ANALISA REKONFIGURASI JARINGAN GUNA MEMINIMALISIR *DROP* TEGANGAN DAN RUGI-RUGI DAYA LISTRIK PADA PENYULANG 20 KV MARISA

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KATA PENGANTAR

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ABSTRACT

YOGI ANDREAN. T2120023. ***DISTRIBUTION LINE RECONFIGURATION ANALYSIS TO MINIMIZE VOLTAGE DROP AND ELECTRICITY LOSS ON THE 20 KV MARISA FEEDER***

This study aims to determine the value of the voltage drop and power losses of the GI Marisa feeder before and after reconfiguration of the 20 kV distribution network. This study uses a simulation with the help of ETAP 12.6 software with the Newton Rhapson method. The results showed that the reconfiguration of the Marisa ULP electrical system at the Marisa Outgoing 20 GI was able to minimize the voltage drop on each 20 kV Marisa GI bus and Marisa Hubung Substation (GH) as well as the bus at the end of the line. The percentage increase in the average voltage value is 3%. After reconfiguration for active and reactive power losses there is a decrease. The percentage of active power losses is 1.3% and reactive power is 1.5%, thus providing better system performance.

Keywords: Voltage, Power Losses, ULP Marisa.

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ABSTRAK

YOGI ANDREAN. T2120023. ANALISA REKONFIGURASI JARINGAN GUNA MEMINIMALISIR DROP TEGANGAN DAN RUGI-RUGI DAYA LISTRIK PADA PENYULANG 20 KV MARISA

Penelitian ini bertujuan untuk mengetahui nilai jatuh tegangan dan rugi-rugi daya terhadap penyulang GI Marisa sebelum dan setelah rekonfigurasi jaringan distribusi 20 kV. Penelitian ini menggunakan simulasi dengan bantuan software ETAP 12.6 dengan metode Newton Rhapson. Hasil penelitian menunjukkan bahwa dengan adanya rekonfigurasi pada sistem kelistrikan ULP Marisa di GI Marisa Out going 20 adalah dapat meminimalisir drop tegangan pada setiap bus GI Marisa 20 kV dan Gardu Hubung (GH) Marisa serta bus pada ujung saluran. Persentase kenaikan nilai tegangan rata-rata adalah sebesar 3%. Sesudah rekonfigurasi untuk rugi-rugi daya aktif dan reaktif terjadi penurunan. Persentase rugi-rugi daya aktif adalah sebesar 1,3% dan daya reaktif adalah sebesar 1,5%, sehingga memberikan performance sistem lebih baik.

Kata kunci : Tegangan, Rugi-rugi Daya, ULP Marisa.

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BAB I

PENDAHULUAN

1.1 Latar Belakang

Perkembangan sistem kelistrikan di Indonesia saat ini telah mengarah pada peningkatan efisien dalam penyaluran energi listrik oleh karena listrik telah menjadi kebutuhan listrik bagi masyarakat. Peningkatan pemakaian energi yang dibarengi oleh peningkatan ekonomi suatu daerah, sehingga diharapkan kepada penyedia listrik agar dalam sistem penyaluran menjadi efisien dan handal. Permintaan konsumen akan energi listrik dari tahun ke tahun yang semakin meningkat, salah satu contohnya disektor industri (Putra, 2016).

Sistem distribusi listrik harus sistematik agar memperoleh pelayanan yang optimal. Untuk mengatasi peningkatan kebutuhan akan energi listrik dibutuhkan sistem distribusi yang esensial. Tujuan pengembangan sistem distribusi yang harus memenuhi beberapa kriteria teknis dan ekonomis. Sistem distribusi harus mampu memberikan gambaran besarnya beban pada lokasi geografis tertentu, sehingga dapat ditentukan dengan baik letak dan kapasitas gardu-gardu distribusi yang akan melayani areal beban tersebut dengan mempertimbangkan minimisasi susut energi dan investasi konstruksi, tanpa mengurangi kriteria teknis yang diperlukan (RH, 2016).

Sistem energi listrik yang berperan langsung menyalurkan energi listrik ke konsumen. Sistem penyalurannya dimulai dari pusat-pusat listrik dalam hal ini adalah sistem pembangkitan energi listrik. Setelah dari pembangkit energi listrik dikirim melalui jaringan tegangan tinggi yang kemudian didistribusikan kejaringan

tegangan menengah. Setelah itu di disalurkan lagi melalui saluran tegangan rendah sampai pada sambung rumah dan berakhir pada alat pembatas dan pengukuran (APP) yang ada pada konsumen (Nelwan et al., 2015).

Sistem kelistrikan di Gorontalo saat ini telah mempunyai 4 (empat) pusat pembangkit berskala besar yang terinterkoneksi melalui saluran udara tegangan tinggi 150 kV yaitu Pembangkit Listrik Tenaga Uap (PLTU) Molotabu dengan kapasitas daya 2x12,5 MW, Pembangkit Listrik Tenaga Gas (PLTG) Maleo dengan kapasitas daya 4x25 MW, Pembangkit Listrik Tenaga Uap (PLTU) Anggrek dengan kapasitas daya 2x25 MW dan PLTU Tanjung Karang dengan kapasitas 2 x 100 MW. Pembangkit ini akan mengirimkan energi listrik ke pusat-pusat beban yaitu Gardu Induk (GI). Disamping itu terdapat pembangkit tersebar yang terinjeksi ke sistem saluran distribusi 20 kV yaitu PLTD Telaga, PLTMH Mongango, PLTMH Taludaa, PLTS Sumalata dan PLTS Isimu.

Pusat-pusat beban Gardu Induk (GI) yang ada di Wilayah kerja Gorontalo yaitu GI Angrek, GI Marisa, GI Isimu, GI Botupingge, GI Tilamuta dan GI Gorontalo Baru (Gobar). Setelah dari GI ini energi listrik disalurkan melalui jaringan tegangan menengah 20 kV yang kemudian disalurkan ke jaringan tegangan rendah dan konsumen. Seiring dengan bertambahnya permintaan akan energi listrik di Gorontalo maka sistem kelistrikan haruslah direncanakan dengan baik dan handal.

PLN UP3 Gorontalo memegang peranan langsung didalam pelayanan pelanggan listrik. PLN UP3 Gorontalo memiliki 4 (empat) wilayah kerja Unit Layanan Pelanggan (ULP) yaitu ULP Telaga, ULP Limboto, ULP Kwandang dan ULP Marisa. Sesuai data dari PLN UP3 Gorontalo bahwa ada beberapa penyulang

yang mengalami drop tegangan yang diakibatkan oleh panjang saluran dan peningkatan permintaan beban energi listrik. Salah satunya pada Unit Layanan Pelanggan (ULP) Marisa yang merupakan salah satu unit pelayanan pelanggan di wilayah ujung Barat Gorontalo yang memiliki banyak permintaan akan energi listrik ditambah lagi dengan sistem penyaluran yang panjang dan jauh dari pusat pembangkit. Sehingga dituntut agar dapat memberikan pelayanan kontuinitas akan energi listrik yang baik dan handal.

Unit Layanan Pelanggan (ULP) Marisa mengambil langkah cepat untuk dapat segera melakukan rekonfigurasi jaringan distribusi pada penyulang yang mengalami drop tegangan. Akibat dari rekonfigurasi jaringan tersebut akan memberikan pengaruh pada pola aliran daya sistem kelistrikan di Gorontalo terhadap tegangan dan rugi-rugi daya sistem, terutama pada sistem penyaluran distribusi ULP Marisa. Berdasarkan permasalahan di atas maka penulis mengangkat judul penellitian ini yaitu : "**Analisis Rekonfigurasi Jaringan Guna Meminimalisir *Drop* Tegangan dan Rugi-Rugi Daya Listrik pada penyulang 20 kV Marisa ".**

1.2 Rumusan Masalah

Rumusan Masalah adalah:

a. Bagaimana nilai *drop* tegangan terhadap penyulang GI Marisa sebelum dan setelah rekonfigurasi jaringan distribusi 20 kV.
b. Bagaimana rugi-rugi daya terhadap penyulang GI Marisa sebelum dan setelah rekonfigurasi jaringan distribusi 20 kV.

1.3 Tujuan Penelitian

Tujuan penilitian adalah :

a. Mengetahui nilai jatuh tegangan terhadap penyulang GI Marisa sebelum dan setelah rekonfigurasi jaringan distribusi 20 kV.
b. Mengetahui rugi-rugi daya terhadap penyulang GI Marisa sebelum dan setelah rekonfigurasi jaringan distribusi 20 kV.

1.4 Batasan Masalah

Batasan masalah adalah:

a. Analisis sistem kelistrikan dilakukan sebelum dan setelah rekonfigurasi jaringan pada penyulang distribusi 20 kV MR.03 GH Marisa.
b. Menggunakan bantuan software ETAP 12.6
c. Metode yang digunakan adalah metode *Newton-Raphson*.
d. Data beban yang di gunakan adalah data beban siang dan beban puncak malam.
e. Ketidakseimbangan beban diambil berdasarkan data pengukuran gardu distribusi siang hari dan malam hari.

1.5 Manfaat Penelitian

Manfaat penelitian diharapkan sebagai bahan evaluasi terhadap perencanaan dan pengembangan sistem dimasa yang akan datang apabila terdapat penambahan beban penyulang dan rekonfigurasi jaringan sistem distribusi.

BAB II

TINJAUAN PUSTAKA

2.1 Penelitian Terdahulu

Beberapa kajian dari penelitian terdahulu yang berkaitan dengan penelitian ini, sehingga dapat dijadikan referensi. Kajian-kajian penelitian yang sudah dilakukan oleh peneliti-peneliti sebelumnya, diantaranya penelitian yang dilakukan oleh Bayu Pradana Putra Purba dkk yaitu Analisa Perhitungan Susut Teknis Dengan Pendekatan Kurva Beban Pada Jaringan Distribus PT. PLN (PERSERO) Rayon Medan Kota. Metode yang digunakan dalam menganalisa penelitian ini dengan cara mengumpulkan data, data tersebut didapatkan dengan mengambil data pada PT. PLN (PERSERO) Rayon Medan Kota. Data yang dikumpulkan adalah data pada Gardu Induk Glugur TD II. Setelah itu mencari daya input ke penyulang JTM, lalu menghitung susut teknis JTM, selanjutnya mencari daya input ketrafo distribusi sekalian menghitung susut teknis trafo dan menghitung susut total (Purba & Warman, 2014).

Kartoni S dkk telah melakukan penelitian yang berjudul Analisa Rekonfigurasi Pembebanan Untuk Mengurangi Rugi-Rugi Daya Pada Saluran Distribusi 20 kV. Lokasi yang dipilih untuk penelitian ini adalah penyulang bangau sakti rayon Panam Pekanbaru. Analisa dalam penelitian ini dengan melakukan pengumpulan data dari PLN kemudian disimulasikan menggunakan *softwere* ETAP 12.6. Metode yang di gunakan adalah pemodelan sistem tenaga listrik sesuai dengan one line diagram dengan softwere ETAP 12.6, lalu memasukan data trafo, bus, status switch (pemutus yang di pakai), parameter saluran (panjang saluran, jenis penghantar). Kemudian

melakukan simulasi aliran daya, dari simulasi bisa dilakukan analisa tentang losses pada feeder dan menghitung presentase losses dan drop tegangan. Setelah di analisa dilakukan rekonfigurasi dan dianalisa kembali sampai mendapatkan hasil yang di inginkan (Kartoni S & Ervianto, 2016)

Hari Prasetijo dalam penelitian tentang rekonfigurasi jaringan distribusi 20 kV menjelaskan Susut tegangan dan daya yang terjadi pada dasarnya disebabkan oleh beberapa faktor seperti : panjang jaringan, penampang kabel yang digunakan, arus beban yang mengalir, dan sebaginya. Dengan meningkatnya permintaan energi listrik (Pertumbuhan kebutuhan tenaga listrik di daerah Purwokerto mencapai 8,35% per tahun) jaringan listrik mengalami perluasan dan menjadi lebih kompleks. Bertambahnya beban juga akan menaikkan susut tegangan dan daya pada jaringan jika tidak direncanakan atau diantisipasi dengan baik. selain karena saluran menjadi lebih panjang, arus beban yang mengalir menjadi lebih besar (Hari Presetijo,2011)

Erhaneli dan Ade Rizki dalam penelitiannya tentang pengaruh penambahan jaringan terhadap drop tegangan pada SUTM 20 kV menjelaskan bahwa pada Feeder Kersik Tuo mempunyai jenis jaringan radial murni. Dimana pada jenis jaringan ini transformator distribusi yang terhubung dengan sebuah feeder tegangan menengah yang keluar dari pembangkit tidak memiliki alternatif suplai sehingga jika gangguan terjadi sulit untuk mengantisipasinya. Feeder kersik tuo mempunyai saluran sepanjang (96,8 kms) dalam mengalirkan listrik terhadap konsumen dan akan dilakukan lagi penambahan jaringan distribusi sepanjang (10,2 kms). Sehingga dengan saluran yang panjang tentu akan terjadi drop tegangan karena dipengaruhi oleh impedansi saluran. Selain itu gangguan luar juga dapat mempengaruhi tegangan

yang diterima oleh pelanggan. Pada saat ini teganggan yang ada pada ujung jaringan adalah sebesar ± 17 kV. Beban puncak pada feeder kersik tuo terjadi pada jam 18:00 sampai dengan 22:00. Pada saat selain beban puncak tegangan pada ujung feeder kersik tuo menjadi 18 kV, hal ini disebabkan karena pemakai energi listrik yang berkurang pada konsumen (Erhaneli, 2013).

Umar pada penelitiannya tentang analisa rugi daya akibat penambahan penyula baru pada Gardu Induk (GI) menjelaskan bahwa kebutuhan energi listrik terus meningkat, hal ini bisa menjadi masalah serius jika PLN tidak membuat perencanaan yang baik. Peningkatan efisiensi harus selalu menjadi perhatian. Perencanaan pembuatan penyulang baru dari GI yang berbeda untuk mensuplai permintaan tambahan kebutuhan listrik industri merupakan langkah mengefisiensikan penyaluran energi listrik atau mengurangi rugi daya listrik PLN. Tujuan penelitian ini menganalisa perhitungan rugi daya akibat perubahan jaringan/penambahan penyulang sehingga dapat diketahui efisiensi yang bisa diperoleh. Metode analisis dilakukan dengan menggunakan software ETAP 12.6 untuk mengetahui kontribusi penyulang baru terhadap rugu-rugi daya. Analisis simulasi terhadap perencanaan penyulang baru didapatkan hasil rugi-rugi daya aktif dari semula 306 kW dan rugi-rugi daya reaktif 986 kVar menjadi 231 kW dan 786 kVar (Umar,2017).

Aditya A. Nugroho dalam penelitiannya tentang analisa pengaruh penambahan penyulang untuk mengatasi jatuh tegangan dan rugi daya menjelaskan bahwa Permasalahan yang sering terjadi yakni arus beban penyulang akan menyuplai melebihi arus standar dari SPLN yaitu setengah dari 480 A. Arus yang melebihi standar tersebut merupakan salah satu faktor terjadinya jatuh tegangan yakni tegangan pada pangkal

jaringan mengalami penurunan hingga ke ujung jaringan dan juga rugi daya, dimana daya yang dikirim pada jaringan distribusi tidak semuanya sampai pada pelanggan. Penyulang SRN 03 memiliki nilai arus yang terukur pada salah satu fasanya 285A dengan panjang jaringan 22,08 km. Penambahan penyulang baru MSR 13 dilakukan untuk memecah beban SRN 03. Analisa nilai jatuh tegangan dan rugi daya pada jaringan dilakukan dengan menggunakan perhitungan manual dan simulasi software ETAP 12.6.0. Perhitungan manual yang diperoleh pada penyulang SRN 03 yaitu nilai tegangan terima akibat jatuh tegangan 18,49 kV dan rugi daya 328,42 kW, setelah dilakukan pemecahan beban oleh penyulang MSR 13 nilai tegangan terima akibat jatuh tegangan menjadi 19,471 kV dan rugi daya menjadi 68,282 kW. Hasil simulasi ETAP 12.6.0 pada penyulang SRN 03 yaitu nilai tegangan terima akibat jatuh tegangan 18,39 kV dan rugi daya 344 kW, setelah dilakukan pemecahan beban oleh penyulang MSR 13 nilai tegangan terima akibat jatuh tegangan menjadi 19,439 kV dan rugi daya menjadi 66,8 kW (Aditya A. Nugraha, 2020).

Abrar Tanjung dalam penelitiannya tentang rekonfigurasi sistem distribusi 20 kV Gardu Induk Teluk Lembu dan PLTMG Langgam Power menjelaskan bahwa Feeder Cemara untuk memenuhi kebutuhan energi listrik sepanjang jalan lintas timur kabupaten pelalawan sudah cukup tinggi. Sehingga menyebabkan rugi daya (*power losses*) dan jatuh tegangan (*voltage drop*) cukup tinggi. Akibatnya kualitas pelayanan listrik menjadi rendah. Untuk mengurangi beban pada Feeder Cemara, maka akan dilakukan Rekonfigurasi dari Feeder Cemara Gardu Induk teluk lembu ke Feeder Langgam PLTMG langgam Power. Berdasarkan hasil analisa pembahasan dan perhitungan menggunakan Program ETAP 7.5 tegangan terendah pada saluran Feeder Cemara terdapat pada trafo TR.1064 sebesar 16,27 kV sedangkan tegangan

terendah pada Feeder Langgam pada trafo SP.26 sebesar 19,87 kV dengan rugi daya total sebesar 731,04 kW. Setelah dilakukan rekonfigurasi, maka rekonfigurasi 2 maka tegangan terendah Feeder Cemara terdapat pada trafo TR.1102 sebesar 18,70 kV, pada saluran Feeder Langgam yaitu pada trafo SP.26 sebesar 19,05 kV dan pada saluran Feeder Pasir putih pada trafo ST.262 sebesar 18,78 kV dengan rugi daya total sebesar 410,65 kW. Penghematan rugi daya total diperoleh sebesar 320,39 kW (Abrar T, 2014).

Wahyu Belfias Eka Putra Daya dalam penelitiannya tentang Analisa Pecah Beban penyulang KB5 untuk perbaikan tegangan dan susut bahwa Permasalahan yang di hadapi PLN saat ini adalah tingginya angka susut tegangan yang melebihi standar. pembagian beban pada suatu penyulang dengan membangun penyulang baru merupakan salah satu solusi menaikan tegangan, sedangkan untuk menentukan lokasi pemecahan beban tersebut dapat di gunakan aplikasi ETAP dengan memasukan parameter - parameter yang di perlukan seperti resistansi saluran, panjang saluran dan beban penyulang dan setiap gardu, pada simulasi aplikasi ETAP dengan data Eksisting, tegangan ujung pada penyulang KB5 adalah 17 kV hal tersebut tidak sesuai dengan setandar PLN minimal 5% dari 20 kV yaitu 19 kV, maka dari itu di perlukan pembangunan penyulang untuk pemecah beban penyulang KB5 tersebut untuk rencana pembangunan dibuat 3 kondisi agar didapat kenaikan tegangan paling baik, pada kondisi pertama akan di bangun jaringan sampai desa Perlang tegangan yang di dapat adalah pada KB5 yaitu 19,0 kV dan tegangan pada KB6 yaitu 19,4 kV , kondisi kedua di bangun penyulang sampai desa Lubuk tegangan pada KB 5 yaitu sebesar 19,3 kV dan tegangan pada KB6 yaitu 19,1 kV, pada kondisi ketiga dibangun

jaringan sampai desa Kulur tegangan pada KB5 yaitu 18,8 kV sedangkan tegangan pada KB6 yaitu 19,7 kV, maka kesimpulannya adalah kondisi pertama adalah kondisi paling baik untuk rencana pembangunan penyulang pecah beban.

2.2 Dasar Teori

2.2.1. Rekonfigurasi jaringan

Rekonfigurasi jaringan (*network reconfiguration*) merupakan suatu usaha merubah bentuk konfigurasi jaringan distribusi dengan mengoperasikan pensakelaran terkontrol jarak jauh (*switching remotely controlled*) pada jaringan distribusi tampa menimbulkan akibat yang beresiko pada operasi dan bentuk sistem jaringan distribusi secara keseluruhan (Fayyadl, Sukmadi, & Winardi, n.d.). Rekonfigurasi jaringan juga dapat dilakukan dengan menambahkan jaringan-jaringan baru, menyisipkan trafo distribusi pada jaringan distribusi, dapat pula dilakukan dengan memindahkan beban-beban penyulang ke penyulang yang berdekatan dengan cara mengubah status dari LBS (*load breaking switch*) dan mengubah letak posisi dari LBS.

2.2.2 Sistem Tenaga Lisstrik

Sistem tenaga listrik adalah suatu sistem yang dimulai dari gardu induk yang memiliki daya listrik besar (*bulk power source*) lalu dikirimkan langsung ke konsumen, tetapi tegangannya diturunkan terlebih dahulu oleh trafo distribusi menjadi tegangan 20 kV (Hakim, 2012). Adapun sitem distribusi tersebut adalah sebagai berikut:

1. Pembangkit

Pembangkit berfungsi untuk membangkitkan energi listrik yang akan disalurkan ke konsumen. Pembangkit dapat menghasilkan energi listrik memerlukan suatu sumber yang menjadi tenaga untuk pembangkit. Sumber tersebut berasal dari alam, seperti fosil-fosil berupa batu bara yang digunakan pada pembangkit listrik tenaga uap (PLTU), matahari untuk pembangkit listrik tenaga surya (PLTS), air untuk pembangkit listrik tenaga air (PLTA), gas untuk pembangkit listrik tenaga gas (PLTG) minyak bumi untuk pembangkit listrik tenaga diesel (PLTD), panas bumi untuk pembangkit listrik tenaga panas bumi (PLTP), dan masih banyak lagi.

2. Gardu Induk

Gardu induk adalah salah satu unit pada sistem distribusi yang menerima energi listrik lalu kemudian di salurkan ke sistem transmisi. Pada gardu induk tegangan yang dihasilkan pembangkit dinaikan menjadi 70 kV-500 kV.

3. Jaringan Transmisi

transmisi adalah jaringan yang berfungsi untuk menyalurkan energi listrik yang diterima dari gardu induk dan di teruskan ke jaringan distribusi. Sebelum di teruskan ke jaringan distribusi tegangan dari jaringan transmisi di turunkan terlebih dahulu oleh trafo *step down*. Jaringan transmisi juga digunakan untuk menghubungkan pembangkit dengan gardu induk dan gardu induk yang satu dengan gardu induk yang lainnya. Jaringan transmisi memiliki dua tegangan yaitu tegangan tinggi dan tegangan ekstra tinggi. Jaringan transmisi tegangan tinggi memiliki tegangan 70 kV sampai 150 kV,

sedangkan ekstra tinggi memiliki tegangan 275 kV sampai 500 kV. Energi listrik pada jaringan transmisi di salurkan melalui saluran udara dan saluran bawah laut.

4. Gardu Hubung

   Gardu hubung berfungsi untuk menerima energi listrik yang dikirimkan oleh jaringan transmisi kemudian disalurkan ke jaringan tegangan menengah (penyulang primer). Sebelum disalurkan ke jaringan distribusi, tegangan (70 kV sampai 500 kV) pada jaringan transmisi diturunkan oleh gardu hubung menjadi tegangan 20 kV

5. Jaringan Distribusi Primer

   Jaringan in berfungsi untuk menerima energi listrik yang dikirimkan oleh gardu hubung dan di salurkan ke jaringan tegangan rendah atau dikirim langsung ke konsumen. Jaringan ini memiliki tegangan 20 kV.

6. Transformator Distribusi

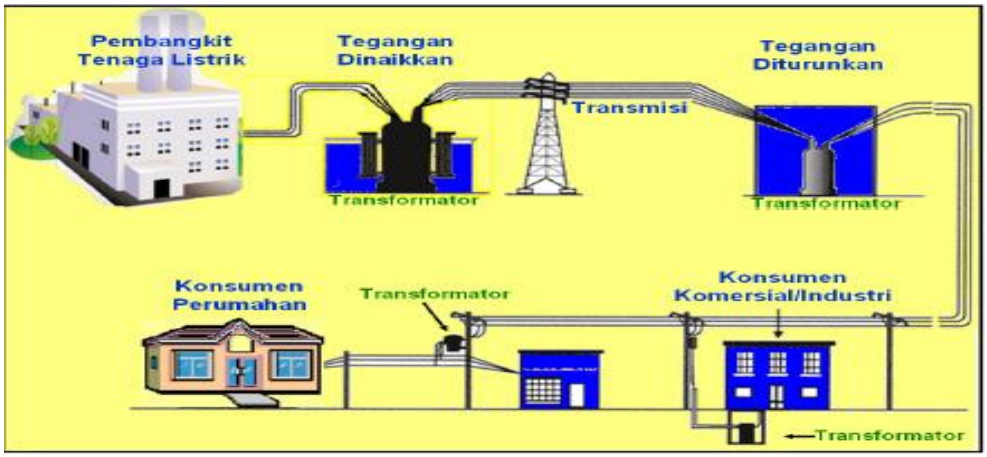
   Transformstor distribusi adalah transformator yang berfungsi untuk menurunkan tegangan dari 20 kV menjadi 380V/220V kemudian di salurkan ke jaringan tegangan rendah.

7. Jaringan Distribusi Sekunder

   Jaringan ini memiliki tegangan sebesar 380V/220V yang kemudian disalurkan pada konsumen

8. Konsumen

   Konsumen adalah pengguna energi listrik. Daya listrik yang digunakan oleh konsumen tergantung dengan kWh meter yang digunakan.



Gambar 2.1 Sistem Tenaga Listrik

2.3 Jaringan Distribusi

Jaringan distribusi merupakan sistim energi listrik yang berperan langsung untuk menyalurkan energi listrik ke konsumen. Berdasarkan tegangannya jaringan distribusi terbagi menjadi dua yaitu jaringan distribusi tegangan menengah (JTM) atau disebut dengan jaringan distribusi primer dan jaringan distribusi tegangan rendah (JTR) atau distribusi sekunder.

a. Jaringan tegangan distribusi primer pada umumnya memiliki tegangan 20 kV. Energi listrik pada jaringan in disalurkan mengunakan saluran kabel tegangan menengah (SKTM) dan saluran udara tegangan menengah (SUTM).

b. Jaringan tegangan distribusi sekunder pada umumnya memiliki tegangan 220 V sampai 380 V. Untuk saluran distribusi sekunder bisa berupa saluran kabel tegang rendah (SKTR) dan saluran udara tegangan rendah (SUTR).

Berikut ini komponen-komponen utama yang berperan penting dalam jaringan distribusi yaitu :

1. Tiang

   Tiang adalah salah satu komponen pada jaringan distribusi. Tiang berfungsi untuk penyangga penghantar/konduktor pada saluran udara. Biasanya tiang yang digunakan pada jaringan distribusi yaitu tiang besi dan tiang beton.

2. Isolator

   Isolator merupakan peralatan listrik yang mengisolasi penghantar/konduktor.

3. Penghantar/Konduktor

   Penghantar adalah peralatan listrik yang berfungsi untuk menghantarkan/menyalurkan listrik ke konsumen.

4. Fuse Cut Out (FCO)

   Fuse Cut Out adalah peralatan listrik yang berfungsi untuk memutuskan rangkaian listrik yang berbeban pada jaringan distribusi. FCO bekerja dengan cara meleburkan bagian dari komponennya (Fuse Link) yang telah dirancang khusus dan disesuaikan ukurannya.

5. Transformator

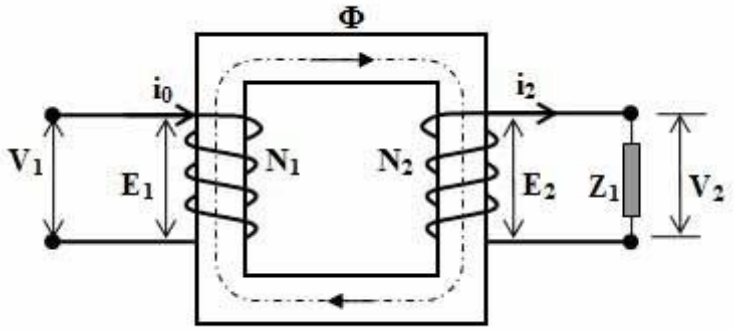
   Transformator adalah suatu peralatan listrik yang berfungsi untuk menaik dan menurunkan tegangan. Pada jaringan distribusi transformator berfungsi untuk menurunkan tegangan dari tegangan tiggi atau ekstra tinggi (70 kV – 500 kV) ke tegangan menengah (20 kV), dari tegangan menengah (20 kV), ke tegangan rendah (380 V/220 V).

2.4 Transformator Daya

Transformator daya (trafo daya) merupakan alat listrik yang termasuk kedalam klasifikasi mesin listrik static yang berfungsi menaikkan tenaga listrik atau daya listrik dari pembangkit ke gardu induk (Bahri, Gianto, & Arsyad, 1986). Pengoperasian trafo pada umumnya, trafo-trafo tenaga ditanahkan pada titik netralnya sesuai dengan kebutuhan untuk sistem pengamanan/proteksi. Contohnya transformator 150/70 kV ditanahkan secara langsung di sisi netral 150 kV, dan transformator 70/20 kV di tanahkan dengan tahanan di sisi netral 20 kV nya. Transformator yang telah diproduksi terlebih dahulu melalui pengujian sesuai standar yang telah ditetapkan.

Dalam menyalurkan daya transformator menggunakan prinsip hukum induksi *faraday* dan hukum *lorentz*, dimana arus bolak balik yang mengalir mengelilingi suatu inti besi maka inti besi itu akan menjadi magnet. Apabila magnet tersebut dikelilingi oleh belitan maka pada kedua ujung belitan akan terjadi beda potensial.

Arus yang mengalir pada belitan primer akan menginduksi inti besi transformator sehingga inti besi akan mengalir flux magnetic dan flux magnetik ini akan menginduksi belitan sekunder, sehingga pada ujung belitan sekunder ini akan terdapat beda potensial. (Safala, 2016)



Gambar 2.2 Prinsip Kerja Transformator

Berikut ini rumus tegangan transformator yaitu

$$E_1 = 44{,}4 \times N_1 \times F_1 \times \Phi_{max} \times 10^{-8} \quad (2.1)$$

Maka untuk transformator rumus tersebut sebagai berikut:

$$E_1 = 44{,}4 \times N_1 \times F_1 \times \Phi_{max} \times 10^{-8}$$
$$E_2 = 44{,}4 \times N_2 \times F_2 \times \Phi_{max} \times 10^{-8} \quad (2.2)$$

Karena f 1 = f 2

Dimana :

E1 = tegangan primer (volt)

E2 = tegangan sekunder (volt)

f1 = frekuensi primer (Hz)

f2 = frekuensi sekunder (Hz)

maka :

$$E_1 : E_2 = N_1 : N_2 \quad (2.3)$$

$$E_1 \times E_2 = N_1 \times N_2 \quad (2.4)$$

$$E_2 = (N_2 / N_1) \times E_1 \quad (2.5)$$

Dimana :

E_1 = tegangan primer (volt)

E_2 = tegangan sekunder (volt)

N_1 = belitan primer

N_2 = belitan sekunder

VA primer = VA sekunder

$$I_1 \times E_1 = I_2 \times E_2 \tag{2.6}$$

$$\frac{E_1}{E_2} = \frac{I_2}{I_1} \text{ maka } I_1 = I_2 \frac{E_2}{E_1} \tag{2.7}$$

Dimana :

I_1 = Arus primer (ampere)

I_2 = Arus sekunder (ampere)

E_1 = Tegangan primer (volt)

E_2 = Tegangan sekunder (volt)

Rumus umum menjadi :

$$a = \frac{E_1}{E_2} = \frac{N_1}{N_2} = \frac{I_2}{I_1} \tag{2.8}$$

Maka :

$$E_1 = \frac{E_2 \times N_1}{N_2} \tag{2.9}$$

Pada transformator di haruskan tegangan keluarannya adalah konstan sedangkan tegangan yang masuk ke transformator selalu berubah-ubah. Dengan demikian ketika tegnagn masuk ke transformator (E_1) mengalami penurunan, agar

tegangan keluaran transformator (E_2) konstan maka perlu di tambahkan belitan (N_1) maupun sebaliknya.

2.5 Jatuh Tegangan

Jatuh tegangan adalah besarnya tegangan yang hilang pada suatu penghantar. Jatuh tegangan pada saluran tenaga listrik berbanding lurus dengan panjang saluran dan beban serta berbanding terbalik dengan luas penampang. Untuk mengetahui besar tegangan pada sisi beban maka dihitung terlebih dahulu besar jatuh tegangan yang terjadi di sepanjang saluran sebelum masuk ke beban. Jatuh tegangan ini dapat di tentukan dengan rumus sebagai berikut :

$$\Delta V = Vs - Vr \tag{2.10}$$

Dimana:

ΔV = Jatuh tegangan

V_s = Tegangan kirim

V_r = Tegangan terima

Karena pada penghantar terdapat resistansi maka tegangan yang diterima konsumen (V_r) akan lebih kecil dari tegangan kirim (V_s), sehingga jatuh tegangan (V_{drop}) merupakan selisih antara tegangan pada pangkal pengiriman (sending end) dan tegangan pada ujung penerima (*receiving end*) tenaga listrik. Tegangan jatuh relatip dinamakan regulasi tegangan (V_R) dan dapat dijabarkan dengan rumus (Hariyadi, 2017) :

$$V\% = \frac{V_s - V_r}{V_r} x100\% \tag{2.11}$$

Dimana :

V% = jatuh tegangan dalam %

Vs = Tegangan kirim

Vr = Tegangan terima

Menghitung jatuh tegangan dalam persen menggunakan rumus sebagai berikut:

Perhitungan jatuh tegangan 3 fasa

$$(\Delta V) = \sqrt{3} \times I \times L(R \times \cos\varphi + X \times \sin\varphi) \quad (2.12)$$

Perhitungan jatuh tegangan 1 fasa

$$(\Delta V) = I \times L(R \times \cos\varphi + X \times \sin\varphi) \quad (2.13)$$

Dimana :

I = Arus beban (A)

R = Tahanan rangkaian (ohm)

X = Reaktansi rangkaian (ohm)

L = Panjang penghantar (Km)

2.6 Impedansi Saluran

Impedansi merupakan parameter utama suatu saluran transmisi atau distribusi. Impedansi (Z) terdiri dari Resistansi (R) dan Reaktansi (X). Penjumlahan antara resistansi dan reaktansi disebut dengan impedansi. Impedansi pada saluran transmisi atau distribusi perlu diketahui untuk melakukan analisa sistem, baik untuk analisa aliran daya, hubung singkat, proteksi, dan kestabilan sistem maupun kontrol sistem. Salam mencari nilai resistansi dan reaktansi (induktif dan kapasitif) ditentukan oleh jarak antar saluran dan jumlah serat kawat penghantarnya. Biasanya

reaktansi kapasitif dapat diabaikan untuk sistem bertegangan rendah dan menengah, karena nilainya relatif kecil dibandingkan dengan reaktansi induktif.

$$Z = R + jX \tag{2.14}$$

Dimana :

Z = Impedansi saluran (ohm)

R = Tahanan Saluran (ohm)

jX = Reaktansi (ohm)

1. Resistansi Penghantar

Tembaga dan aluminum merupakan material yang biasa digunakan sebagai konduktor. Untuk saluran transmisi dan distribusi banyak digunakan aluminum. Berikut jenis-jenis konduktor aluminum (Sudirham, 2012).

- Aluminum: AAL (*all aluminum coductor*)
- Aloy aluminum: AAAL (*all aluminum alloy conductor*)
- Aluminum dengan penguatan kawat baja: ACSR (*aluminum conductor steel reinforced*)

Data mengenai ukuran, konstruksi, resistansi [Ω per km], radius [cm], GMR [cm] (*Geometric Mean Radius*), serta kemampuan mengalirkan arus [A], dapat kita peroleh dari standar/spesifikasi peralatan.

Tiap konduktor memberi perlawanan atau tahanan terhadap mengalirnya arus listrik dan hal ini dinamakan resistansi. Resistansi atau tahanan dari suatu konduktor (kawat penghantar) adalah penyebab terpenting dari rugi daya (*power losses*) pada saluran transmisi, resistansi yang dimaksud adalah

resistansi efektif yaitu perbandingan rugi daya pada penghantar dengan arus pangkat dua (Tanjung, 2012).

Relasi resistansi untuk arus searah adalah

$$R = \rho \frac{l}{A} \qquad (2.15)$$

dengan l panjang konduktor [m], A luas penampang konduktor [m^2], dan ρ adalah resistivitas bahan.

2. Reaktansi Penghantar

Konduktor yang dialiri oleh arus listrik dikelilingi oleh garis-garis magnetik yang berbentuk lingkaran-lingkaran konsentrik. Arus bolak-balik medan yang berada disekeliling konduktor tidaklah konstan melainkan akan selalu berubah-ubah dan akan mengait konduktor itu sendiri maupun dengan konduktor-konduktor lainnya yang terletak berdekatan. Dengan adanya kaitan-kaitan fluks tersebut maka saluran akan memiliki sifat induktansi. Reaktansi pada saluran transmisi atau distribusi terdiri dari reaktansi induktif (jX) dan reaktansi kapasitif (-jX). Namun pada saluran distribusi, reaktansi kapasitif sangat kecil, sehingga biasanya diabaikan.

Tabel 2.1 Impedansi Saluran

Luas Penampang (mm^2)	$Jari^2$ (mm)	Urat (buah)	GMR (mm)	KHA penghantar AAAC	Impedansi urutan positif (Ohm / km)	Impedansi urutan Nol (Ohm / km)
16	2,2563	7	1,6380	105	2,0161 + j 0,4036	2,1641 + j 1,6911
25	2,8203	7	2,0475	135	1,2903 + j 0,3895	1,4384 + j 1,6770
35	3,3371	7	2,4227	170	0,9217 + j 0,3790	1,0697 + j

						1,6665
50	3,9886	7	2,8957	210	0,6452 + j 0,3678	0,7932 + j 1,6553
70	4,7193	7	3,4262	255	0,4608 + j 03572	0,6088 + j 1,6447
95	5,4979	19	4,1674	320	0,3096 + j 0,3449	0,4876 + j 1,6324
120	6,1791	19	4,6837	365	0,2688 + j 0,3376	0,4168 + j 1,6324
150	6,9084	19	5,2365	425	0,2162 + j 0,3305	0,3631 + j 1,6180
185	7,6722	19	5,8155	490	0,1744 + j 0,3239	0,3224 + j 1,6114
240	8,7386	19	6,6238	585	0,1344 + j 0,3158	0,2824 + j 1,6034

Sumber: (SPLN 64:1985, 1985)

Besarnya reaktansi induktif (X) diformulasikan sebagai berikut (RH, 2016) :

$$X = 2\pi fL \qquad (2.16)$$

Dimana :

f = Frekuensi (Hz)

L = Induktansi (Henry)

X = Reaktansi Induktif (ohm)

2.7 Studi Aliran Daya

Aliran daya merupakan studi dasar dalam menganalisa suatu sistem tenaga listrik, baik untuk perencanaan maupun operasi. Pada dasarnya sasaran utama dari semua analisa aliran daya adalah untuk menentukan besar dan sudut fasa tegangan pada setiap bus, dengan diketahuinya tegangan maka daya aktif (P) dan daya reaktif (Q) dapat di hitung. Jika P dan Q pada dua buah bus diketahui maka aliran daya

saluran penghubung dan rugi-rugi daya saluran penghubung dapat diketahui. Tujuan aliaran daya adalah untuk mengetahui besar vektor tegangan pada setiap bus dan besar aliran daya pada setiap cabang suatu jaringan untuk suatu kondisi tertentu dalam kondisi normal. Aliran daya dapat di hitung dengan menggunakan persamaan aplikasi hukum arus kirchoff yaitu (Ir. Marada Sitompul, n.d.) :

$$I_i = yi_0 v_i + y_{i1}(v_i + v_1) + y_{i2}(V_i - v_2) + ... + y_{in}(v_i - v_n)$$
$$= (y_{i0} + y_{i1} + y_{i2} + ... + y_{in})v_i - y_{i1}v_1 - y_{i2}v_2 - ... - y_{in}v_n \quad (2.17)$$

Atau:

$$I_i v_1 \sum_{j=o}^{n} yij - \sum_{j=1}^{n} yijv_j, \; j \neq i \quad (2.18)$$

Daya aktif dan daya reaktif pada bus i adalah

$$P_i + jQ_i = V_i . I_i^* \quad (2.19)$$

Atau

$$I_i = \frac{P_1 - jQ_i}{V_i^*} \quad (2.20)$$

Dari persamaan 2.19 dan 2.20 diperoleh:

$$\frac{P_i - jQ_i}{V_i^*} = V_i \sum_{j=0}^{n} yij - \sum_{j=1}^{n} yijv_j \; j \neq i \quad (2.21)$$

Dari persamaan aliran daya di atas merupakan persamaan matematis yang harus diselesaikan dengan teknik iterasi.

1. Metode analisa aliran daya

Sebelum tahun 1929, semua perhitungan aliran daya dilakukan dengan tangan. Pada tahun 1929, *network calculators* (dari *wasting house*) atau *network anlyzers* (dari *General Electric*) digunakan untuk perhitungan aliran

daya. Namun demikian, metode digital pertama yang sukses dikembangkan adalah oleh ward dan hale pada tahun 1956. Metode iteratif yang digunakan pada awalnya didasarkan pada matriks-Y dari *Gauss-Seidel*. Kekurangan dari metoda *Gauss-Seidel* memicu dikembangkannya metoda *Newton-Raphson*. Metoda ini awalnya dikembangkan oleh van Nesh dan Griffin dan kemudian dikembangkan lagi oleh peneliti-peneliti lain seperti tinney dan stot. Metoda ini didasarkan pada algoritma *Newton-Raphson* untuk penyelesaian persamaan kuadratik simultan dari jaringan daya. Oleh karena itu, masalah aliran daya yang tidak dapat diselesaikan dengan metoda *Gauss-seidel* (misalnya sistem dengan inpedaansi negatif) dapat diselesaikan secara mudah dengan metoda *Newton-Raphson*. Metoda ini dasakan pada fakta bahwa pada setiap jaringan daya yang beroperasi pada keadaan mantap, kopling antara P-θ (daya aktif dan sudut tegangan bus) dan Q-V (daya reaktif dan besar tegangan bus) adalah cukup lemah (Ardi Travolta, Dr. Ir. Rudy Gianto, 2006) dan (Steven Humena, Frengki E.P Surusa, 2018).

2. Metode Newton-Raphson

Metode *Newton-Raphson* adalah metode yang di ciptakan oleh Isaac Newton dan Joseph Raphson. Metode *Newton-Raphson* merupakan metode yang paling banyak digunakan untuk menyelesaikan persaman aljabar nonlinier simultan dibandingkan dengan metode *Gauss-Seidel*. Metode ini pertama yang populer digunakan dalam perhitungan load flow. Metode *Newton-Raphson* memiliki karakteristik konvergensi yang lebih cepat, waktu yang lebih cepat, dan iterasi yang lebih sedikit dibandingkan dengan metode *Gauss-Seidel.*

Newton-Raphson salah satu metode yang digunakan untuk menganalisa aliran daya. Langkah pertama dalam menyelesaikan persamaan aliran daya yaitu membentuk matrik admitansi bus (Y bus). Rumus menghitung admitansi bus ditunjukan pada persamaan berikut (Manuel, 2016):

$$y_{ij} = \frac{1}{z_{ij}} = \frac{1}{r_{ij} + jx_{ij}} \tag{2.22}$$

Dimana:

y_{ij} : admitansi saluran dari bus i ke bus j

z_{ij} : impedansi saluran dari bus i ke bus j

r_{ij} : resistansi saluran dari bus i ke bus j

jx_{ij}: reaktansi saluran dari bus i ke bus j

Setelah menghitung admitansi bus, nilai admitansi di konversikan ke model *rectangular* pada persamaan (2.24) selanjutnya membuat persamaan arus yang ditunjukan pada persamaan (2.23) :

$$I_i = \sum_{j=1}^{n} V_i Y_{ij} \tag{2.23}$$

$$Y_{ij} = G_{ij} + B_{ij} \tag{2.24}$$

Dimana :

I_{ij} : Arus yang mengalir dari bus i

G_{ij} : Tegangan di bus i

B_{ij} : admitansi saluran antara bus i dan bus j

Seperti pada persamaan (2.24), yaitu bentuk *rectangular* dari admitansi, pada persamaan (2.25) merupakan bentuk rectangular dari tegangan.

$$V_i = e_i + jf_i \tag{2.25}$$

Dimana:

Vi : tegangan pada bus i

(ei + jfi) : Komponen rectangular tegangan

Setelah didapatkan persamaan (2.23) dan (2.25), selanjutnya dimasukan ke persamaan aliran daya. Persamaan (2.26) adalah persamaan aliran daya.

$$S_i = P_i + jQ_i = V_i I_i^* \quad (2.26)$$

$$S_i = V_i \sum_{j \in i}^{n} (V_j . Y_{ij})^* \quad (2.27)$$

$$P_i + jQ_i = (e_i + jf_i) \sum_{j \in i} (G_{ij} - j.b_{ij})(e_i - jf_i) \quad (2.28)$$

Persamaan (2.27) dan (2.28) merupakan hasil substitusi persamaan (12) dan (14) ke persamaan (2.26) pada perhitungan daya.

Dimana:

S_i : Kapasitas pada bus i

P_i : Daya aktif pada bus i

jQ_i : Daya reaktif pada bus i

$(G_{ij} - j.B_{ij})$: Komponen rectangular pada admitansi saluran

Setelah menghitung persamaan aliran daya pada persamaan (17), dilakukan hasil pemecahan persamaan (17) ke dalam 2 persamaan yaitu persamaan daya aktif dan daya reaktif.

Daya aktif ditunjukan pada persamaan (2.29) dan persamaan (2.30) :

$$P_i^{rect} = e_i \sum_{j \in i}^{n} (G_{ij} e_j - B_{ij} f_j) + f_i \sum_{j \in i}^{n} (G_{ij} f_j + B_{ij} e_j) \quad (2.29)$$

$$Q_i^{rect} = f_i \sum_{j \in i}^{n} (G_{ij} e_j - B_{ij} f_j) - e_i \sum_{j \in i}^{n} (G_{ij} f_j + B_{ij} e_j) \quad (2.30)$$

Dimana:

P_i^{rect} : Daya aktif pada bus i dengan komponen rectangular

Q_i^{rect} : Daya reaktif pada bus i dengan komponen rectangular.

2.8 Susut Energi

Susut energi dapat dinyatakan dengan selisih energi antara enrgi beli dan energi jual. Energi jual adalah energi yang dikomsumsi oleh pelanggan secara tercatat. Sedangkan energi beli adalah energi yang disuplay P3B (Penyaluran dan Pusat Pengatur Beban). Kondisi ideal adalah energi beli sama dengan energi jual (energi yang sebenarnya digunakan oleh konsumen yang teradministrasi dengan benar) ditambah susut energi teknis akibat jaringan distribusi tersebut di lewati arus. Persamaan susut jaringan distribusi dapat ditulis sebagai berikut:

Susut (dist) = Susut (trafo) + Susut (JTM) + Susut (JTR+SR) (2.31)

Atau dalam bentuk energi :

$$\text{Susut Energi (Dist)} = \frac{E_{in(Dist)} - E_{out(Dist)}}{E_{in(Dist)}} x100\% \qquad (2.32)$$

Susut energi berdasarkan sifatnya dapat dibedakan menjadi dua yaitu susut teknis dan susut non teknis.

1. Susut Teknis

   Susut teknis adalah energi yang hilang pada saluran akibat adanya penyaluran energi ke konsumen. Susut teknis terjadi biasanya diakibatkan oleh panjang jaringan semakin lama semakin bertambah, sehingga mengakibatkan energi listrik yang diterima oleh konsumen tidak sama lagi dengan energi yang

telah disalurkan oleh peralatan listrik. Susut teknis dapat di hitung dengan rumus :

Susut teknis= $I_k^2 ..r_k .t$ (2.33)

Dimana :

I_k^2 = Arus mengalir dikomponen jarigan distribusi

r_k = Resistansi komponen

t = periode waktu pengamatan

2. Susut Non Teknis

Susut energi non teknis merupakan selisih energi dari energi beli dikurangi energi jual. Susut non teknis disebabkan oleh masalah administrasi dalam pencatatan meter/pengukuran sisitem billing. Disamping adanya pelanggaran penggunaan energi listrik (pencurian energi listrik) oleh pelanggan liar (Daniel Dalam, 2013)**.**

2.9 Tegangan Pada Sistem Tenaga Listrik

1. Tegangan pengenalan pada sistem

Berdasarkan SPLN T6.001: 2013 PT. PLN (Persero) menetapkan standard tegangan untuk sistem tenaga listrik sebagai berikut

a. Tegangan Rendah

Pada tegangan rendah tegangan sistem yang berlaku antara 100 V sampai dengan 1000 v

b. Tegangan Menengah

Tegangan pada sistem tegangan menengah adalah di atas dari 1000 V sampai degang 35. 000 V

c. Tegangan Tinggi

Tegangan tinggi memiliki standard tegangan sistem di atas 35. 000 V sampai dengan 245. 000 V

d. Tegangan Ekstra tinggi

Tegangan Ekstra tinggi memiliki tegangan sistem diatas 245. 000V

e. Tegangan tertinggi dan terendah suatu sistem

1. Tegangan tertinggi suatu sistem

Tegangan ini adalah tegangan tertinggi yang terjadi dalam keadaan kerja normal pada setiap saat dan distiap titik pada sistem itu.

Hal ini tidak mencakup transien tegangan, misalnya karena variasi switsing sistem dan variasi tegangan temporer.

2. Tegangan terrendah suatu sistem

Tegangan ini adalah tegangan yang terjadi pada kondisi opoerasi normal disetiap saat dan disetiap pada sistem itu hal ini tidak mencakup transien tegangan, misalnya karena variasi swistsing sistem dan variasi tegangan temporer.

f. Terminal pasok

Titik hubung antara sistem listrik distribusi pemasok listrik tegangan sistem listrik konsumen

g. Tegangan pasok

Tegangan fase ke fase atau fase ke netral pada terminal pasok

h. Julat tegangan pasok

Julat tegangan ini berada pada terminal pasok.

i. Tegangan pemanfaatan

Tegangan ini berada pada tegangan fase ke fase, fase ke netral pada kotak kontak atau terminal perlengkapan

j. Julat tegangan pemanfaatan

Julat tegangan ini berada pada kotak kontak atau ada pada terminal perlengkapan

k. Tegangan pengenal (perlengkapan)

Tegangan yang ditetapkan umumnya oleh pabrikan, untuk kondisi operasi yang ditentukan dalam suatu komponen, gawai atau perlengkapan. Tegangan tertinggi pada perlengkapan hanya ditunjukkan untuk tegangan sistem nominal yang lebih tinggi dan 1.000 V. Hal itu dapat dimengerti terutama untuk tegangan sistem nominal tertentu. Dalam operasi normal, untuk perlengkapan yang mempunyai kaitan dengan karakteristik peka tegangan tidak dapat dijamin sampai dengan tegangan tertinggi. Seperti susut kapasitor, arus magnetisasi transformator dan sebagainya. Pada kasus tersebut, rekomendasi yang relevan harus menentukan batas untuk dapat menjamin operasi normal perlengkapan. Hal itu dapat dimengerti karena perlengkapan yang digunakan dalam sistem yang mempunyai tegangan nominal tidak melebihi 1.000 V, sebaiknya hanya ditentukan dengan acuan tegangan sistem nominal yang berlaku untuk operasi dan untuk insulasi. Pada tegangan perlengkapan perlu memperhatikan standar perlengkapan

(misalnya lEC 60335-1 dan lEC 60071) istilah “julat tegangan” mempunyai pengertian yang berbeda.

2.10. Standard Tegangan

Dibawah ini menunjukkan tabel nilai tegangan sistem 3 fase-tiga empat-kawat dan sistem fase tunggal tiga-kawat termasuk rangakaian fase-tunggal (perluasan, pelayanan dan sebagainya) yang dihubungkan ke sistem tersebut. Nilai yang lebih rendah dalam kolom adalah tegangan ke netral dan nilai yang lebih tinggi adalah tegangan antar fase. Jika hanhya satu nilai yang ditunjukkan, maka nilai tersebut mengacu pada sistem tiga kawat dan menunjukkan tegangan antar fase (Badan Standardisasi Nasional (BSN), 2013). Seperti terlihat pada Tabel 2.2

Tabel 2.2 Sistem Yang Diterapkan Pada Sistem Distribusi Tegangan Rendah

Sistem fase-tiga empat-kawat	Sistem fase-tunggal tiga-kawat
Tegangan nominal (V)	Tegangan nominal (V)
230 / 400	2 x 230
	Sistem fase-tunggal tiga kawat tidak dikembangkan.

Dengan memperhatikan julat tegangan pasok, pada kondisi pelayanan normal direkomendasikan bahwa tegangan pada terminal pasok perbedaannya tidak boleh lebih besar ± 10% dari tegangan nominal sistem. Untuk jatuh tegangan pemanfaatan, selain variasi tegangan pada terminal pasok, jatuh tegangan mungkin terjadi pada instalasi konsumen. Untuk instalasi tegangan rendah, turun tegangan ini dibatasi sampai dengan 5% (4% IEC) yang berarti turun tegangannya dari 220/380 menjadi 219/389, oleh karena itu julat tegangan pemanfaatan adalah + 10 %, - 15 %, yang artinya julat (batasan)

tegangan pemanfaatannya dari 220/380 menjadi + 222/382 dan – 223/28, seperti terlihat pada Tabel 2.3.

Tabel 2.3 Sistem Fase Tiga Yang Bertegangan Nominal Antara 1 kV Sampai Dengan 35kV dan Perlengkapan Terkait.

Tegangan tertinggi untuk perlenkapan (kV)	Tegangan nominal sistem (kV)	Pemanfaat
7,2	6	Pembangkit
12	11	Pembangkit
24	20	Distribusi & pembangkit
Sistem fase-tiga tiga-kawat kecuali dinyatakan lain. Nilai yang ditunjukkan adalah tegangan antar fase Tegangan tertinggi dan tegangan terendah perbedaannya tidak boleh lebih besar ± 10 % dari tegangan nominal sistem		
1) Nilai ini tidak digunakan untuk sistem distribusi umum. 2) Tidak dikembangkan lagi. 3) Untuk sistem fase tiga empat kawat		

CATATAN 1: Rasio antara dua tegangan nominal yang berdekatan pada satu sistem sebaiknya tidak kurang dari dua.

CATATAN 2: Dalam sistem normal, tegangan tertinggi dan terendah perbedaannya tidak lebih ± 10 % dari tegangan nominal sistem, seperti terlihat pada Tabel 2.4, Tabel 2.5 dan Tabel 2.6.

Tabel 2.4 Sistem Fase Tiga Yang Bertegangan Nominal Diatas 35 kV

Sampai Dengan 230 kV dan Perlengkapan Terkait

Tegangan tertinggi untuk perlengkapan (kV)	Tegangan nominal sistem (kV)
72,5	66
170	150
Nilai tersebut di atas adalah nilai tegangan antar fase	

Tabel 2.5 Sistem Fase Tiga Yang Bertegangan Tertinggi

Untuk Perlengkapan Melebihi 245 kV

Tegangan tertinggi untuk perlengkapan (kV	Tegangan nominal sistem (kV
300 550	275 500
Nilai tersebut di atas adalah nilai tegangan antar fase	

Tabel 2.6 Perlengkapan Yang Mempunyai Tegangan Sampai Dengan 220 V a.s

Atau Sampai Dengan 400 V a.b

A.S		A.B	
Nilai nominal		Nilai nominal	
Lebih disukai (V)	Pemanfaat	Lebih disukai (V)	Pemanfaat
12 24 48 110 220	Telekom,SCADA, Radio, GH & KIT Telekom,SCADA, Radio, GH & KIT Telekom,SCADA, Radio,TP,SCADA Kontrol GI & KIT Kontrol GI & KIT	230/400	Rumah, Kantor, Gardu, Pusat Listrik

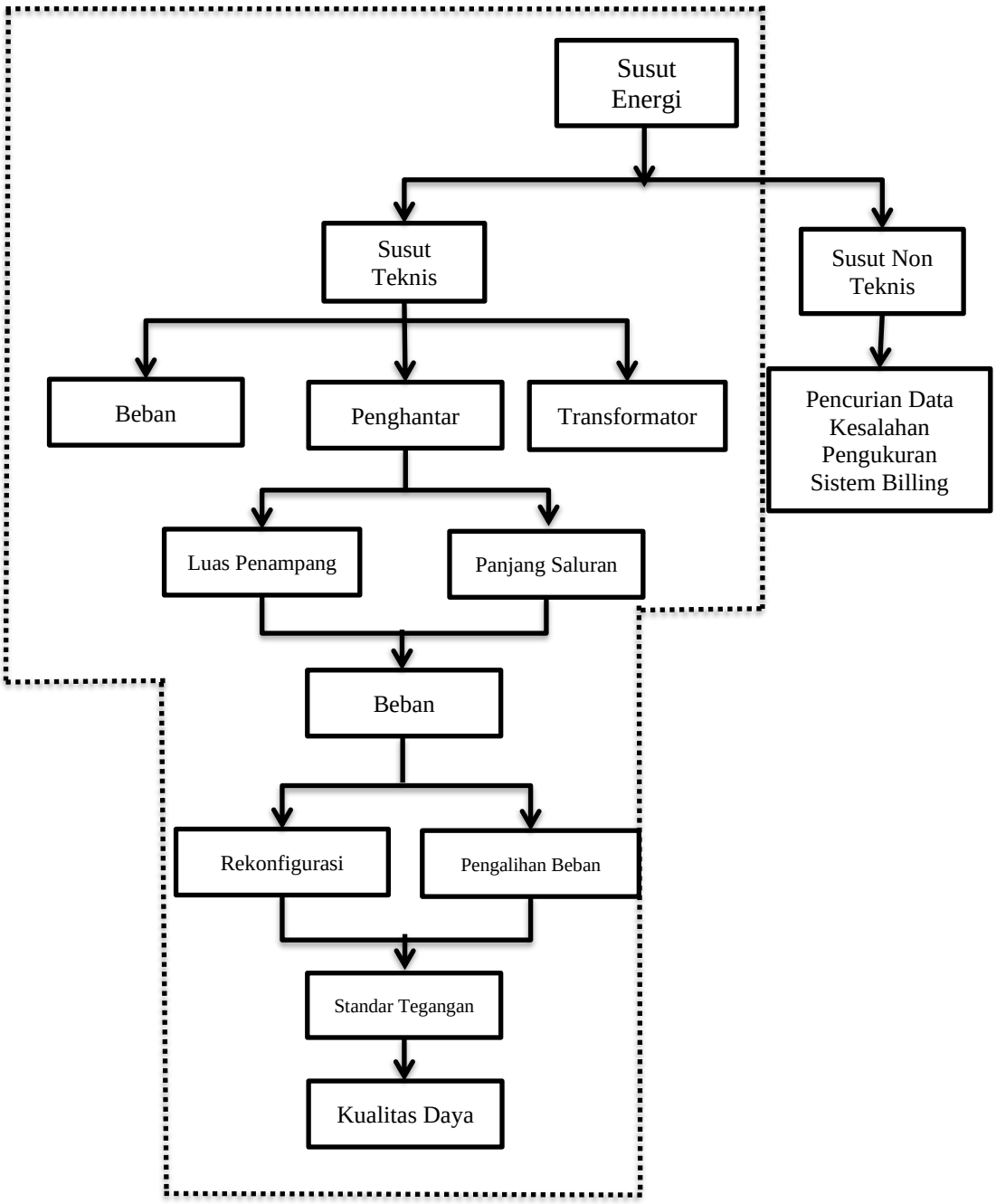
BAB III

METODOLOGI PENELITIAN

3.1 Kerangka Konsep Penelitian

Penelitian ini bertujuan untuk mengevaluasi pengaruh rekonfigurasi jaringan distribusi pada penyulang distribusi MR.03 Gardu Induk (GI) Marisa. Pada Gambar (3.1) di perlihatkan kerangka konsep penelitian yang menjelaskan tentang profil tegangan dan rugi-rugi daya teknis setelah rekonfigurasi jaringan distribusi penyulang MR.03. Drop tegangan dan Rugi-rugi daya teknis merupakan salah satu sifat dari susut energi.

Untuk mengatasi masalah tersebut dilakukan rekonfigurasi, rekonfigurasi adalah salah satu cara menambah atau merubah jaringan agar dapat meminimalisir drop tegangan dan susut energi yang di akibatkan oleh padatnya beban pada jaringan. Selain melakukan rekonfigurasi permasalahan ini dapat di lakukan dengan pengalihan manuver beban, pengalihan manuver beban merupakan cara dengan memindahkan beban dari jaringan yang bermasalah ke jaringan lain atau ke jaringan yang baru ditambahkan. Setelah melakukan ke dua cara tersebut maka akan di lihat standar tegangannya, jika standar tegangannya sudah memenuhi standar kelayakan maka akan menghasilkan kualitas daya yang di tetapkan.



Gambar 3.1 Kerangka Konsep Penelitian

3.2 Lokasi Dan Waktu Penelitian

Penelitian ini berlokasi di Penyulang 20 kV GI Marisa dan lokasi yang akan dilakukan rekonfigurasi jaringan adalah pada penyulang MR.03. Rencananya kedepan bahwa tidak ada lagi beban penyulang yang mengalami drop tegangan.

Waktu penelitian dilaksanakan selama 3 bulan terhitung dari Desember 2020 sampai dengan Maret 2021.

3.3 Tahapan Alur Penelitian

3.3.1 Study Literatur

Study literatur ini dilakukan untuk pembelajaran terhadap referensi, jurnal serta teori-teori dasar yang behubungan objek yang diteliti terhadap penelitian-penelitian sebelumnya.

3.3.2 Pengumpulan Data

Data yang digunakan dalam penelitian adalah data yang diterima dari Unit Layanan Transmisi Gardu Induk ULTG Gorontalo dan Unit Pelaksana Pelayanan Pelanggan (UP3) Gorontalo. Adapun data yang dibutuhkan dalam penelitian adalah sebagai berikut:

1. Diagram satu garis (*one line diagram*) sistem 20 kV Marisa, yakni peta jaringan/jalur layanan sistem.
2. Generator yang tersambung dengan sistem GI Marisa, data yang dibutuhkan adalah : rating tegangan (kV), kapasitas daya terpasang dalam (MW) dan daya mampu dari masing-masing pembangkit dalam satuan MW.
3. Transformator daya di GI Marisa
4. Transformator Distribusi di Wilayaha ULP Marisa
5. penghantar yang digunakan
6. Beban, yakni beban puncak malam sesaat.

3.3.3 Proses Pengolahan Data

Data-data yang didapatkan dari lapangan masih berupa data mentah. Sebelum dilakukan simulasi, data-data tersebut masih melalui tahap perhitungan-perhitungan manual untuk mendapatkan nilai parameter sistem yang akan menjadi input pada simulasi. Selanjutnya dilakukan permodelan sistem dengan menggunakan bantuan software ETAP 12.6. Selanjutnya dilakukan simulasi aliran daya pada sistem kelistrikan 20 kV ULP Marisa menggunakan metode *Newton-Raphson*.

3.3.4 Simulasi Aliran Daya

Adapun data-data yang menjadi input pada simulasi aliran daya adalah sebagai berikut:

1. Nama Busbar
2. Tipe Busbar (bus referensi, bus beban dan bus pembangkit)
3. Rating tegangan busbar
4. Data transformator daya pada GI Marisa
5. Transformator Distribusi di Wilayah ULP Marisa
6. Data penghantar pada saluran distribusi
7. Daya semu (beban yang tersambung pada bus beban satuan MVA)
8. Daya aktif
9. Faktor daya yakni pembangkit 0,85 dan beban 0,95

Simulasi dilakukan untuk mengetahui nilai profil tegangan pada setiap bus, aliran beban dan rugi-rugi daya total pada sistem kelistrikan 20 kV Marisa sebelum dan sesudah adanya rekonfigurasi jaringan. Skenario simulasi rekonfigurasi jaringan adalah dengan mengalihkan beban penyulang MR.03 ke penyulang lain dengan

memperhatikan standar tegangan jaringan yang di izinkan. Setelah dilakukan simulasi tersebut, dilakukan analisis hasil.

3.3.5 Analisa Hasil Simulasi

Analisa hasil simulasi berupa profil tegangan pada setiap bus, rugi rugi daya total sebelum dan sesudah adanya rekonfigurasi jaringan pada penyulang 20 kV GI Marisa. Analisa hasil ini dilakukan untuk mengetahui perbandingan profil tegangan dan rugi rugi daya total. Dilakukan perbandingan ini yaitu untuk mengetahui perubahan yang terjadi pada penyulang 20 kV Marisa berupa nilai tegangan dan rugi-rugi daya. Dalam analisis ini juga dilakukan evaluasi hasil aliran daya guna melihat apabila sudah memenuhi standart yang ditetapkan. Jika sudah memenuhi standart maka akan ditarik kesimpulan.

3.3.6 Skenario Simulasi

Simulasi aliran daya menggunakan bantuan *softwere* ETAP yang terintegrasi dan metode *Newton-Raphson*.

1. Skenario Pertama (sebelum rekonfigurasi)
   a) Daya terpasang berdasarkan daya mampu pembangkit mengikuti daya yang diberikan pada Tabel 3.1.
   b) Beban penyulang yang digunakan adalah data beban puncak malam pada bulan April 2020 yang diberikan pada Tabel 3.3.
2. Skenario kedua (setelah rekonfigurasi)
   a) Daya terpasang berdasarkan daya mampu pembangkit mengikuti daya yang diberikan pada Tabel 3.1.

b) Beban penyulang yang digunakan adalah data beban puncak malam pada bulan April 2020 yang diberikan pada Tabel 3.3.

c) Melakukan pemindahan beban pada penyulang yang mengalami drop tegangan (rekonfigurasi jaringan)

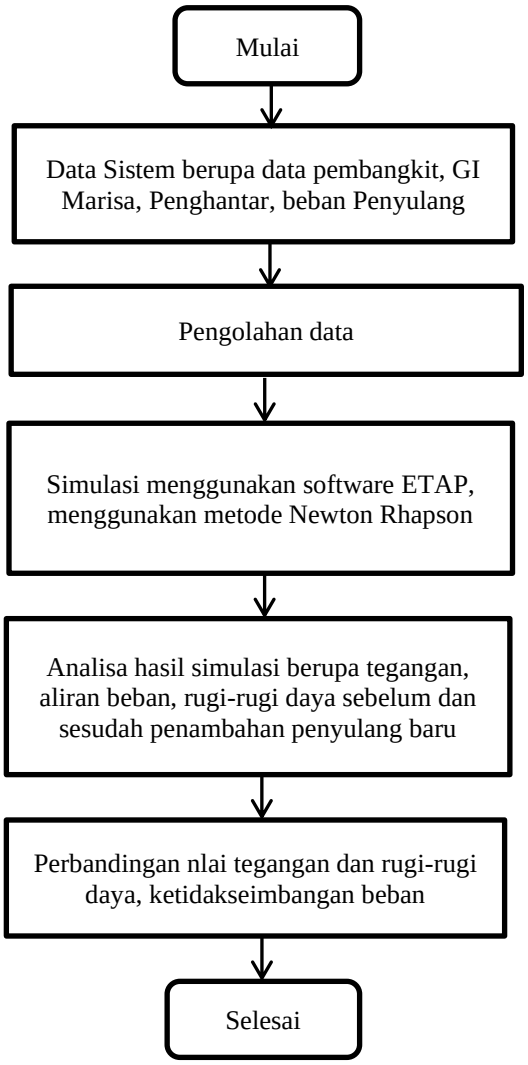
Kedua skenario tersebut disimulasikan dalam 1 (satu) pola operasi sistem, yakni pada saat sistem Gorontalo yaitu penyulang 20 kV Marisa pada kondisi beban puncak malam. Asumsi dan batasan yang digunakan dalam simulasi sebagai berikut:

a) Ketelitian yang digunakan dalam simulasi aliran daya adalah 0.0001, dengan metode analisis menggunakan metode *Newton-Rhapson*
b) Studi aliran daya dilakukan pada kondisi sistem tanpa gangguan
c) Memindahkan beban penyulang MR.03 pada penyulang lainnya.

3.3.7 Ketidakseimbangan Beban

Ketidakseimbangan beban dianalis untuk mengetahui tingkat pemerataan beban yang ada di ujung saluran yang berada area pelayanan beban GH marisa. Ketidakseimbangan beban dianalisis berdasarkan data pengukuran gardu distribusi pada ujung saluran yang dilayani dari GH Marisa

3.4 Flow Chart Penelitian



Gambar 3.2 Diagram Alur Penelitian

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PT. PLN (PERSERO) UP3 Gorontalo

BAB IV

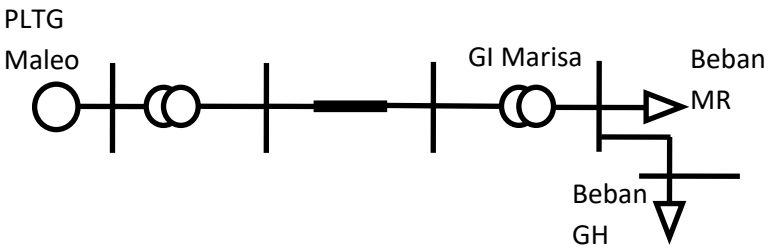
HASIL DAN PEMBAHASAN

4.1 Sistem Kelistrikan Gorontalo

Sistem Kelistrikan Gorontalo terdapat 7 (Tujuh) pusat beban Gardu Induk dan ada 4 (empat) pusat listrik yang skala besar yang saling terinterkoneksi melalui Saluran Udara Tegangan Tinggi (SUTT) 150 kV. Disamping itu ada 3 (tiga) Pembangkit yang terhubung ke Gardu Hubung melalui saluran distribusi 20 kV dan ada 1 (satu) pembangkit yang terhubung langsung *(ekspress)* ke *out going* 20 kV Gardu Induk. Sistem Kelistrikan di PT. PLN (Persero) UP3 Gorontalo ULP Marisa merupakan satu kesatuan interkoneksi dengan system ULTG Gorontalo Melalui Gardu Induk (GI) Marisa. ULP Marisa memiliki 4 Gardu Hubung (GH) dan 6 penyulang out going 20 kV dari GI Marisa. Pada Tahun 2020-2021 PT. PLN (Persero) UP3 Gorontalo ULP Marisa telah melakukan rekonfigurasi jaringan distribusi 20 kV. Rekonfigurasi jaringan tersebut dilakukan dengan memindahkan line jaringan dari MR 3 ke line penyulang MR 4 melalui jaringan SUTM 20 kV, dalam artian melakukan pecah beban. Adanya rekonfigurasi jaringan distribusi tersebut sistem aliran daya berubah, seperti tegangan, pola aliran daya dan rugi-rugi daya, sehingga proses operasi sistem yang ada pada ULP Marisa juga berubah.

Rekonfigurasi jaringan ini diharapkan dapat membantu kebutuhan energy dan juga dapat memperbaiki profil tegangan dengan memperhitungkan rugi-rugi daya. Sehingga perlu analisis aliran daya pada kondisi sebelum dan sesudah rekonfigurasi. Dalam analisis aliran daya perlu data system kelistrikan. Adapun data tersebut

berupa data Pembangkit listrik, data transformator Gardu induk, beban pada masing-masing penyulang dan data kawat Penghatar. Setelah mendapatkan data sistem selanjutnya menganalisis data system tersebut. Gambar lur sistem ULP Marisa dapat dilihat pada Gambar 4.1

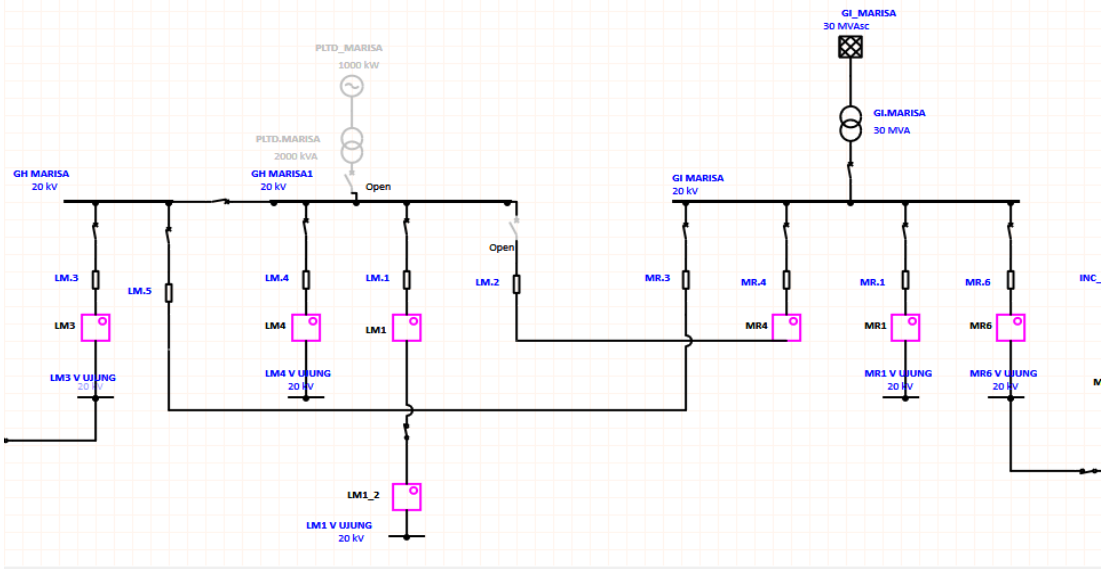


Gambar (4.1) Alur Sistem Kelistrikan ULP Marisa

4.2 Simulasi Sebelum dan Sesudah Rekonfigurasi (Pecah Beban)

a) Skema diagram system GI. Marisa sebelum pecah beban

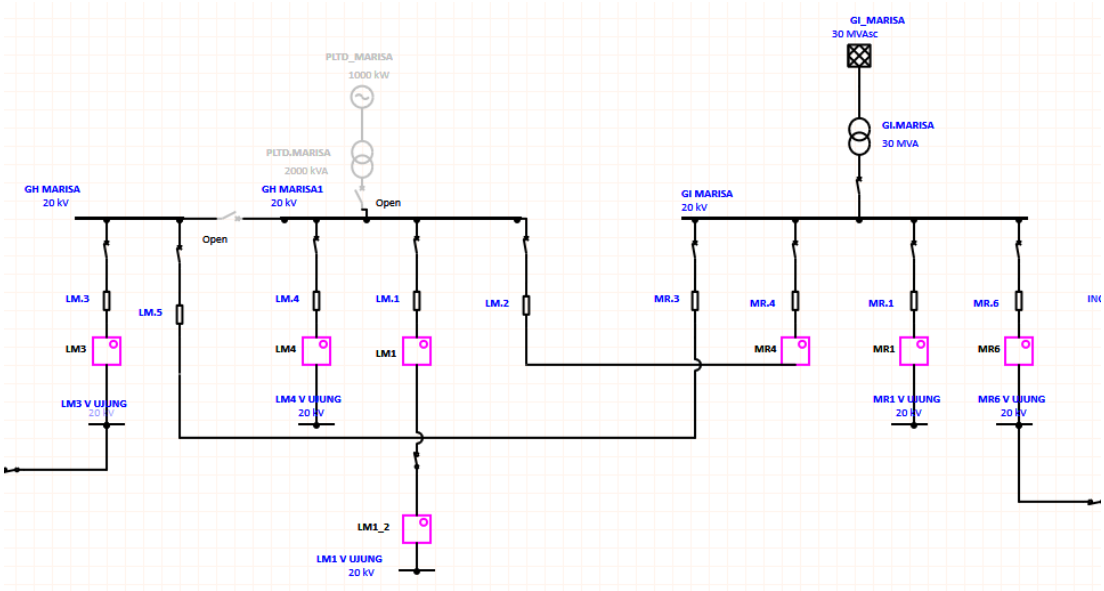
Gambar simulasi diagram system kelistrikan ULP Marisa sebelum dilakukan rekonfigurasi dapat dilihat pada Gambar 4.2.



Gambar (4.2) Simulasi Sebelum rekonfigurasi (pecah beban)

b) Skema diagram system GI. Marisa setelah penambahan penyulang baru

Gambar simulasi diagram system kelistrikan ULP Marisa sesudah dilakukan rekonfigurasi dapat dilihat pada Gambar 4.3.



Gambar (4.3) Simulasi Sesudah rekonfigurasi (pecah beban)

4.3 Analisis Data Sistem Kelistrikan ULP Marisa

Perolehan data dari lapangan untuk system kelistrikan berupa data mentah, kemudian data tersebut di analisis. Untuk simulasi analisis aliran daya berupa tegangan jatuh dan rugi-rugi daya menggunakan bantuan software ETAP 19.

4.3.1 Analisis Data Pembangkit Listrik

Analisis daya pembangkit, dasar yang digunakan adalah data actual dengan membagi cos phi dengan daya aktif diperoleh daya semu. Cos phi adalah 0.8 dengan daya aktif (Pmax) yang dijadikan sebagai acuan untuk menentukan nilai parameter bus refrensi (slack bus).

$$P = S \,.\cos phi$$

$$P = \frac{30}{0.8} = 24\ MW$$

Untuk daya aktif pembangkit yang ada pada system kelistrikan Gorontalo dapat dilihat pada Tabel 4. 1:

Tabel 4. 1 Pembangkit Sistem Gorontalo

No	Pembangkit	Daya Terpasang (MW)	Daya Kirim (MW)	*Power Faktor*	S (MVA)	P *Max*	Q *Max*	Tegangan (kV)
				Max		MW	MW	
1	PLTG Maleo	100	50	0,8	125	100	75	150
2	PLTU Anggrek	50	40	0,8	62,5	50	37,5	150
3	PLTU Molotabu	0	0	0	0	0	0	150
4	PLTU Tanjung Karang	100	50	0,8	125	100	75	150
5	PLTM Mongango	1,2	0,9	0,8	1,5	1,2	0,9	20
6	PLTM Taludaa	5,3	2,7	0,8	6,625	5,3	3,975	20
7	PLTS Sumalata	2	1,4	0,8	2,5	2	1,5	20
8	PLTS Isimu	10	80	0,8	12,5	10	7,5	20
Total		**268,5**	**225**	**0,8**	**335,625**	**268,5**	**201,375**	

Pada Tabel 4.1 terlihat bahwa daya pembangkit pada PLTG Maleo adalah 100 MW. GI Marisa merupakan GI yang dekat dengan pusat listrik dari PLTG Maleo. Pada GI Marisa terdapat satu unit trafonsformator daya sebesar 30 MVA. Pada simulasi, untuk menentukan bus referensi digunakan daya pada transformator daya tersebut yang terdapat pada GI Marisa dan analisisnya berada pada penyulang MR 3 dan MR 4 di jaringan 20 kV out going dan Gardu Hubung (GH Marisa).

4.3.2 Analisa Data Saluran

Data saluran penghantar yang diambil adalah data saluran pada ULP Marisa yang merupakan data segmen/ terpusat pada gardu hubung dan gardu-gardu distribusi. Data saluran yang akan digunakan sebelum rekonfigurasi dapat dilihat pada Tabel 4.2. sedangkan data saluran sesudah rekonfigurasi dapat dilihat pada Tabel 4.3.

Tabel 4.2 Data saluran distribusi sebelum rekonfigurasi ULP Marisa

SECTION PENYULANG 20 KV SUB-SISTEM ULP MARISA				
NO	**PENYULANG**	**SECTION**	**GI / PLTD**	**KMS**
1	MR.01 / ULIN	GI Paguat - Jumper RM Kapuas	GI PAGUAT	36,4
2	MR.02 / REAKTOR	Reaktor GI Paguat	GI PAGUAT	0
3	MR.03 / JATI	GI Paguat - GH Marisa	GI PAGUAT	13,80
	LM.01	GH Marisa - LBS Duhiadaa - Ujung	GH Marisa	31,7
	LM.03	GH Marisa - LBS Iloheluma - (LBS Manunggal - Pancakarsa) - Recloser Patuhu - LBS Wonggarasi - GH Lemito - LBS Lomuli - LBS Trikora - Molosipat	GH Marisa	235,6
	LM.04	GH Marisa – Botubilatohe	GH Marisa	11,5
4	MR.04 / DAMAR	GI Paguat - GH Marisa	GI PAGUAT	16,1
5	MR.06 / PINUS	GI Paguat - Recloser Salilama - LBS Lamu - GH Tilamuta	GI PAGUAT	68,3
6	TA.04	GI Tilamuta - LBS Bongonol - (LBS Dulupi) - LBS Lahumbo	GH Tilamuta	70,3
	LMT.01	GH Tilamuta - Dalam Kota Tilamuta	GH Tilamuta	26,8

Tabel 4.3 Data saluran distribusi sesudah rekonfigurasi ULP Marisa

SECTION PENYULANG 20 KV SUB-SISTEM ULP MARISA				
NO	**PENYULANG**	**SECTION**	**GI / PLTD**	**KMS**
1	MR.01 / ULIN	GI Paguat - Jumper RM Kapuas	GI PAGUAT	36,4
2	MR.02 / REAKTOR	Reaktor GI Paguat	GI PAGUAT	0
3	MR.03 / JATI	GI Paguat - GH Marisa	GI PAGUAT	13,80
	LM.03	GH Marisa - LBS Iloheluma - (LBS Manunggal - Pancakarsa) - Recloser Patuhu - LBS Wonggarasi - GH Lemito - LBS Lomuli - LBS Trikora - Molosipat	GH Marisa	235,6
4	MR.04 / DAMAR	GI Paguat - GH Marisa	GI PAGUAT	16,1
	LM.01	GH Marisa - LBS Duhiadaa - Ujung	GH Marisa	31,7
	LM.04	GH Marisa – Botubilatohe	GH Marisa	11,5
5	MR.06 / PINUS	GI Paguat - Recloser Salilama - LBS Lamu - GH Tilamuta	GI PAGUAT	68,3
6	TA.04	GI Tilamuta - LBS Bongonol - (LBS Dulupi) - LBS Lahumbo	GH Tilamuta	70,3
	LMT.01	GH Tilamuta - Dalam Kota Tilamuta	GH Tilamuta	26,8

4.3.3 Analisa Data Beban

Data beban yang diperoleh masih dalam bentuk arus beban. Dalam simulasi dibutuhkan input data dalam bentuk daya aktif. Sehigga perlu perhitungan didalam mengkonversi beban dari penyulang section. Data beban yang diambil adalah data beban puncak waktu malam hari pada ULP Marisa. Data beban sebelum rekonfigurasi dapat dilihat pada Tabel 4.4. dan data beban sesudah rekonfigurasi dapat dilihat pada Tabel 4.5

Tabel 4.4 data beban sebelum rekonfigurasi ULP Marisa

BEBAN PUNCAK MALAM SUB-SISTEM ULP MARISA			
NO	**PENYULANG**	**SECTION**	**WBP MALAM**
1	MR.01 / ULIN	GI Paguat - Jumper RM Kapuas	33
2	MR.02 / REAKTOR	Reaktor GI Paguat	0
3	MR.03 / JATI	GI Paguat - GH Marisa	0
	LM.01	GH Marisa - LBS Duhiadaa - Ujung	55
	LM.03	GH Marisa - LBS Iloheluma - (LBS Manunggal - Pancakarsa) - Recloser Patuhu - LBS Wonggarasi - GH Lemito - LBS Lomuli - LBS Trikora - Molosipat	136
	LM.04	GH Marisa - Botubilatohe	60
4	MR.04 / DAMAR	GI Paguat - GH Marisa	18
5	MR.06 / PINUS	GI Paguat - Recloser Salilama - LBS Lamu - GH Tilamuta	41
6	TA.04	GI Tilamuta - LBS Bongonol - (LBS Dulupi) - LBS Lahumbo	30
	LMT.01	GH Tilamuta - Dalam Kota Tilamuta	64

Tabel 4.5 data beban sesudah rekonfigurasi ULP Marisa

BEBAN PUNCAK MALAM SUB-SISTEM ULP MARISA				
NO	**PENYULANG**	**SECTION**	**GI / PLTD**	**WBP MALAM**
1	MR.01 / ULIN	GI Paguat - Jumper RM Kapuas	GI PAGUAT	33
2	MR.02 / REAKTOR	Reaktor GI Paguat	GI PAGUAT	0
3	MR.03 / JATI	GI Paguat - GH Marisa	GI PAGUAT	0
	LM.03	GH Marisa - LBS Iloheluma - (LBS Manunggal - Pancakarsa) - Recloser Patuhu - LBS Wonggarasi - GH Lemito - LBS Lomuli - LBS Trikora - Molosipat	GH Marisa	136
4	MR.04 / DAMAR	GI Paguat - GH Marisa	GI PAGUAT	18
	LM.01	GH Marisa - LBS Duhiadaa - Ujung	GH Marisa	55
	LM.04	GH Marisa - Botubilatohe	GH Marisa	60
5	MR.06 / PINUS	GI Paguat - Recloser Salilama - LBS Lamu - GH Tilamuta	GI PAGUAT	41
6	TA.04	GI Tilamuta - LBS Bongonol - (LBS Dulupi) - LBS Lahumbo	GH Tilamuta	30
	LMT.01	GH Tilamuta - Dalam Kota Tilamuta	GH Tilamuta	64

4.4 Simulasi dan Pembahasan

4.4.1 Hasil simulasi untuk tegangan sebelum rekonfigurasi

Simulasi aliran daya menggunakan metode Newton-Raphson, pertama-tama system dimodelkan sesuai dengan *single line* system kelistrikan ULP Marisa kondisi sebelum rekonfigurasi. Setelah system dimodelkan, selanjutnya dilakukan penginputan data dari masing-masing parameter sesuai dengan hasil pengolahan data dan referensi system. Penginputan data hasil perhitungan parameter slack bus, transformator, penghantar dan beban kedalam software ETAP.

Setelah penginputan data, selanjutnya dilakukan proses simulasi. Hasil dari simulasi tegangan pada kondisi sebelum rekonfigurasi merupakan hasil tegangan pada bus Gardu Induk Marisa sisi outgoing 20 kV dan bus line GH Marisa serta ujung saluran. Setelah didapatkan hasilnya maka dilakukan analisis tegangan yang

terdapat pada setiap bus beban. Analisi bus beban tersebut terdapat pada bus Gardu Induk (GI) Marisa outgoing 20 kV dan bus line GH Marisa 20 kV serta ujung saluran distribusi. Sehingga hasil simulasi tegangan pada kondisi sebelum rekonfigurasi/pecah beban dapat dilihat pada Tabel 4.6.

Tabel 4.6 Hasil Simulasi Tegangan Sebelum Rekonfigurasi/pecah beban

Bus	V [% Mag]	V [Ang]
GI Marisa	103.09	-3.8
MR.3	100.93	-4.0
MR.4	102.98	-3.8
GH Marisa1	91.87	-4.0
GH Marisa	91.87	-4.0
LM1 Ujung	90.94	-4.2
LM3 Ujung	86.07	-5.6
LM4 Ujung	91.65	-4.1

Pada Tabel 4.6 terlihat bahwa hasil simulasi pada tegangan outgoing 20 kV GI Marisa sebelum rekonfigurasi yang tertinggi ada pada bus 20 kV GI Marisa sebesar 103,087 % dan tegangan terendah terdapat pada bus ujung penyulang dari line Marisa 3 (LM3 ujung) yaitu 86.074 %. Hal ini menandakan bahwa tegangan yang ada pada bus out going 20 kV GI Marisa masih dalam batas standar SPLN yaitu 110 % (+ 10 %) dan 90 % (– 10%). Sedangkan pada bus ujung penyulang 20 kV GH Marisa (LM3 ujung) berada dalam batas standar SPLN yaitu 110 % (+ 10 %) dan 90 (– 10%). Sehingga tegangan ujung pada GH Marisa LM3 ujung dikatakan mengalami drop tegangan.

4.4.2 Hasil Simulasi Aliran Beban Sebelum Rekonfigurasi

Hasil simulasi aliran beban kondisi sebelum rekonfigurasi dengan menggunakan metode Newton-Rhapson dapat dilihat pada Tabel 4.7.

Tabel 4.7 Hasil Simulasi Aliran Beban sebelum rekonfigurasi

From	To	MW	Mvar	Amp	%PF
GI Marisa	MR 3/MR1 GMP94	1.845	1.109	60.3	85.7
GI Marisa	MR 4 GM	3.809	2.382	125.8	84.8
GI Marisa	GH Marisa1	1.214	0.674	43.6	87.4
GH Marisa 1	LM1	0.790	0.439	28.4	87.4
LM1/LM1 44	LM1 Ujung/LM1 46	0.003	0.001	0.1	98.6
GH Marisa 1	LM4	0.424	0.250	15.5	86.1
LM4/LM1 161	LM4 Ujung/LM1 167	0.047	0.028	1.7	84.4
GH Marisa	LM3	3.959	2.526	147.6	84.3
LM3 113	LM3 Ujung	2.056	1.262	80.8	85.2

Pada Tabel 4.7 terlihat bahwa hasil simulasi aliran beban pada kondisi sebelum rekonfigurasi terbesar terdapat pada saluran GH Marisa menuju LM3 yaitu dengan daya aktif sebesar 3,959 MW dan daya reaktif 2,526 MVar. Sedangkan aliran beban terendah terdapat pada saluran LM1/LM1 44 menuju bus saluran LM1 Ujung/LM1 46 yaitu daya aktif sebesar 0,003 MW dan daya reaktif yaitu 0,001 MVar.

4.4.3 Rugi-rugi Daya Sebelum Rekonfigurasi

Hasil simulasi rugi-rugi daya secara keseluruhan untuk system kelistrikan ULP Marisa pada saluran penghantar dengan kondisi sebelum rekonfigurasi dapat dilihat pada Tabel 4.8.

Tabel 4.8 Hasil Simulasi Rugi-rugi Daya sebelum rekonfigurasi

Item	MW	Mvar	MVA	%PF
Total Demand	15.366	11.078	18.946	81.12 lagging
Total static load	2.268	1.405	2.668	85.00 lagging
Total motor load	11.284	6.993	13.264	85.00 lagging

Apparent losses	1.814	2.679	-	-
Percentage Losses	11,8%	24,2%	-	-

Dari Tabel 4.8 terlihat bahwa hasil simulasi rugi-rugi daya secara keseluruhan pada saluran penghantar dengan kondisi sebelum rekonfigurasi yaitu untuk daya aktif sebesar 1,814 MW dan untuk daya reaktif sebesar 2,679 MVar. Sedangkan pesentase rugi rugi daya total dengan perbandingan rugi-rugi daya total dan pembangkitan total adalah untuk daya aktif sebesar 11,8 % dan daya reaktif sebesar 24,2%.

4.4.4 Simulasi Tegangan Setelah Rekonfigurasi

Dalam simulasi aliran daya setelah rekonfigurasi menggunakan metode Newton-Raphson, system dimodelkan sesuai diagram satu garis system dengan merekonfigurasi jaringan distribusi. Rekonfigurasi jaringan dilakukan dengan memecah beban penyulang pada bus *out going* 20 kV Gardu Induk Marisa menuju GH Marisa. Pecah beban ini dilkakukan dengan cara memindahkan beban penyulang yang ada pada penyulang MR 3 ke beban penyulang MR 4 GI Marisa out going 20 kV melalui line penyulang GH Marisa. Sebelumnya penyulang dari MR 3 menuju GH Marisa dan GH Marisa1 tersambung sedangkan beban penyulang MR 4 tidak tersambung dengan GH Marisa1 dan GH Marisa. Setelah dilakukan rekonfigurasi jaringan dengan memecah beban yang ada di GH Marisa 1 melalui GH Marisa dari penyulang MR 3 sebelumnya, dipindahkan ke penyulang MR 4. Sehingga beban yang ada pada GH Marisa 1 yang tadinya di beban penyulang MR 3 sekarang sudah dipindahkan ke beban penyulang MR 4.

Setelah penginputan data, selanjutnya dilakukan proses simulasi. Hasil dari simulasi tegangan pada kondisi sesudah rekonfigurasi merupakan hasil tegangan pada bus Gardu Induk Marisa sisi outgoing 20 kV dan bus line GH Marisa serta

ujung saluran. Setelah didapatkan hasilnya maka dilakukan analisis tegangan yang terdapat pada setiap bus beban. Analisi bus beban tersebut terdapat pada bus Gardu Induk (GI) Marisa outgoing 20 kV dan bus line GH Marisa 20 kV serta ujung saluran distribusi. Sehingga hasil simulasi tegangan pada kondisi sesudah rekonfigurasi/pecah beban dapat dilihat pada Tabel 4.9.

Tabel 4.9 Hasil Simulasi Tegangan Sesudah Rekonfigurasi

Bus	V [% Mag]	V [Ang]
GI Marisa	103.16	-3.7
MR.3	98.69	-4.3
MR.4	103.03	-3.7
GH Marisa1	98.66	-4.0
GH Marisa	94.73	-3.9
LM1 Ujung	97.78	-4.4
LM3 Ujung	89.11	-5.4
LM4 Ujung	98.45	-4.3

Pada Tabel 4.9 terlihat bahwa hasil simulasi pada tegangan outgoing 20 kV GI Marisa sesudah rekonfigurasi yang tertinggi ada pada bus 20 kV GI Marisa sebesar 103,16 % dan tegangan terendah terdapat pada bus ujung penyulang dari line Marisa 3 (LM3 ujung) yaitu 89.11 %. Hal ini menandakan bahwa tegangan yang ada pada bus out going 20 kV GI Marisa masih dalam batas standar SPLN yaitu 110 % (+ 10 %) dan 90 % (– 10%). Sedangkan pada bus ujung penyulang 20 kV GH Marisa (LM3 ujung) berada dalam batas standar SPLN yaitu 110 % (+ 10 %) dan 90 (– 10%). Sehingga tegangan ujung pada GH Marisa LM3 ujung dikatakan mengalami drop tegangan.

4.4.5 Hasil Simulasi Aliran Beban Setelah Rekonfigurasi

Hasil simulasi aliran beban sesudah rekonfigurasi dengan menggunakan metode Newton-Rhapson dapat dilihat pada Tabel 4.10.

Tabel 4.10 Hasil Simulasi Aliran Beban Sesudah Rekonfigurasi

From	To	MW	Mvar	Amp	%PF
GI Marisa	MR 3/MR1 GMP94	1.845	1.109	60.3	85.7
GI Marisa	MR 4 GM	5.117	3.120	167.7	85.4
GI Marisa	GH Marisa1	0	0	0	0
MR 3	GH Marisa1	1.243	0.675	41.4	87.9
GH Marisa 1	LM1	0.809	0.440	26.9	87.9
LM1/LM1 44	LM1 Ujung/LM1 46	0.003	0.000	0.1	99.4
GH Marisa 1	LM4	0.424	0.250	15.5	86.1
LM4/LM1 161	LM4 Ujung/LM1 167	0.048	0.028	1.6	86.3
GH Marisa	LM3	3.982	2.515	143.5	84.5
LM3 113	LM3 Ujung	2.072	1.260	78.4	85.4

Dari Tabel 4.10 terlihat bahwa hasil simulasi aliran beban pada kondisi sesudah rekonfigurasi terbesar terdapat pada saluran GH Marisa menuju MR 4 GM yaitu dengan daya aktif sebesar 5,117 MW dan daya reaktif 3,120 MVar. Sedangkan aliran beban terendah terdapat pada saluran LM1/LM1 44 menuju bus saluran LM1 Ujung/LM1 46 yaitu daya aktif sebesar 0,003 MW dan daya reaktif yaitu 0,000 MVar.

4.4.6 Rugi-rugi Daya Setelah Rekonfigurasi

Hasil simulasi rugi-rugi daya pada saluran penghantar sesudah rekonfigurasi menggunakan metode newton rhapson dapat dilihat pada Tabel 4.11.

Tabel 4.11 Hasil Simulasi Rugi-rugi Daya sesudah Rekonfiguraasi

Item	MW	Mvar	MVA	%PF
Total Demand	15.214	10.914	18.728	81.26 lagging

Total static load	2.333	1.446	2.744	85.00 lagging
Total motor load	11.284	6.993	13.276	85.00 lagging
Apparent losses	1.598	2.475	-	-
Percentage Losses	10,5%	22,7%	-	-

Dari Tabel 4.11 terlihat bahwa hasil simulasi rugi-rugi daya secara keseluruhan pada saluran penghantar dengan kondisi sebelum rekonfigurasi yaitu untuk daya aktif sebesar 1,598 MW dan untuk daya reaktif sebesar 2,475 MVar. Sedangkan pesentase rugi rugi daya total dengan perbandingan rugi-rugi daya total dan pembangkitan total adalah untuk daya aktif sebesar 10,5 % dan daya reaktif sebesar 22,7%.

4.4.7 Perbandingan Simulasi Aliran Daya Sebelum dan Sesudah Rekonfigurasi

Perbandingan simulasi aliran daya dengan metode Newton Raphson pada kondisi sebelum dan sesudah rekonfigurasi (pecah beban), untuk tegangan disetiap bus dapat dilihat pada Tabel 4.12, untuk aliran beban dapat dilihat pada Tabel 4.13, untuk rugi-rugi daya pada saluran penghantar dapat dilihat pada Tabel 4.14.

Tabel 4.12 Perbadingan Hasil Simulasi Tegangan sebelum dan sesudah rekonfigurasi

Bus	**Sebelum**		**Sebelum**	
	V [% Mag]	**V [Ang]**	**V [% Mag]**	**V [Ang]**
GI Marisa	103.09	-3.8	103.16	-3.7
MR.3	100.93	-4.0	98.69	-4.3
MR.4	102.99	-3.8	103.03	-3.7
GH Marisa1	91.87	-4.0	98.66	-4.0
GH Marisa	91.87	-4.0	94.73	-3.9
LM1 Ujung	90.94	-4.2	97.78	-4.4
LM3 Ujung	86.07	-5.6	89.11	-5.4
LM4 Ujung	91.65	-4.1	98.45	-4.3

Pada Tabel 4.12 terlihat bahwa perbandingan hasil simulasi tegangan pada kondisi sebelum dan sesudah rekonfigurasi menggunakan metode Newton Rhapson,

yakni dalam kondisi sebelum rekonfigurasi tegangan yang berada pada bus beban GI Marisa out going 20 kV adalah sebesar 103,09%, sesudah rekonfigurasi maka tegangan yang ada pada bus beban GI Marisa out going 20 kV naik menjadi 103,16%. Persentase kenaikan tegangan rata-rata yang dianalisis adalah sebesar 3%. Akan tetapi terlihat tegangan pada bus MR 3 mengalami penurunan 2,2% setelah dilakukan rekonfigurasi yaitu dari kondisi sebelum 100,93% turun menjadi 98,69% sesudah rekonfigurasi. Persentase penurunan tegangan dianggap tidak terlalu signifikan. Kenaikan tegangan rata-rata terlihat pada GI Marisa out going 20 kV, GH Marisa, GH Marisa1 serta bus ujung saluran. Rata-rata kenaikan tegangan bus ini disebabkan karena beban di penyulang MR 3 sebelumnya terlalu besar dan memiliki saluran penghantar yang panjang, sehingga dilakukan pecah beban dengan memindahkan beban ke penyulang MR 4. Penyulang MR 4 dipilih dikarenakan beban yang dilayani pada GH Marisa dan GH Marisa1 begitu besar dan juga memiliki saluran yang panjang. Sehingga tegangan pada bus ujung saluran mengalami drop tegangan.

Dengan adanya rekonfigurasi jaringan sistem distribusi untuk memecah beban pada penyulang GI Marisa 20 kV untup supplay daya pada GH Marisa dan GH Marisa1 dapat memberikan pengaruh terhadap profil tegangan. Pengaruhnya adalah berupa kenaikan tegangan baik pada setiap bus masing-masing penyulang di GI Marisa 20 kV maupun pada GH Marisa dan ujung bus saluran. Sehingga membuat tegangan pada setiap bus sistem kelistrikan di ULP Marisa menjadi lebih baik. Keseluruhan rata-rata tegangan pada setiap bus berdasarkan hasil simulasi terlihat baik dan masih dalam batas-batas yang diizinkan menurut standar SPLN

yaitu 110% (+ 10%) dan 90% (– 10%). Sedangkan Perbandingan hasil simulasi aliran beban sebelum dan sesudah rekonfigurasi dengan metode Newton Raphson dapat dilihat pada Tabel 4.13.

Tabel 4.13 Perbadingan Hasil Simulasi Aliran Beban sebelum dan sesudah rekonfigurasi

From	To	Sebelum		Sesudah	
		MW	Mvar	MW	Mvar
GI Marisa	MR 3/MR1 GMP94	1.845	1.109	1.845	1.109
GI Marisa	MR 4 GM	3.809	2.382	5.117	3.120
GI Marisa	GH Marisa1	1.214	0.674	0	0
MR 3	GH Marisa1	0	0	1.243	0.675
GH Marisa 1	LM1	0.790	0.439	0.809	0.440
LM1/LM1 44	LM1 Ujung/LM1 46	0.003	0.001	0.003	0.000
GH Marisa 1	LM4	0.424	0.250	0.424	0.250
LM4/LM1 161	LM4 Ujung/LM1 167	0.047	0.028	0.048	0.028
GH Marisa	LM3	3.959	2.526	3.982	2.515
LM3 113	LM3 Ujung	2.056	1.262	2.072	1.260

Dari Tabel 4.13 terlihat bahwa hasil perbandingan simulasi aliran beban pada kondisi sebelum dan sesudah rekonfigurasi menggunakan metode Newton Rhapson yakni aliran beban pada kondisi sebelum rekonfigurasi terbesar adalah dari bus GH Marisa menuju bus LM3 untuk daya aktif adalah sebesar 3,959 MW dan untuk daya reaktif adalah 2,526 MVar. Setelah rekonfigurasi maka aliran beban dari bus GH Marisa menuju bus LM3 untuk daya aktif adalah sebesar 3,982 MW dan untuk daya reaktif adalah 2,515 MVar. Terlihat aliran beban pada setiap saluran penghantar rata-rata mengalami kenaikan untuk daya aktifnya, namun ada beberapa aliran beban

yang mengalami penurunan untuk daya reaktifnya sesudah dilakukan rekonfigurasi akan tetapi tidak signifikan.

Rata-rata kenaikan aliran beban daya aktif ini disebabkan karena aliran beban sebelumnya pada GH Marisa dan GH marisa1 yang disuplay dari penyulang MR 3. Kemudian dilakukan pecah beban antara kedua GH tersebut, dengan memindahkan beban yang ada pada GH Marisa1 ke penyulang MR 4 dan GH Marisa tetap pada penyulang MR 3. Setelah dilakukannya rekonfigurasi jaringan (pecah beban) yang ada pada GH Marisa supplay daya dari penyulang MR 3 dan GH Marisa1 disupplay daya dari penyulang MR 4, maka terlihat adanya perubahan aliran beban daya aktif terhadap GI Marisa menuju GH Marisa dan GH Marisa1 serta aliran beban sampai pada ujung saluran.

Perbandingan hasil simulasi rugi-rugi daya secara keseluruhan pada kondisi sebelum dan sesudah rekonfigurasi dapat dilhat pada Tabel 4.14.

Tabel 4.14 Perbadingan Hasil Simulasi Rugi-rugi daya sebelum dan sesudah rekonfigurasi

Item	**Sebelum**		**Sesudah**	
	MW	**Mvar**	**MW**	**Mvar**
Total Demand	15.366	11.078	15.214	10.914
Total static load	2.268	1.405	2.333	1.446
Total motor load	11.284	6.993	11.284	6.993
Apparent losses	1.814	2.679	1.598	2.475
% Losses	11,8%	24,2%	10,5%	22,7%

Dari Tabel 4.14 terlihat bahwa hasil perbandingan rugi-rugi daya secara keseluruhan pada kondisi sebelum dan sesudah rekonfigurasi adalah rugi-rugi daya pada kondisi sebelum untuk daya aktif adalah sebesar 1,814 MW dan untuk daya reaktif adalah 2,679 MVar. Sesudah rekonfigurasi untuk daya aktif adalah sebesar

1,598 MW dan untuk daya reaktif adalah 2,475 MVar. Terlihat terjadi penurunan rugi-rugi daya secara keseluruhan untuk daya aktif sebesar 216 kW dan daya reaktif adalah sebesar 204 kVar. Sedangkan perbandingan persentase rugi-rugi daya secara keseluruhan pada kondisi sebelum dan sesudah rekonfigurasi untuk daya aktif adalah sebesar 1,3 % dan daya reaktif 1,5 %.

Penurunan rugi-rugi daya secara keseluruhan pada kondisi sebelum dan sesudah rekonfigurasi disebabkan karena beban yang dilayani oleh GH Marisa dan GH Marisa1 dari supplay penyulang MR 3 dipecah atau di pindahkan. Beban yang dilayani oleh GH Marisa1 dipecah atau dipindahkan ke penyulang MR 4, dan GH Marisa tetap mendapat supplay dari penyulang MR 3.

Dengan adanya rekonfigurasi jaringan system di ULP Marisa ini memberikan pengaruh terhadap sistem kelistrikan di GI Marisa dengan bisa mengurangi drop tegangan yang terjadi dan dapat memperkecil rugi-rugi daya, sehingga memberikan performance sistem kelistrikan Gorontalo yang lebih baik khususnya di wilayah ULP Marisa.

4.5 Ketidakseimbangan Beban

Ketidakseimbangan beban yang ada pada ULP Marisa dilakukan dengan cara pengukuran langsung pada transformator distribusi. Pengukuran dilakukan pada siang hari dan malam hari. Total transformator distribusi yang ada pada ULP adalah kurang lebih 500 unit. Dalam ketidakseimbangan beban ini, yang dianalisis adalah transformator yang diduga mengalami ketidakseimbangan beban. Hal ini dapat diketahui dari data pengukuran transformator distribusi paling ujung. Dalam data pengukuran tersebut, terdapat ada empat unit transformator distribusi yang

mengalami ketidakseimbangan beban. Hasil pengukuran arus pada siang hari dan malam hari dapat dilihat pada Tabel 4.15. Hasil pengukuran tegangan pada siang hari dan malam hari dapat dilihat pada Tabel 4.16. Hasil pengukuran beban pada siang hari dan malam hari dapat dilihat pada Tabel 4.17. Hasil ketidakseimbangan beban dapat dilihat pada Tabel 4.18.

Tabel 4.15 Hasil Pengukuran arus pada siang hari dan malam hari

NO	NO. GARDU	NAMA / LOKASI	PENYULANG	DAYA	SIANG HARI				MALAM HARI			
					ARUS				ARUS			
					R	S	T	N	R	S	T	N
66	GM037	BULILI TANJUNG	**LM.04 UJUNG**	50	41,55	43,85	37,62	17,94	62,43	56,52	38,54	38,82
					15,85	12,55	11,31	8,7	18,83	16,63	12,43	12,62
					25,7	31,3	26,31	9,24	43,6	39,89	26,11	26,2
75	GM047	BUNTULIA JAYA	**MR.04 UJUNG**	100	47,4	38,3	49,8	16,12	80,5	51,5	71,2	37,06
					47,40	38,3	49,8	16,12	80,50	51,5	71,2	37,06
24	GM072	SUKA MAKMUR	**LM.01 UJUNG**	100	46,42	38,61	52,79	10,63	55,86	57,82	68,63	47,81
					12,78	19,11	17,64	10,57	19,15	28,89	39,11	25,86
					33,64	19,5	35,15	0,06	36,71	28,93	29,52	21,95
63	GML 198	LEMITO	**LM.03 UJUNG**	100	140,6	72,78	57,21	88,35	212,9	98	182,85	136,8
					67,7	31,28	47,4	34,75	100,8	44,2	58,1	53
					72,9	41,5	9,81	53,6	112,1	53,8	124,75	83,8

Pada Tabel 4.15 hasil pengukuran arus beban pada siang hari dan malam hari terlihat bahwa arus beban yang berada di masing-masing fasa bervariasi. Pada penyulang LM.04 ujung gardu GM037 yang berlokasi di tanjung bulili pada pengukuran siang hari terlihat arus fasa terbesar ada di fasa S 43,85 A dan arus fasa terkecil ada di fasa T 37,62 A, memiliki selisih arus beban yaitu sebesar 6,23 A. Sedangkan pada pengukuran malam hari terlihat arus fasa terbesar ada pada fasa R

62,43 A dan arus fasa terkecil ada pada arus fasa T 38,54 A, memiliki selisih yaitu sebesar 23,89 A. Pada ujung LM03 pada trafo GML198 pada pengukuran siang hari terlihat arus fasa terbesar ada di fasa R 140,6 A dan arus fasa terkecil ada di fasa T 57,21 A, memiliki selisih arus beban yaitu sebesar 83,9 A. Sedangkan pada pengukuran malam hari terlihat arus fasa terbesar ada pada fasa R 212,8 A dan arus fasa terkecil ada pada arus fasa S 98 A, memiliki selisih yaitu sebesar 114,9 A. Untuk hasil pengukuran tegangan dapat dilihat pada Tabel 4.16.

Tabel 4.16 Hasil Pengukuran tegangan pada siang hari dan malam hari

NO	NO. GARDU	NAMA / LOKASI	PENYULANG	DAYA	SIANG HARI					MALAM HARI				
					TEGANGAN					TEGANGAN				
					PANGKAL				UJUNG	PANGKAL				UJUNG
					P-N			P-P	P-N	P-N			P-P	P-N
					R-N	S-N	T-N			R-N	S-N	T-N		
66	GM037	BULILI TANJUNG	**LM.04 UJUNG**	50	221	219	218	387	221	224	223	224	391	223
75	GM047	BUNTULIA JAYA	**MR.04 UJUNG**	100	228	228	224	400	223	228	227	225	399	227
24	GM072	SUKA MAKMUR	**LM.01 UJUNG**	100	223	223	221	391	227	230	228	226	401	230
63	GML 198	LEMITO	**LM.03 UJUNG**	100	220	221	224	389	218	209	208	213	369	208

Pada Tabel 4.16 hasil pengukuran tegangan pada siang hari dan malam hari terlihat bahwa tegangan yang berada di masing-masing fasa bervariasi. Pada pengukuran siang hari tegangan pangkal antara phasa netral berkisar antara 220 volt sampai 228 volt dan antar fasa berkisar antara 387 volt sampai 400 volt. Sedangkan tegangan yang berada pada ujung untuk tegangan phasa netral berkisar antara 218 volt sampai 227 volt. Pada pengukuran malam hari tegangan pangkal antara phasa

netral berkisar antara 208 volt sampai 230 volt dan antar fasa berkisar antara 369 volt sampai 401 volt. Sedangkan tegangan yang berada pada ujung untuk tegangan phasa netral berkisar antara 208 volt sampai 230 volt. Berdasarkan data pengukuran arus dan tegangan maka akan didapat arus beban rata-rata dan daya VA pada masing masing trafo distribusi serta persentase pembebanan trafo tersebut dari kapasitas yang terpasang. Hal ini dapat dilihat pada Tabel 4.17 hasil pengukuran beban pada siang hari dan malam hari.

Tabel 4.17 Hasil Pengukuran beban pada siang hari dan malam hari

NO	NO. GARDU	NAMA / LOKASI	PENYULANG	DAYA	BEBAN					
					SIANG			MALAM		
					RATA2	KVA	%	RATA2	KVA	%
66	GM037	BULILI TANJUNG	**LM.04 UJUNG**	50	41,007	27,454	54,9%	52,497	35,510	71,0%
					13,237			15,963		
					27,770			36,533		
75	GM047	BUNTULIA JAYA	**MR.04 UJUNG**	100	45,167	31,255	31,3%	67,733	46,754	46,8%
					45,167			67,733		
24	GM072	SUKA MAKMUR	**LM.01 UJUNG**	100	45,940	31,075	31,1%	60,770	42,158	42,2%
					16,510			29,050		
					29,430			31,720		
63	GML 198	LEMITO	**LM.03 UJUNG**	100	90,197	60,700	60,7%	164,583	105,065	105,1%
					48,793			67,700		
					41,403			96,883		

Pada Tabel 4.17 hasil pengukuran beban pada siang hari dan malam hari terlihat bahwa arus beban rata rata, kapasitas trafo dan persentase pembebanan trafo pada penyulang LM.04 ujung gardu GM037 yang berlokasi di tanjung bulili pada pengukuran siang hari terlihat arus rata-rata adalah 41,007 A dengan beban tersambung 27,454 kVa dari kapasitas trafo terpasang 50 kVa, dengan persentase

pembebanan trafo adalah sebesar 54,9%. Sedangkan pada pengukuran malam hari terlihat arus rata-rata adalah 52,497 A dengan beban tersambung 35,510 kVa dari kapasitas trafo terpasang 50 kVa, dengan persentase pembebanan trafo adalah sebesar 46,8%. Pada penyulang LM.03 ujung gardu GML198 yang berlokasi di Lemito pada pengukuran siang hari terlihat arus rata-rata adalah 90,197 A dengan beban tersambung 60,700 kVa dari kapasitas trafo terpasang 100 kVa, dengan persentase pembebanan trafo adalah sebesar 60,7%. Sedangkan pada pengukuran malam hari terlihat arus rata-rata adalah 164,583 A dengan beban tersambung 105,065 kVa dari kapasitas trafo terpasang 100 kVa, dengan persentase pembebanan trafo adalah sebesar 105,1%. Sedangkan untuk penyulang MR.4 ujung gardu (GM047) dan penyulang LM.01 ujung (GM072) masing-masing untuk persentase pembebanan trafo adalah sebesar 46,8% dan 42,2% dari kapsitas trafo terpasang yaitu 100 kVa. Hal ini menandakan bahwa persentase pembebanan trafo pada penyulang ujung LM.04 (GM037) masih dikatakan normal. Penyulang MR.04 ujung (GM047) dan penyulang LM.01 ujung (GM072) pembebanannya masih dibawah *(Underload)*, sedangkan untuk penyulang LM.03 ujung lemito (GML198) dikatakan sudah *overload.* Sehingga untuk GML198 bisa diupgrade kapsitas trafonya atau dilakukan penambahan unit trafo berdasarkan area beban. Untuk ketidakseimbangan beban berdasarkan hasil data pengukuran dapat dilihat pada Tabel 4.18

Tabel 4.18 Hasil ketidakseimbangan beban pada siang hari dan malam hari

NO	NO. GARDU	NAMA / LOKASI	PENYULANG	DAYA	UNBALANCED SIANG	UNBALANCED MALAM
66	GM037	BULILI TANJUNG	**LM.04 UJUNG**	50	5,5%	17,7%
					13,2%	14,8%

					8,5%	19,0%
75	GM047	BUNTULIA JAYA	**MR.04 UJUNG**	100	10,1%	16,0%
					10,1%	16,0%
24	GM072	SUKA MAKMUR	**LM.01 UJUNG**	100	10,6%	8,6%
					15,1%	23,1%
					22,5%	10,5%
63	GML 198	LEMITO	**LM.03 UJUNG**	100	37,3%	27,0%
					25,8%	32,6%
					50,9%	29,6%

Pada Tabel 4.18 hasil pengukuran ketidakseimbangan beban pada siang hari dan malam hari terlihat bahwa ketidakseimbangan beban pada penyulang LM.04 ujung gardu GM037 yang berlokasi di tanjung bulili pada pengukuran siang hari persentase ketidakseimbangan beban sebesar 5,5% dan pada malam hari adalah sebesar 17,7%. Pada penyulang LM.03 ujung gardu GML198 yang berlokasi di Lemito pada pengukuran siang hari terlihat bahwa persentase ketidakseimbangan beban adalah sebesar 37,3% dan pada waktu malam hari adalah sebesar 27%. Sedangkan untuk penyulang MR.4 ujung gardu (GM047) dan penyulang LM.01 ujung (GM072) masing-masing untuk persentase ketidakseimbagan beban pada siang hari adalah sebesar 10,1,8% dan 10,6%, sedangkan pada malam hari masing masing adalah sebesar 16% dan 8,6%. Hal ini menandakan bahwa berdasarkan persentase ketidakseimbangan beban terbesar ada pada penyulang ujung lemito LM.03 (GML198) sedangkan yang terkecil ada pada gardu GM 037 (LM.04). Penyebab ketidakseimbangan beban tersebut dipengarui oleh pola penyambungan SR (Sambungan Rumah) pada proses sambung baru tidak memperhatikan kondisi beban fasa pada gardu distribusi.

BAB V

PENUTUP

5.1 Kesimpulan

Berdasarkan hasil analisis sistem kelistrikan pada ULP Marisa terhadap rekonfigurasi jaringan system (pecah beban), maka dapat ditarik kesimpulan sebagai berikut :

1. Adanya rekonfigurasi pada sistem kelistrikan ULP Marisa di GI Marisa out going 20 kV adalah dapat meminimalisir drop tegangan pada setiap bus GI Gobar out going 20 kV dan Gardu Hubung Marisa serta bus pada ujun saluran..
2. Sesudah rekonfigurasi pada sistem kelistrikan ULP Marisa di GI Marisa out going 20 kV, dapat meminimalisir rugi-rugi daya baik rugi-rugi daya aktif dan daya reaktif, sehingga memberikan performance sistem lebih baik.
3. Ketidakseimbangan beban terbesar terjadi pada ujung saluran lemito LM3 ujung pada trafo GML198 sebesar 37,3% pada siang hari dan 27% pada malam hari. Sehingga perlu dilakukan pemerataan beban.

5.2 Saran

Setelah melakukan anailis jatuh tegangan dan rugi-rugi daya terhadap rekonfigurasi di sistem kelistrikan ULP Marisa maka di peroleh hasil adanya perubahan aliran daya pada sistem kelistrikan Gorontalo di GI Marisa. Dengan hal ini akan mempengarui sistem stabilitas frekuensi, stabilitas tegangan dan kinerja sistem proteksi, sehingga dibutuhkan penelitian lebih lanjut tentang studi kestabilan

dan kinerja sistem proteksi pada sistem tenaga listrik Gorontalo khususnya di wilayah kerja ULP Marisa.

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PENUTUP

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1. Adanya rekonfigurasi pada sistem kelistrikan ULP Marisa di GI Marisa out going 20 kV adalah dapat meminimalisir drop tegangan pada setiap bus GI Gobar out going 20 kV dan Gardu Hubung Marisa serta bus pada ujun saluran..
2. Sesudah rekonfigurasi pada sistem kelistrikan ULP Marisa di GI Marisa out going 20 kV, dapat meminimalisir rugi-rugi daya baik rugi-rugi daya aktif dan daya reaktif, sehingga memberikan performance sistem lebih baik.

5.2 Saran

Setelah melakukan anailis jatuh tegangan dan rugi-rugi daya terhadap rekonfigurasi di sistem kelistrikan ULP Marisa maka di peroleh hasil adanya perubahan aliran daya pada sistem kelistrikan Gorontalo di GI Marisa. Dengan hal ini akan mempengarui sistem stabilitas frekuensi, stabilitas tegangan dan kinerja sistem proteksi, sehingga dibutuhkan penelitian lebih lanjut tentang studi kestabilan dan kinerja sistem proteksi pada sistem tenaga listrik Gorontalo khususnya di wilayah kerja ULP Marisa.

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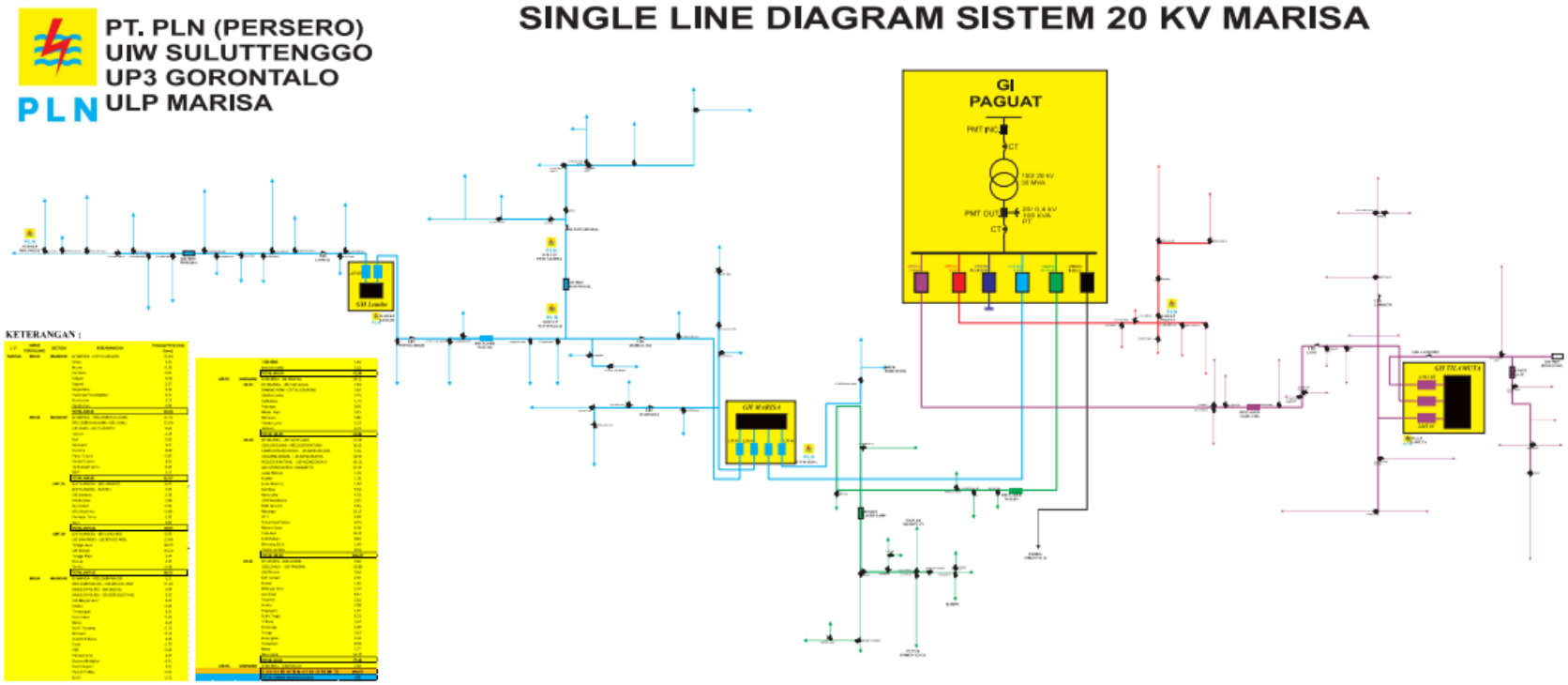
Tabel Lampiran 1. Data beban puncak malam ULP Marisa Sebelum rekonfigurasi

BEBAN PUNCAK MALAM SUB-SISTEM ULP MARISA 2022				
NO	**PENYULANG**	**SECTION**	**KMS**	**WBP MALAM**
1	MR.01 / ULIN	GI Paguat - Jumper RM Kapuas	36,4	33
2	MR.02 / REAKTOR	Reaktor GI Paguat	0	0
3	MR.03 / JATI	GI Paguat - GH Marisa	13,80	0
	LM.01	GH Marisa - LBS Duhiadaa - Ujung	31,7	55
	LM.03	GH Marisa - LBS Iloheluma - (LBS Manunggal - Pancakarsa) - Recloser Patuhu - LBS Wonggarasi - GH Lemito - LBS Lomuli - LBS Trikora - Molosipat	235,6	136
	LM.04	GH Marisa - Botubilatohe	11,5	60
4	MR.04 / DAMAR	GI Paguat - GH Marisa	16,1	18
5	MR.06 / PINUS	GI Paguat - Recloser Salilama - LBS Lamu - GH Tilamuta	68,3	41
6	TA.04	GI Tilamuta - LBS Bongonol - (LBS Dulupi) - LBS Lahumbo	70,3	30
	LMT.01	GH Tilamuta - Dalam Kota Tilamuta	26,8	64

Tabel Lampiran 1. Data beban puncak malam ULP Marisa Setelah rekonfigurasi

BEBAN PUNCAK MALAM SUB-SISTEM ULP MARISA 2022				
NO	**PENYULANG**	**SECTION**	**KMS**	**WBP MALAM**
1	MR.01 / ULIN	GI Paguat - Jumper RM Kapuas	36,4	33
2	MR.02 / REAKTOR	Reaktor GI Paguat	0	0
3	MR.03 / JATI	GI Paguat - GH Marisa	13,80	0
	LM.03	GH Marisa - LBS Iloheluma - (LBS Manunggal - Pancakarsa) - Recloser Patuhu - LBS Wonggarasi - GH Lemito - LBS Lomuli - LBS Trikora - Molosipat	235,6	136
4	MR.04 / DAMAR	GI Paguat - GH Marisa	16,1	18
	LM.01	GH Marisa - LBS Duhiadaa - Ujung	31,7	55
	LM.04	GH Marisa - Botubilatohe	11,5	60
5	MR.06 / PINUS	GI Paguat - Recloser Salilama - LBS Lamu - GH Tilamuta	68,3	41
6	TA.04	GI Tilamuta - LBS Bongonol - (LBS Dulupi) - LBS Lahumbo	70,3	30
	LMT.01	GH Tilamuta - Dalam Kota Tilamuta	26,8	64



Gambar Lampiran 4. Single Line ULP Marisa

LAMPIRAN HASIL SIMULASI SEBELUM REKONFIGURASI

JARINGAN DISTRIBUSI

Electrical Transient Analyzer Program

Load Flow Analysis

Loading Category (1): WBP2018

Generation Category (1): Design

Load Diversity Factor: None

	Swing	V-Control	Load	Total
Number of Buses:	2	0	1052	1054

	XFMR2	XFMR3	Reactor	Line/Cable/ Busway	Impedance	Tie PD	Total
Number of Branches:	460	0	0	590	0	2	1052

Method of Solution:	Adaptive Newton-Raphson Method
Maximum No. of Iteration:	99
Precision of Solution:	0.0001000
System Frequency:	50.00 Hz
Unit System:	Metric
Project Filename:	Etap Sebelum
Output Filename:	D:\Data Nitip\Nitip Yogi\Etap Sebelum\Etap Sebelum\Etap sebelum\Untitled.lfr

Adjustments

Tolerance	Apply Adjustments	Individual /Global	Percent
Transformer Impedance:	Yes	Individual	
Reactor Impedance:	Yes	Individual	
Overload Heater Resistance:	No		
Transmission Line Length:	No		
Cable / Busway Length:	No		

Temperature Correction	Apply Adjustments	Individual /Global	Degree C
Transmission Line Resistance:	Yes	Individual	
Cable / Busway Resistance:	Yes	Individual	

Bus Input Data

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_1	20.000	1	100.0	0.0								
Bus_LM1_2	0.400	1	100.0	0.0	0.028	0.017	0.007	0.004				
Bus_LM1_3	20.000	1	100.0	0.0								
Bus_LM1_6	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM1_7	20.000	1	100.0	0.0								
Bus_LM1_8	0.400	1	100.0	0.0	0.033	0.020	0.008	0.005				
Bus_LM1_9	20.000	1	100.0	0.0								
Bus_LM1_10	0.400	1	100.0	0.0	0.002	0.001						
Bus_LM1_11	20.000	1	100.0	0.0								
Bus_LM1_12	0.400	1	100.0	0.0	0.034	0.021	0.008	0.005				
Bus_LM1_13	20.000	1	100.0	0.0								
Bus_LM1_14	0.400	1	100.0	0.0	0.022	0.014	0.006	0.003				
Bus_LM1_15	20.000	1	100.0	0.0								
Bus_LM1_16	0.400	1	100.0	0.0	0.018	0.011	0.004	0.003				
Bus_LM1_17	20.000	1	100.0	0.0								
Bus_LM1_18	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM1_19	20.000	1	100.0	0.0								
Bus_LM1_20	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_21	20.000	1	100.0	0.0								
Bus_LM1_25	20.000	1	100.0	0.0								
Bus_LM1_26	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM1_31	20.000	1	100.0	0.0								
Bus_LM1_32	0.400	1	100.0	0.0	0.016	0.010	0.004	0.002				
Bus_LM1_33	20.000	1	100.0	0.0								
Bus_LM1_34	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
Bus_LM1_35	20.000	1	100.0	0.0								
Bus_LM1_36	0.400	1	100.0	0.0	0.008	0.005	0.002	0.001				
Bus_LM1_37	20.000	1	100.0	0.0								
Bus_LM1_38	0.400	1	100.0	0.0	0.019	0.012	0.005	0.003				
Bus_LM1_39	20.000	1	100.0	0.0								
Bus_LM1_40	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
Bus_LM1_41	20.000	1	100.0	0.0								
Bus_LM1_42	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_43	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
Bus_LM1_44	20.000	1	100.0	0.0								
Bus_LM1_45	0.400	1	100.0	0.0	0.016	0.010	0.004	0.003				
Bus_LM1_46	20.000	1	100.0	0.0								
Bus_LM1_47	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_58	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
Bus_LM1_59	20.000	1	100.0	0.0								
Bus_LM1_60	0.400	1	100.0	0.0	0.016	0.010	0.004	0.002				
Bus_LM1_61	0.400	1	100.0	0.0	0.018	0.011	0.004	0.003				
Bus_LM1_62	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
Bus_LM1_63	20.000	1	100.0	0.0								
Bus_LM1_64	20.000	1	100.0	0.0								
Bus_LM1_65	20.000	1	100.0	0.0								
Bus_LM1_66	20.000	1	100.0	0.0								
Bus_LM1_67	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
Bus_LM1_70	20.000	1	100.0	0.0								
Bus_LM1_71	0.400	1	100.0	0.0	0.022	0.014	0.006	0.003				
Bus_LM1_74	20.000	1	100.0	0.0								
Bus_LM1_75	0.400	1	100.0	0.0	0.014	0.009	0.004	0.002				
Bus_LM1_76	20.000	1	100.0	0.0								
Bus_LM1_77	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
Bus_LM1_78	20.000	1	100.0	0.0								
Bus_LM1_79	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
Bus_LM1_80	20.000	1	100.0	0.0								
Bus_LM1_81	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_82	20.000	1	100.0	0.0								
Bus_LM1_83	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_84	20.000	1	100.0	0.0								
Bus_LM1_85	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_86	20.000	1	100.0	0.0								
Bus_LM1_87	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_91	20.000	1	100.0	0.0								
Bus_LM1_92	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_93	20.000	1	100.0	0.0								
Bus_LM1_94	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_95	20.000	1	100.0	0.0								
Bus_LM1_96	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_97	20.000	1	100.0	0.0								
Bus_LM1_98	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM1_99	20.000	1	100.0	0.0								
Bus_LM1_100	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_101	20.000	1	100.0	0.0								
Bus_LM1_102	0.400	1	100.0	0.0	0.010	0.006	0.002	0.001				
Bus_LM1_111	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_112	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
Bus_LM1_113	20.000	1	100.0	0.0								
Bus_LM1_114	20.000	1	100.0	0.0								
Bus_LM1_115	20.000	1	100.0	0.0								
Bus_LM1_116	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
Bus_LM1_123	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_124	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
Bus_LM1_125	20.000	1	100.0	0.0								
Bus_LM1_126	20.000	1	100.0	0.0								
Bus_LM1_127	20.000	1	100.0	0.0								
Bus_LM1_128	0.400	1	100.0	0.0	0.034	0.021	0.008	0.005				
Bus_LM1_135	0.400	1	100.0	0.0	0.002	0.001						
Bus_LM1_136	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_137	20.000	1	100.0	0.0								
Bus_LM1_138	20.000	1	100.0	0.0								
Bus_LM1_139	20.000	1	100.0	0.0								
Bus_LM1_140	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_147	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
Bus_LM1_148	0.400	1	100.0	0.0	0.010	0.006	0.002	0.001				
Bus_LM1_149	20.000	1	100.0	0.0								
Bus_LM1_150	20.000	1	100.0	0.0								
Bus_LM1_151	20.000	1	100.0	0.0								
Bus_LM1_152	0.400	1	100.0	0.0	0.029	0.018	0.007	0.004				
Bus_LM1_153	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_154	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
Bus_LM1_155	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_156	20.000	1	100.0	0.0								
Bus_LM1_157	20.000	1	100.0	0.0								
Bus_LM1_158	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_159	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_160	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_161	20.000	1	100.0	0.0								
Bus_LM1_162	20.000	1	100.0	0.0								
Bus_LM1_163	20.000	1	100.0	0.0								
Bus_LM1_164	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_167	20.000	1	100.0	0.0								
Bus_LM1_168	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_169	20.000	1	100.0	0.0								
Bus_LM1_189	20.000	1	100.0	0.0								
Bus_LM1_190	20.000	1	100.0	0.0								
Bus_LM1_191	20.000	1	100.0	0.0								
Bus_LM1_193	20.000	1	100.0	0.0								
Bus_LM1_195	20.000	1	100.0	0.0								
Bus_LM1_196	20.000	1	100.0	0.0								
Bus_LM1_197	20.000	1	100.0	0.0								
Bus_LM1_198	20.000	1	100.0	0.0								
Bus_LM1_200	20.000	1	100.0	0.0								
Bus_LM1_202	20.000	1	100.0	0.0								
Bus_LM1_203	20.000	1	100.0	0.0								
Bus_LM1_204	20.000	1	100.0	0.0								
Bus_LM1_209	20.000	1	100.0	0.0								
Bus_LM1_210	20.000	1	100.0	0.0								
Bus_LM1_211	20.000	1	100.0	0.0								
Bus_LM1_212	20.000	1	100.0	0.0								
Bus_LM1_215	20.000	1	100.0	0.0								
Bus_LM1_217	20.000	1	100.0	0.0								
Bus_LM1_218	20.000	1	100.0	0.0								
Bus_LM1_219	20.000	1	100.0	0.0								
Bus_LM1_220	20.000	1	100.0	0.0								
Bus_LM1_221	20.000	1	100.0	0.0								
Bus_LM1_222	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_224	20.000	1	100.0	0.0								
Bus_LM1_226	20.000	1	100.0	0.0								
Bus_LM1_227	20.000	1	100.0	0.0								
Bus_LM1_228	20.000	1	100.0	0.0								
Bus_LM1_229	20.000	1	100.0	0.0								
Bus_LM1_230	20.000	1	100.0	0.0								
Bus_LM1_231	20.000	1	100.0	0.0								
Bus_LM1_232	20.000	1	100.0	0.0								
Bus_LM1_233	20.000	1	100.0	0.0								
Bus_LM1_236	20.000	1	100.0	0.0								
Bus_LM1_237	20.000	1	100.0	0.0								
Bus_LM1_238	20.000	1	100.0	0.0								
Bus_LM1_239	20.000	1	100.0	0.0								
Bus_LM1_240	20.000	1	100.0	0.0								
Bus_LM1_241	20.000	1	100.0	0.0								
Bus_LM1_242	20.000	1	100.0	0.0								
Bus_LM1_243	20.000	1	100.0	0.0								
Bus_LM1_244	20.000	1	100.0	0.0								
Bus_LM1_245	20.000	1	100.0	0.0								
Bus_LM1_249	20.000	1	100.0	0.0								
Bus_LM1_251	20.000	1	100.0	0.0								
Bus_LM1_253	20.000	1	100.0	0.0								
Bus_LM1_254	20.000	1	100.0	0.0								
Bus_LM1_255	20.000	1	100.0	0.0								
Bus_LM1_258	20.000	1	100.0	0.0								
Bus_LM1_259	20.000	1	100.0	0.0								
Bus_LM1_264	20.000	1	100.0	0.0								
Bus_LM1_265	20.000	1	100.0	0.0								
Bus_LM1_266	20.000	1	100.0	0.0								
Bus_LM1_267	20.000	1	100.0	0.0								
Bus_LM1_270	20.000	1	100.0	0.0								
Bus_LM1_271	20.000	1	100.0	0.0								
Bus_LM1_274	20.000	1	100.0	0.0								
Bus_LM1_275	20.000	1	100.0	0.0								
Bus_LM1_277	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_278	20.000	1	100.0	0.0								
Bus_LM1_281	20.000	1	100.0	0.0								
Bus_LM1_282	20.000	1	100.0	0.0								
Bus_LM1_283	20.000	1	100.0	0.0								
Bus_LM1_284	20.000	1	100.0	0.0								
Bus_LM1_285	20.000	1	100.0	0.0								
Bus_LM1_286	20.000	1	100.0	0.0								
Bus_LM1_288	20.000	1	100.0	0.0								
Bus_LM1_292	20.000	1	100.0	0.0								
Bus_LM1_293	20.000	1	100.0	0.0								
Bus_LM1_294	20.000	1	100.0	0.0								
Bus_LM1_298	20.000	1	100.0	0.0								
Bus_LM1_299	20.000	1	100.0	0.0								
Bus_LM1_300	20.000	1	100.0	0.0								
Bus_LM1_304	20.000	1	100.0	0.0								
Bus_LM1_305	20.000	1	100.0	0.0								
Bus_LM1_306	20.000	1	100.0	0.0								
Bus_LM1_307	20.000	1	100.0	0.0								
Bus_LM1_309	20.000	1	100.0	0.0								
Bus_LM1_312	20.000	1	100.0	0.0								
Bus_LM1_313	20.000	1	100.0	0.0								
Bus_LM1_318	20.000	1	100.0	0.0								
Bus_LM1_319	20.000	1	100.0	0.0								
Bus_LM1_320	20.000	1	100.0	0.0								
Bus_LM1_321	20.000	1	100.0	0.0								
Bus_LM1_322	20.000	1	100.0	0.0								
Bus_LM1_327	20.000	1	100.0	0.0								
Bus_LM1_328	20.000	1	100.0	0.0								
Bus_LM1_329	20.000	1	100.0	0.0								
Bus_LM1_330	20.000	1	100.0	0.0								
Bus_LM1_335	20.000	1	100.0	0.0								
Bus_LM1_336	20.000	1	100.0	0.0								
Bus_LM1_337	20.000	1	100.0	0.0								
Bus_LM1_338	20.000	1	100.0	0.0								
Bus_LM1_343	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_344	20.000	1	100.0	0.0								
Bus_LM1_345	20.000	1	100.0	0.0								
Bus_LM1_346	20.000	1	100.0	0.0								
Bus_LM1_353	20.000	1	100.0	0.0								
Bus_LM1_354	20.000	1	100.0	0.0								
Bus_LM1_355	20.000	1	100.0	0.0								
Bus_LM1_356	20.000	1	100.0	0.0								
Bus_LM1_357	20.000	1	100.0	0.0								
Bus_LM1_358	20.000	1	100.0	0.0								
Bus_LM1_359	20.000	1	100.0	0.0								
Bus_LM1_361	20.000	1	100.0	0.0								
Bus_LM1_362	20.000	1	100.0	0.0								
Bus_LM1_366	20.000	1	100.0	0.0								
Bus_LM1_367	20.000	1	100.0	0.0								
Bus_LM1_368	20.000	1	100.0	0.0								
Bus_LM1_369	20.000	1	100.0	0.0								
Bus_LM1_375	20.000	1	100.0	0.0								
Bus_LM1_376	20.000	1	100.0	0.0								
Bus_LM1_377	20.000	1	100.0	0.0								
Bus_LM1_380	20.000	1	100.0	0.0								
Bus_LM1_383	20.000	1	100.0	0.0								
Bus_LM1_384	20.000	1	100.0	0.0								
Bus_LM1_385	20.000	1	100.0	0.0								
Bus_LM1_386	20.000	1	100.0	0.0								
Bus_LM3_3	20.000	1	100.0	0.0								
Bus_LM3_4	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_5	20.000	1	100.0	0.0								
Bus_LM3_6	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_7	20.000	1	100.0	0.0								
Bus_LM3_8	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_9	20.000	1	100.0	0.0								
Bus_LM3_10	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_11	20.000	1	100.0	0.0								
Bus_LM3_12	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_13	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_14	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
Bus_LM3_27	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_28	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_29	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_30	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_31	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
Bus_LM3_32	20.000	1	100.0	0.0								
Bus_LM3_33	20.000	1	100.0	0.0								
Bus_LM3_34	20.000	1	100.0	0.0								
Bus_LM3_35	20.000	1	100.0	0.0								
Bus_LM3_36	20.000	1	100.0	0.0								
Bus_LM3_37	20.000	1	100.0	0.0								
Bus_LM3_38	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_40	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_41	20.000	1	100.0	0.0								
Bus_LM3_56	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_57	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_58	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_59	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_60	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_61	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_62	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_63	20.000	1	100.0	0.0								
Bus_LM3_64	20.000	1	100.0	0.0								
Bus_LM3_65	20.000	1	100.0	0.0								
Bus_LM3_66	20.000	1	100.0	0.0								
Bus_LM3_67	20.000	1	100.0	0.0								
Bus_LM3_68	20.000	1	100.0	0.0								
Bus_LM3_69	20.000	1	100.0	0.0								
Bus_LM3_74	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_75	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_76	20.000	1	100.0	0.0								
Bus_LM3_77	20.000	1	100.0	0.0								
Bus_LM3_78	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_79	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_80	20.000	1	100.0	0.0								
Bus_LM3_81	20.000	1	100.0	0.0								
Bus_LM3_82	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_83	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_84	20.000	1	100.0	0.0								
Bus_LM3_85	20.000	1	100.0	0.0								
Bus_LM3_86	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_87	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_88	20.000	1	100.0	0.0								
Bus_LM3_89	20.000	1	100.0	0.0								
Bus_LM3_94	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_95	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_96	20.000	1	100.0	0.0								
Bus_LM3_97	20.000	1	100.0	0.0								
Bus_LM3_108	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_109	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_110	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_111	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_112	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_113	20.000	1	100.0	0.0								
Bus_LM3_114	20.000	1	100.0	0.0								
Bus_LM3_115	20.000	1	100.0	0.0								
Bus_LM3_116	20.000	1	100.0	0.0								
Bus_LM3_117	20.000	1	100.0	0.0								
Bus_LM3_128	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_129	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_130	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_131	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_132	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_133	20.000	1	100.0	0.0								
Bus_LM3_134	20.000	1	100.0	0.0								
Bus_LM3_135	20.000	1	100.0	0.0								
Bus_LM3_136	20.000	1	100.0	0.0								
Bus_LM3_137	20.000	1	100.0	0.0								
Bus_LM3_140	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_141	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_144	20.000	1	100.0	0.0								
Bus_LM3_145	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_146	20.000	1	100.0	0.0								
Bus_LM3_147	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_152	20.000	1	100.0	0.0								
Bus_LM3_153	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_156	20.000	1	100.0	0.0								
Bus_LM3_157	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_159	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_160	20.000	1	100.0	0.0								
Bus_LM3_161	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_162	20.000	1	100.0	0.0								
Bus_LM3_163	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_164	20.000	1	100.0	0.0								
Bus_LM3_165	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_166	20.000	1	100.0	0.0								
Bus_LM3_167	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_170	20.000	1	100.0	0.0								
Bus_LM3_171	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_173	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_175	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_176	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_177	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_178	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_180	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_182	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_183	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_184	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_188	20.000	1	100.0	0.0								
Bus_LM3_188_	20.000	1	100.0	0.0								
Bus_LM3_189	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_191	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_192	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_193	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_194	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_196	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_198	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_199	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_200	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_201	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_202	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_203	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_205	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_207	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_208	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_209	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_210	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_211	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_212	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_213	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_214	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_217	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_218	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_219	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_220	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_221	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_222	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_223	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_224	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_225	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_226	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_230	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_232	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_234	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_235	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_236	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_239	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_240	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_245	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_246	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_247	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_248	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_251	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_252	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_255	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_256	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_258	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_261	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_262	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_263	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_264	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_265	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_266	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_268	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_272	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_273	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_274	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_278	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_279	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_280	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_284	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_285	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_286	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_288	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_291	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_292	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_297	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_298	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_299	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_300	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_305	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_306	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_307	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_308	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_313	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_314	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_315	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_316	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_321	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_322	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_323	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_324	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_331	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_332	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_333	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_334	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_335	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_336	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_338	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_339	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_343	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
Bus_LM3_344	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_345	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_350	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_351	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_352	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_354	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_357	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_358	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_359	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_360	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_362	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_MR1_GMP1	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
Bus_MR1_GMP2	20.000	1	100.0	0.0								
Bus_MR1_GMP5	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
Bus_MR1_GMP6	20.000	1	100.0	0.0								
Bus_MR1_GMP7	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP8	20.000	1	100.0	0.0								
Bus_MR1_GMP9	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_MR1_GMP10	20.000	1	100.0	0.0								
Bus_MR1_GMP11	0.400	1	100.0	0.0	0.102	0.063	0.026	0.016				
Bus_MR1_GMP12	20.000	1	100.0	0.0								
Bus_MR1_GMP13	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP14	20.000	1	100.0	0.0								
Bus_MR1_GMP15	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP16	20.000	1	100.0	0.0								
Bus_MR1_GMP17	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP18	20.000	1	100.0	0.0								
Bus_MR1_GMP19	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP20	20.000	1	100.0	0.0								
Bus_MR1_GMP21	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP22	20.000	1	100.0	0.0								
Bus_MR1_GMP23	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP24	20.000	1	100.0	0.0								
Bus_MR1_GMP25	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP26	20.000	1	100.0	0.0								
Bus_MR1_GMP27	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP28	20.000	1	100.0	0.0								
Bus_MR1_GMP29	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_MR1_GMP30	20.000	1	100.0	0.0								
Bus_MR1_GMP31	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP32	20.000	1	100.0	0.0								
Bus_MR1_GMP33	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP34	20.000	1	100.0	0.0								
Bus_MR1_GMP35	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP36	20.000	1	100.0	0.0								
Bus_MR1_GMP37	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP38	20.000	1	100.0	0.0								
Bus_MR1_GMP43	20.000	1	100.0	0.0								
Bus_MR1_GMP44	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP45	20.000	1	100.0	0.0								
Bus_MR1_GMP46	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP47	20.000	1	100.0	0.0								
Bus_MR1_GMP48	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_MR1_GMP49	20.000	1	100.0	0.0								
Bus_MR1_GMP50	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP51	20.000	1	100.0	0.0								
Bus_MR1_GMP52	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP53	20.000	1	100.0	0.0								
Bus_MR1_GMP54	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP55	20.000	1	100.0	0.0								
Bus_MR1_GMP56	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP57	20.000	1	100.0	0.0								
Bus_MR1_GMP58	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP59	20.000	1	100.0	0.0								
Bus_MR1_GMP60	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP61	20.000	1	100.0	0.0								
Bus_MR1_GMP62	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP63	20.000	1	100.0	0.0								
Bus_MR1_GMP64	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP65	20.000	1	100.0	0.0								
Bus_MR1_GMP66	0.400	1	100.0	0.0	0.082	0.051	0.020	0.013				
Bus_MR1_GMP72	20.000	1	100.0	0.0								
Bus_MR1_GMP73	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP74	20.000	1	100.0	0.0								
Bus_MR1_GMP75	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP76	20.000	1	100.0	0.0								
Bus_MR1_GMP77	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP78	20.000	1	100.0	0.0								
Bus_MR1_GMP79	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
Bus_MR1_GMP80	20.000	1	100.0	0.0								
Bus_MR1_GMP81	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP82	20.000	1	100.0	0.0								
Bus_MR1_GMP83	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP86	20.000	1	100.0	0.0								
Bus_MR1_GMP87	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP92	20.000	1	100.0	0.0								
Bus_MR1_GMP93	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
Bus_MR1_GMP94	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_MR1_GMP97	20.000	1	100.0	0.0								
Bus_MR1_GMP98	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
B_AG2_GK7	20.000	1	100.0	0.0								
B_GI_MARISA	150.000	1	100.0	0.0								
B_LM3	20.000	1	100.0	0.0								
B_LMT1_GMT1	20.000	1	100.0	0.0								
B_LMT1_GMT2	0.400	1	100.0	0.0	0.059	0.037	0.015	0.009				
B_LMT1_GMT3	20.000	1	100.0	0.0								
B_LMT1_GMT7	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
B_LMT1_GMT8	20.000	1	100.0	0.0								
B_LMT1_GMT9	20.000	1	100.0	0.0								
B_LMT1_GMT16	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_LMT1_GMT17	20.000	1	100.0	0.0								
B_LMT1_GMT18	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_LMT1_GMT19	20.000	1	100.0	0.0								
B_LMT1_GMT20	20.000	1	100.0	0.0								
B_LMT1_GMT21	20.000	1	100.0	0.0								
B_LMT1_GMT25	0.400	1	100.0	0.0	0.003	0.002						
B_LMT1_GMT27	20.000	1	100.0	0.0								
B_LMT1_GMT28	20.000	1	100.0	0.0								
B_LMT1_GMT32	0.400	1	100.0	0.0	0.022	0.013	0.005	0.003				
B_LMT1_GMT33	20.000	1	100.0	0.0								
B_LMT1_GMT34	20.000	1	100.0	0.0								
B_LMT1_GMT35	20.000	1	100.0	0.0								
B_LMT1_GMT39	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
B_LMT1_GMT41	20.000	1	100.0	0.0								
B_LMT1_GMT42	20.000	1	100.0	0.0								
B_LMT1_GMT45	0.400	1	100.0	0.0	0.032	0.020	0.008	0.005				
B_LMT1_GMT46	20.000	1	100.0	0.0								
B_LMT1_GMT47	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT1_GMT48	20.000	1	100.0	0.0								
B_LMT1_GMT55	0.400	1	100.0	0.0	0.002	0.001						
B_LMT1_GMT56	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
B_LMT1_GMT57	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
B_LMT1_GMT58	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT59	20.000	1	100.0	0.0								
B_LMT1_GMT60	20.000	1	100.0	0.0								
B_LMT1_GMT61	20.000	1	100.0	0.0								
B_LMT1_GMT66	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT1_GMT67	0.400	1	100.0	0.0	0.007	0.005	0.002	0.001				
B_LMT1_GMT68	20.000	1	100.0	0.0								
B_LMT1_GMT69	20.000	1	100.0	0.0								
B_LMT1_GMT75	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
B_LMT1_GMT76	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_LMT1_GMT77	20.000	1	100.0	0.0								
B_LMT1_GMT78	20.000	1	100.0	0.0								
B_LMT1_GMT79	20.000	1	100.0	0.0								
B_LMT1_GMT80	20.000	1	100.0	0.0								
B_LMT1_GMT84	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT1_GMT85	20.000	1	100.0	0.0								
B_LMT1_GMT86	20.000	1	100.0	0.0								
B_LMT1_GMT90	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT1_GMT91	20.000	1	100.0	0.0								
B_LMT1_GMT92	20.000	1	100.0	0.0								
B_LMT1_GMT98	0.400	1	100.0	0.0	0.048	0.030	0.012	0.007				
B_LMT1_GMT99	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT1_GMT100	20.000	1	100.0	0.0								
B_LMT1_GMT101	20.000	1	100.0	0.0								
B_LMT1_GMT102	20.000	1	100.0	0.0								
B_LMT1_GMT103	20.000	1	100.0	0.0								
B_LMT1_GMT107	0.400	1	100.0	0.0	0.056	0.035	0.014	0.009				
B_LMT1_GMT108	20.000	1	100.0	0.0								
B_LMT1_GMT109	20.000	1	100.0	0.0								
B_LMT1_GMT110	20.000	1	100.0	0.0								
B_LMT1_GMT116	20.000	1	100.0	0.0								
B_LMT1_GMT117	0.400	1	100.0	0.0	0.061	0.038	0.015	0.009				
B_LMT1_GMT118	0.400	1	100.0	0.0	0.029	0.018	0.007	0.004				
B_LMT1_GMT119	20.000	1	100.0	0.0								
B_LMT1_GMT120	20.000	1	100.0	0.0								
B_LMT1_GMT121	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT125	0.400	1	100.0	0.0	0.037	0.023	0.009	0.006				
B_LMT1_GMT126	20.000	1	100.0	0.0								
B_LMT1_GMT127	20.000	1	100.0	0.0								
B_LMT1_GMT128	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT1_GMT129	20.000	1	100.0	0.0								
B_LMT1_GMT130	20.000	1	100.0	0.0								
B_LMT1_GMT137	0.400	1	100.0	0.0	0.025	0.016	0.006	0.004				
B_LMT1_GMT138	20.000	1	100.0	0.0								
B_LMT1_GMT139	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_LMT1_GMT140	20.000	1	100.0	0.0								
B_LMT1_GMT141	20.000	1	100.0	0.0								
B_LMT1_GMT142	20.000	1	100.0	0.0								
B_LMT1_GMT146	0.400	1	100.0	0.0	0.049	0.030	0.012	0.008				
B_LMT1_GMT147	20.000	1	100.0	0.0								
B_LMT1_GMT148	20.000	1	100.0	0.0								
B_LMT1_GMT152	20.000	1	100.0	0.0								
B_LMT1_GMT153	0.400	1	100.0	0.0	0.027	0.016	0.007	0.004				
B_LMT1_GMT154	20.000	1	100.0	0.0								
B_LMT1_GMT155	20.000	1	100.0	0.0								
B_LMT1_GMT156	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT1_GMT157	20.000	1	100.0	0.0								
B_LMT1_GMT162	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
B_LMT1_GMT163	20.000	1	100.0	0.0								
B_LMT1_GMT164	20.000	1	100.0	0.0								
B_LMT1_GMT165	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT1_GMT169	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT1_GMT170	20.000	1	100.0	0.0								
B_LMT1_GMT171	20.000	1	100.0	0.0								
B_LMT1_GMT179	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT1_GMT180	20.000	1	100.0	0.0								
B_LMT1_GMT181	20.000	1	100.0	0.0								
B_LMT1_GMT182	0.400	1	100.0	0.0	0.026	0.016	0.006	0.004				
B_LMT1_GMT183	20.000	1	100.0	0.0								
B_LMT1_GMT187	0.400	1	100.0	0.0	0.039	0.024	0.010	0.006				
B_LMT1_GMT188	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT189	20.000	1	100.0	0.0								
B_LMT1_GMT190	0.400	1	100.0	0.0	0.003	0.002						
B_LMT1_GMT191	20.000	1	100.0	0.0								
B_LMT1_GMT192	20.000	1	100.0	0.0								
B_LMT1_GMT193	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT1_GMT194	20.000	1	100.0	0.0								
B_LMT1_GMT195	20.000	1	100.0	0.0								
B_LMT1_GMT199	20.000	1	100.0	0.0								
B_LMT1_GMT200	0.400	1	100.0	0.0	0.037	0.023	0.009	0.006				
B_LMT1_GMT201	20.000	1	100.0	0.0								
B_LMT1_GMT202	20.000	1	100.0	0.0								
B_LMT1_GMT203	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
B_LMT1_GMT207	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT1_GMT208	20.000	1	100.0	0.0								
B_LMT1_GMT209	20.000	1	100.0	0.0								
B_LMT1_GMT213	0.400	1	100.0	0.0	0.047	0.029	0.012	0.007				
B_LMT1_GMT215	20.000	1	100.0	0.0								
B_LMT1_GMT218	0.400	1	100.0	0.0	0.042	0.026	0.011	0.007				
B_LMT1_GMT219	20.000	1	100.0	0.0								
B_LMT1_GMT223	0.400	1	100.0	0.0	0.029	0.018	0.007	0.005				
B_LMT1_GMT224	20.000	1	100.0	0.0								
B_LMT1_GMT225	20.000	1	100.0	0.0								
B_LMT1_GMT226	0.400	1	100.0	0.0	0.046	0.028	0.011	0.007				
B_LMT1_GMT227	20.000	1	100.0	0.0								
B_LMT1_GMT228	20.000	1	100.0	0.0								
B_LMT1_GMT235	0.400	1	100.0	0.0	0.033	0.021	0.008	0.005				
B_LMT1_GMT236	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT1_GMT237	20.000	1	100.0	0.0								
B_LMT1_GMT238	20.000	1	100.0	0.0								
B_LMT1_GMT243	0.400	1	100.0	0.0	0.045	0.028	0.011	0.007				
B_LMT1_GMT244	20.000	1	100.0	0.0								
B_LMT1_GMT245	20.000	1	100.0	0.0								
B_LMT1_GMT246	0.400	1	100.0	0.0	0.053	0.033	0.013	0.008				
B_LMT1_GMT250	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT1_GMT251	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT252	20.000	1	100.0	0.0								
B_LMT1_GMT253	0.400	1	100.0	0.0	0.003	0.002						
B_LMT1_GMT254	20.000	1	100.0	0.0								
B_LMT1_GMT255	20.000	1	100.0	0.0								
B_LMT2_1	20.000	1	100.0	0.0								
B_LMT2_GMT1	20.000	1	100.0	0.0								
B_LMT2_GMT2	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT2_GMT3	20.000	1	100.0	0.0								
B_LMT2_GMT6	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT2_GMT7	20.000	1	100.0	0.0								
B_LMT2_GMT10	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT11	20.000	1	100.0	0.0								
B_LMT2_GMT12	20.000	1	100.0	0.0								
B_LMT2_GMT16	20.000	1	100.0	0.0								
B_LMT2_GMT17	0.400	1	100.0	0.0	0.027	0.016	0.007	0.004				
B_LMT2_GMT18	20.000	1	100.0	0.0								
B_LMT2_GMT23	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT24	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT2_GMT25	20.000	1	100.0	0.0								
B_LMT2_GMT26	20.000	1	100.0	0.0								
B_LMT2_GMT27	0.400	1	100.0	0.0	0.029	0.018	0.007	0.005				
B_LMT2_GMT28	0.400	1	100.0	0.0	0.008	0.005	0.002	0.001				
B_LMT2_GMT29	20.000	1	100.0	0.0								
B_LMT2_GMT30	20.000	1	100.0	0.0								
B_LMT2_GMT33	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
B_LMT2_GMT34	20.000	1	100.0	0.0								
B_LMT2_GMT35	20.000	1	100.0	0.0								
B_LMT2_GMT39	20.000	1	100.0	0.0								
B_LMT2_GMT40	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT41	20.000	1	100.0	0.0								
B_LMT2_GMT44	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT2_GMT45	20.000	1	100.0	0.0								
B_LMT2_GMT46	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
B_LMT2_GMT47	20.000	1	100.0	0.0								
B_LMT2_GMT52	0.400	1	100.0	0.0	0.022	0.013	0.005	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT53	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT2_GMT54	20.000	1	100.0	0.0								
B_LMT2_GMT55	20.000	1	100.0	0.0								
B_LMT2_GMT59	20.000	1	100.0	0.0								
B_LMT2_GMT60	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT2_GMT61	20.000	1	100.0	0.0								
B_LMT2_GMT66	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT2_GMT67	20.000	1	100.0	0.0								
B_LMT2_GMT68	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT69	20.000	1	100.0	0.0								
B_LMT2_GMT70	20.000	1	100.0	0.0								
B_LMT2_GMT71	20.000	1	100.0	0.0								
B_LMT2_GMT75	20.000	1	100.0	0.0								
B_LMT2_GMT76	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT77	20.000	1	100.0	0.0								
B_LMT2_GMT81	20.000	1	100.0	0.0								
B_LMT2_GMT82	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT83	20.000	1	100.0	0.0								
B_LMT2_GMT90	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT91	20.000	1	100.0	0.0								
B_LMT2_GMT92	20.000	1	100.0	0.0								
B_LMT2_GMT93	20.000	1	100.0	0.0								
B_LMT2_GMT94	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT2_GMT95	20.000	1	100.0	0.0								
B_LMT2_GMT108	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
B_LMT2_GMT109	20.000	1	100.0	0.0								
B_LMT2_GMT110	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT111	20.000	1	100.0	0.0								
B_LMT2_GMT112	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT113	20.000	1	100.0	0.0								
B_LMT2_GMT114	20.000	1	100.0	0.0								
B_LMT2_GMT115	20.000	1	100.0	0.0								
B_LMT2_GMT116	20.000	1	100.0	0.0								
B_LMT2_GMT117	20.000	1	100.0	0.0								
B_LMT2_GMT118	0.400	1	100.0	0.0	0.003	0.002						

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT119	20.000	1	100.0	0.0								
B_LMT2_GMT123	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT124	20.000	1	100.0	0.0								
B_LMT2_GMT125	20.000	1	100.0	0.0								
B_LMT2_GMT130	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT131	20.000	1	100.0	0.0								
B_LMT2_GMT132	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_LMT2_GMT133	20.000	1	100.0	0.0								
B_LMT2_GMT145	20.000	1	100.0	0.0								
B_LMT2_GMT146	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
B_LMT2_GMT147	20.000	1	100.0	0.0								
B_LMT2_GMT152	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_LMT2_GMT153	20.000	1	100.0	0.0								
B_LMT2_GMT154	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_LMT2_GMT155	20.000	1	100.0	0.0								
B_LMT2_GMT158	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT159	20.000	1	100.0	0.0								
B_LMT2_GMT160	20.000	1	100.0	0.0								
B_LMT2_GMT161	20.000	1	100.0	0.0								
B_LMT2_GMT165	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_LMT2_GMT166	20.000	1	100.0	0.0								
B_LMT2_GMT167	20.000	1	100.0	0.0								
B_LMT2_GMT168	20.000	1	100.0	0.0								
B_LMT2_GMT175	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_LMT2_GMT176	20.000	1	100.0	0.0								
B_LMT2_GMT177	0.400	1	100.0	0.0	0.001	0.001						
B_LMT2_GMT178	20.000	1	100.0	0.0								
B_LMT2_GMT179	20.000	1	100.0	0.0								
B_LMT2_GMT180	20.000	1	100.0	0.0								
B_LMT2_GMT181	20.000	1	100.0	0.0								
B_LMT2_GMT188	0.400	1	100.0	0.0	0.007	0.005	0.002	0.001				
B_LMT2_GMT189	20.000	1	100.0	0.0								
B_LMT2_GMT190	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT191	20.000	1	100.0	0.0								
B_LMT2_GMT192	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT193	20.000	1	100.0	0.0								
B_LMT2_GMT194	0.400	1	100.0	0.0								
B_LMT2_GMT195	20.000	1	100.0	0.0								
B_LMT2_GMT196	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT197	20.000	1	100.0	0.0								
B_LMT2_GMT198	20.000	1	100.0	0.0								
B_LMT2_GMT199	20.000	1	100.0	0.0								
B_LMT2_GMT203	0.400	1	100.0	0.0	0.027	0.016	0.007	0.004				
B_LMT2_GMT204	20.000	1	100.0	0.0								
B_LMT2_GMT205	20.000	1	100.0	0.0								
B_LMT2_GMT206	0.400	1	100.0	0.0	0.019	0.012	0.005	0.003				
B_LMT2_GMT207	20.000	1	100.0	0.0								
B_LMT2_GMT208	20.000	1	100.0	0.0								
B_LMT2_GMT215	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT2_GMT216	20.000	1	100.0	0.0								
B_LMT2_GMT217	20.000	1	100.0	0.0								
B_LMT2_GMT218	20.000	1	100.0	0.0								
B_LMT2_GMT219	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
B_LMT2_GMT220	20.000	1	100.0	0.0								
B_LMT2_GMT221	20.000	1	100.0	0.0								
B_LMT2_GMT228	0.400	1	100.0	0.0	0.019	0.012	0.005	0.003				
B_LMT2_GMT229	20.000	1	100.0	0.0								
B_LMT2_GMT230	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT231	20.000	1	100.0	0.0								
B_LMT2_GMT232	20.000	1	100.0	0.0								
B_LMT2_GMT233	20.000	1	100.0	0.0								
B_LMT2_GMT243	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT244	20.000	1	100.0	0.0								
B_LMT2_GMT245	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT2_GMT246	20.000	1	100.0	0.0								
B_LMT2_GMT247	0.400	1	100.0	0.0	0.001	0.001						
B_LMT2_GMT248	20.000	1	100.0	0.0								
B_LMT2_GMT249	20.000	1	100.0	0.0								
B_LMT2_GMT250	20.000	1	100.0	0.0								
B_LMT2_GMT251	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT258	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_LMT2_GMT259	20.000	1	100.0	0.0								
B_LMT2_GMT260	0.400	1	100.0	0.0	0.001	0.001						
B_LMT2_GMT261	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT262	20.000	1	100.0	0.0								
B_LMT2_GMT263	20.000	1	100.0	0.0								
B_MR3	20.000	1	100.0	0.0								
B_MR04_GM	20.000	1	100.0	0.0								
B_MR04_GM1	20.000	1	100.0	0.0								
B_MR04_GM_1	0.400	1	100.0	0.0	0.025	0.015	0.006	0.004				
B_MR04_GM2	20.000	1	100.0	0.0								
B_MR04_GM_2	0.400	1	100.0	0.0	1.428	0.885	0.357	0.221				
B_MR04_GM3	20.000	1	100.0	0.0								
B_MR04_GM_3	0.400	1	100.0	0.0	0.030	0.019	0.008	0.005				
B_MR04_GM4	20.000	1	100.0	0.0								
B_MR04_GM_4	0.400	1	100.0	0.0	0.009	0.006	0.002	0.001				
B_MR04_GM5	20.000	1	100.0	0.0								
B_MR04_GM_5	0.400	1	100.0	0.0	0.010	0.006	0.002	0.002				
B_MR04_GM6	20.000	1	100.0	0.0								
B_MR04_GM_6	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_MR04_GM7	20.000	1	100.0	0.0								
B_MR04_GM_7	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_MR04_GM8	20.000	1	100.0	0.0								
B_MR04_GM_8	0.400	1	100.0	0.0								
B_MR04_GM9	20.000	1	100.0	0.0								
B_MR04_GM_9	0.400	1	100.0	0.0	0.062	0.038	0.015	0.010				
B_MR04_GM10	20.000	1	100.0	0.0								
B_MR04_GM_10	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR04_GM11	20.000	1	100.0	0.0								
B_MR04_GM_11	0.400	1	100.0	0.0	0.046	0.029	0.012	0.007				
B_MR04_GM12	20.000	1	100.0	0.0								
B_MR04_GM_12	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR04_GM13	20.000	1	100.0	0.0								
B_MR04_GM_13	0.400	1	100.0	0.0	0.079	0.049	0.020	0.012				
B_MR04_GM14	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR04_GM_14	0.400	1	100.0	0.0	0.058	0.036	0.014	0.009				
B_MR04_GM15	20.000	1	100.0	0.0								
B_MR04_GM_15	0.400	1	100.0	0.0	0.045	0.028	0.011	0.007				
B_MR04_GM16	20.000	1	100.0	0.0								
B_MR04_GM_16	0.400	1	100.0	0.0	0.004	0.002						
B_MR04_GM17	20.000	1	100.0	0.0								
B_MR04_GM_17	0.400	1	100.0	0.0	0.028	0.017	0.007	0.004				
B_MR04_GM18	20.000	1	100.0	0.0								
B_MR04_GM_18	0.400	1	100.0	0.0	0.014	0.009	0.003	0.002				
B_MR04_GM19	20.000	1	100.0	0.0								
B_MR04_GM_19	0.400	1	100.0	0.0	0.077	0.048	0.019	0.012				
B_MR04_GM20	20.000	1	100.0	0.0								
B_MR04_GM_20	0.400	1	100.0	0.0	0.051	0.031	0.013	0.008				
B_MR04_GM21	20.000	1	100.0	0.0								
B_MR04_GM_21	0.400	1	100.0	0.0	0.040	0.025	0.010	0.006				
B_MR04_GM22	20.000	1	100.0	0.0								
B_MR04_GM_22	0.400	1	100.0	0.0	0.017	0.010	0.004	0.003				
B_MR04_GM23	20.000	1	100.0	0.0								
B_MR04_GM_23	0.400	1	100.0	0.0	0.048	0.030	0.012	0.007				
B_MR04_GM24	20.000	1	100.0	0.0								
B_MR04_GM_24	0.400	1	100.0	0.0	0.041	0.026	0.010	0.006				
B_MR04_GM25	20.000	1	100.0	0.0								
B_MR04_GM_25	0.400	1	100.0	0.0	0.031	0.019	0.008	0.005				
B_MR04_GM26	20.000	1	100.0	0.0								
B_MR04_GM_26	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR04_GM27	20.000	1	100.0	0.0								
B_MR04_GM_27	0.400	1	100.0	0.0	0.059	0.037	0.015	0.009				
B_MR04_GM28	20.000	1	100.0	0.0								
B_MR04_GM_28	0.400	1	100.0	0.0	0.017	0.010	0.004	0.003				
B_MR04_GM29	20.000	1	100.0	0.0								
B_MR04_GM_29	0.400	1	100.0	0.0	0.026	0.016	0.006	0.004				
B_MR04_GM30	20.000	1	100.0	0.0								
B_MR04_GM_30	0.400	1	100.0	0.0	0.053	0.033	0.013	0.008				
B_MR04_GM31	20.000	1	100.0	0.0								
B_MR04_GM_31	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR04_GM32	20.000	1	100.0	0.0								
B_MR04_GM_32	0.400	1	100.0	0.0	0.003	0.002						
B_MR04_GM33	20.000	1	100.0	0.0								
B_MR04_GM_33	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR04_GM34	20.000	1	100.0	0.0								
B_MR04_GM_34	0.400	1	100.0	0.0	0.055	0.034	0.014	0.009				
B_MR04_GM35	20.000	1	100.0	0.0								
B_MR04_GM_35	0.400	1	100.0	0.0	0.065	0.041	0.016	0.010				
B_MR04_GM36	20.000	1	100.0	0.0								
B_MR04_GM_36	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_MR04_GM37	20.000	1	100.0	0.0								
B_MR04_GM_37	0.400	1	100.0	0.0	0.018	0.011	0.005	0.003				
B_MR04_GM38	20.000	1	100.0	0.0								
B_MR04_GM_38	0.400	1	100.0	0.0	0.043	0.026	0.011	0.007				
B_MR04_GM39	20.000	1	100.0	0.0								
B_MR04_GM_39	0.400	1	100.0	0.0	0.040	0.024	0.010	0.006				
B_MR04_GM40	20.000	1	100.0	0.0								
B_MR04_GM_40	0.400	1	100.0	0.0	0.043	0.027	0.011	0.007				
B_MR04_GM41	20.000	1	100.0	0.0								
B_MR04_GM_41	0.400	1	100.0	0.0	0.048	0.029	0.012	0.007				
B_MR04_GM42	20.000	1	100.0	0.0								
B_MR04_GM_42	0.400	1	100.0	0.0	0.014	0.009	0.003	0.002				
B_MR04_GM43	20.000	1	100.0	0.0								
B_MR04_GM_43	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_MR04_GM44	20.000	1	100.0	0.0								
B_MR04_GM_44	0.400	1	100.0	0.0	0.056	0.035	0.014	0.009				
B_MR04_GM45	20.000	1	100.0	0.0								
B_MR04_GM_45	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR04_GM46	20.000	1	100.0	0.0								
B_MR04_GM_46	0.400	1	100.0	0.0	0.035	0.022	0.009	0.005				
B_MR04_GM47	20.000	1	100.0	0.0								
B_MR04_GM_47	0.400	1	100.0	0.0	0.041	0.025	0.010	0.006				
B_MR04_GM48	20.000	1	100.0	0.0								
B_MR04_GM_48	0.400	1	100.0	0.0	0.030	0.019	0.007	0.005				
B_MR04_GM49	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR04_GM_49	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
B_MR6_GMP1	20.000	1	100.0	0.0								
B_MR6_GMP2	20.000	1	100.0	0.0								
B_MR6_GMP3	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR6_GMP4	20.000	1	100.0	0.0								
B_MR6_GMP6	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP7	20.000	1	100.0	0.0								
B_MR6_GMP10	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
B_MR6_GMP11	20.000	1	100.0	0.0								
B_MR6_GMP12	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
B_MR6_GMP13	20.000	1	100.0	0.0								
B_MR6_GMP14	0.400	1	100.0	0.0	0.033	0.021	0.008	0.005				
B_MR6_GMP15	20.000	1	100.0	0.0								
B_MR6_GMP16	20.000	1	100.0	0.0								
B_MR6_GMP19	20.000	1	100.0	0.0								
B_MR6_GMP20	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_MR6_GMP21	20.000	1	100.0	0.0								
B_MR6_GMP24	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
B_MR6_GMP25	20.000	1	100.0	0.0								
B_MR6_GMP26	20.000	1	100.0	0.0								
B_MR6_GMP30	20.000	1	100.0	0.0								
B_MR6_GMP31	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_MR6_GMP32	20.000	1	100.0	0.0								
B_MR6_GMP35	0.400	1	100.0	0.0	0.097	0.060	0.024	0.015				
B_MR6_GMP36	20.000	1	100.0	0.0								
B_MR6_GMP37	20.000	1	100.0	0.0								
B_MR6_GMP42	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_MR6_GMP43	0.400	1	100.0	0.0	0.008	0.005	0.002	0.001				
B_MR6_GMP44	20.000	1	100.0	0.0								
B_MR6_GMP45	20.000	1	100.0	0.0								
B_MR6_GMP46	20.000	1	100.0	0.0								
B_MR6_GMP51	0.400	1	100.0	0.0	0.016	0.010	0.004	0.002				
B_MR6_GMP52	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMP53	20.000	1	100.0	0.0								
B_MR6_GMP54	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR6_GMP55	20.000	1	100.0	0.0								
B_MR6_GMP58	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_MR6_GMP59	20.000	1	100.0	0.0								
B_MR6_GMP62	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
B_MR6_GMP63	20.000	1	100.0	0.0								
B_MR6_GMP64	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP65	20.000	1	100.0	0.0								
B_MR6_GMP66	20.000	1	100.0	0.0								
B_MR6_GMP69	0.400	1	100.0	0.0	0.041	0.026	0.010	0.006				
B_MR6_GMP70	20.000	1	100.0	0.0								
B_MR6_GMP71	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_MR6_GMP72	20.000	1	100.0	0.0								
B_MR6_GMP73	20.000	1	100.0	0.0								
B_MR6_GMP76	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_MR6_GMP77	20.000	1	100.0	0.0								
B_MR6_GMP78	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP79	20.000	1	100.0	0.0								
B_MR6_GMP80	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP81	20.000	1	100.0	0.0								
B_MR6_GMP82	20.000	1	100.0	0.0								
B_MR6_GMT1	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_MR6_GMT2	20.000	1	100.0	0.0								
B_MR6_GMT3	20.000	1	100.0	0.0								
B_MR6_GMT7	20.000	1	100.0	0.0								
B_MR6_GMT8	0.400	1	100.0	0.0	0.001	0.001						
B_MR6_GMT9	20.000	1	100.0	0.0								
B_MR6_GMT13	20.000	1	100.0	0.0								
B_MR6_GMT14	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_MR6_GMT18	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_MR6_GMT19	20.000	1	100.0	0.0								
B_MR6_GMT20	0.400	1	100.0	0.0	0.002	0.001						
B_MR6_GMT21	20.000	1	100.0	0.0								
B_MR6_GMT25	20.000	1	100.0	0.0								
B_MR6_GMT26	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMT27	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR6_GMT30	20.000	1	100.0	0.0								
B_MR6_GMT31	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMT35	20.000	1	100.0	0.0								
B_MR6_GMT36	0.400	1	100.0	0.0	0.018	0.011	0.005	0.003				
B_MR6_GMT37	20.000	1	100.0	0.0								
B_MR6_GMT38	20.000	1	100.0	0.0								
B_MR6_GMT44	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_MR6_GMT45	0.400	1	100.0	0.0	0.018	0.011	0.004	0.003				
B_MR6_GMT47	20.000	1	100.0	0.0								
B_MR6_GMT48	20.000	1	100.0	0.0								
B_MR6_GMT52	20.000	1	100.0	0.0								
B_MR6_GMT53	0.400	1	100.0	0.0	0.022	0.014	0.006	0.003				
B_MR6_GMT54	20.000	1	100.0	0.0								
B_MR6_GMT55	20.000	1	100.0	0.0								
B_MR6_GMT58	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR6_GMT59	20.000	1	100.0	0.0								
B_MR6_GMT60	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
B_MR6_GMT61	20.000	1	100.0	0.0								
B_MR6_GMT62	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMT63	20.000	1	100.0	0.0								
B_MR6_GMT64	0.400	1	100.0	0.0	0.007	0.005	0.002	0.001				
B_MR6_GMT65	20.000	1	100.0	0.0								
B_MR6_GMT70	0.400	1	100.0	0.0	0.014	0.009	0.004	0.002				
B_MR6_GMT71	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
B_MR6_GMT72	20.000	1	100.0	0.0								
B_MR6_GMT73	20.000	1	100.0	0.0								
B_MR6_GMT74	0.400	1	100.0	0.0	0.022	0.013	0.005	0.003				
B_MR6_GMT75	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMT76	20.000	1	100.0	0.0								
B_MR6_GMT77	20.000	1	100.0	0.0								
B_MR6_GMT80	0.400	1	100.0	0.0	0.040	0.025	0.010	0.006				
B_MR6_GMT81	20.000	1	100.0	0.0								
B_MR6_GMT82	0.400	1	100.0	0.0	0.002	0.001						
B_MR6_GMT83	20.000	1	100.0	0.0								
B_MR6_GMT84	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR6_GMT87	0.400	1	100.0	0.0	0.035	0.022	0.009	0.005				
B_MR6_GMT88	20.000	1	100.0	0.0								
B_MR6_GMT91	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR6_GMT92	20.000	1	100.0	0.0								
B_MR6_GMT96	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
B_MR6_GMT97	20.000	1	100.0	0.0								
B_MR6_GMT98	20.000	1	100.0	0.0								
B_MR6_GMT99	20.000	1	100.0	0.0								
B_MR6_GMT102	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR6_GMT103	20.000	1	100.0	0.0								
B_MR6_GMT109	0.400	1	100.0	0.0	0.002	0.001						
B_MR6_GMT110	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMT111	20.000	1	100.0	0.0								
B_MR6_GMT112	20.000	1	100.0	0.0								
B_MR6_GMT113	20.000	1	100.0	0.0								
B_MR6_GMT116	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_MR6_GMT117	20.000	1	100.0	0.0								
B_MR6_GMT123	0.400	1	100.0	0.0								
B_MR6_GMT124	20.000	1	100.0	0.0								
B_MR6_GMT125	20.000	1	100.0	0.0								
B_MR6_GMT126	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR6_GMT127	20.000	1	100.0	0.0								
B_MR6_GMT128	20.000	1	100.0	0.0								
B_MR6_GMT130	20.000	1	100.0	0.0								
B_PLTD_TILAMUTA	6.300	2	100.0	0.0								
GH LEMITO	20.000	1	100.0	0.0								
GH MARISA	20.000	1	100.0	0.0								
GH MARISA1	20.000	1	100.0	0.0								
GH TILAMUTA	20.000	1	100.0	0.0								
GI MARISA	20.000	1	100.0	0.0								
LM1 V UJUNG	20.000	1	100.0	0.0								
LM3 V UJUNG	20.000	1	100.0	0.0								
LM4 V UJUNG	20.000	1	100.0	0.0								
LMT1 V UJUNG	20.000	1	100.0	0.0								
LMT2 V UJUNG	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
LO1 V UJUNG	20.000	1	100.0	0.0								
LO2 V UJUNG	20.000	1	100.0	0.0								
MR1 V UJUNG	20.000	1	100.0	0.0								
MR6 V UJUNG	20.000	1	100.0	0.0								
MR6 V UJUNG2	20.000	1	100.0	0.0								
LM.2~	20.000		100.0	0.0								
Total Number of Buses: 1054					11.284	6.993	2.821	1.748	0.000	0.000	0.000	0.000

Generation Bus				Voltage		Generation			Mvar Limits	
ID	kV	Type	Sub-sys	% Mag.	Angle	MW	Mvar	% PF	Max	Min
B_GI_MARISA	150.000	Swing	1	100.0	0.0					
B_PLTD_TILAMUTA	6.300	Swing	2	100.0	0.0					
						0.000	0.000			

Line/Cable/Busway Input Data

ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)

Line/Cable/Busway ID	Library	Size	Length Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
INC LM3	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
INC_MR.6	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.3	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.4	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.5	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LMT.1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LMT.2	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LO_1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
MR.1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
MR.3	20OALN1	70	11000.0	0.0	1	75	0.505294	0.340600	
MR.4	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
MR.6	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.2	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
L_AG2_3		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_43		93.3	700.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_55		93.3	2000.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_58		93.3	600.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_62		93.3	700.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_65		75.6	1000.0	0.0	1	75	0.524588	0.382172	0.0000034
L_AG2_66		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_68		93.3	700.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_74		147.	500.0	0.0	1	75	0.269543	0.382172	0.0000036
L_AG2_77		93,3	400.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LM1_GM_1		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_3		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_4		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_5		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_6		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_7		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_8		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_9		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_10		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_12		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_13		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_16		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_17		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_18		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_19		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_20		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_21		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_22		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_23		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_29		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_30		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_31		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_32		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_33		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_35		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_37		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_38		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_39		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_40		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_41		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_42		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_43		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_45		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_46		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_47		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_48		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_49		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_50		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_55		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_56		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_57		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_61		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_62		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_63		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_67		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_68		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_69		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_73		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_74		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_75		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_76		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_77		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_78		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_79		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_80		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_81		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_83		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_93		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_95		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_96		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_97		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_98		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_99		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_100		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_102		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_110		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_111		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_112		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_113		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_114		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_115		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_116		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_124		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_125		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_126		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_127		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_128		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_129		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_130		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_133		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_134		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_135		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_136		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_137		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_138		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_139		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_140		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_143		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_144		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_150		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_151		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_152		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_153		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_154		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_160		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_161		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_162		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_163		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_164		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_166		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_168		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_169		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_172		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_174		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_175		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_176		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_177		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_178		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_179		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_181		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_183		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_185		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_187		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_189		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_190		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_191		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_192		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_194		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_196		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_197		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_198		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_203		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_204		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_205		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_206		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_208		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_210		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_211		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_212		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_213		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_214		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_215		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_217		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_219		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_220		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_221		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_222		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_223		157.	1000.0	0.0	1	75	0.251600	0.359566	0.0000037
L_LM1_GM_224		157.	1000.0	0.0	1	75	0.251600	0.359566	0.0000037
L_LM1_GM_225		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_226		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_229		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_230		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_231		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_232		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_233		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_234		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_235		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_236		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_237		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_238		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_241		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_246		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_247		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_248		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_251		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_252		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_257		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_258		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_259		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_260		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_263		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_264		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_267		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_268		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_270		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_272		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_275		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_276		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_277		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_278		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_279		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_280		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_282		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_286		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_287		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_288		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_292		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_293		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_294		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_296		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_300		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_301		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_302		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_305		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_306		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_309		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_310		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_315		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_316		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_317		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_318		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_323		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_324		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_325		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_326		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_331		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_332		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_333		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_334		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_339		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_340		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_341		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_342		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_351		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_352		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_353		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_354		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_355		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_356		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_357		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_359		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_360		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_361		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_365		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_366		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_367		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_372		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_373		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_374		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_376		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_379		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_380		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_381		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_382		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LMT1_GMT1		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT1_GMT2		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT5		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT6		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT11		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT12		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT13		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT14		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT18		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT19		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT22		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT23		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT25		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT26		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT32		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT33		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT37		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT38		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT39		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT42		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT43		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT44		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT48		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT49		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT50		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT53		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT54		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT57		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT58		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT62		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT63		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT64		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT65		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT68		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT69		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)						
			Length						
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT1_GMT70		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT71		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT75		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT76		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT77		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT80		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT81		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT82		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT83		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT88		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT89		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT90		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT91		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT94		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT95		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT99		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT100		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT101		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT102		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT105		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT106		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT109		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT110		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT116		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT117		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT118		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT121		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT122		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT123		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT124		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT125		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT126		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT130		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT131		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT132		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT135		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT1_GMT136		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT140		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT142		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT145		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT146		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT147		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT148		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT152		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT153		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT156		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT157		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT160		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT161		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT162		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT163		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT1		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT2		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT4		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT6		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT7		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT10		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT11		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT14		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT15		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT16		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT17		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT18		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT20		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT23		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT26		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT27		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT31		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT34		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT35		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT2_GMT38		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT39		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT40		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT41		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT44		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT45		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT48		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT49		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT54		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT55		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT56		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT57		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT66		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT67		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT68		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT69		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT70		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT71		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT72		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT73		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT76		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT77		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT80		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT81		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT88		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT89		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT92		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT93		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT95		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT96		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT97		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT98		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT101		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT102		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT107		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT108		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT2_GMT109		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT110		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT111		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT116		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT117		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT118		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT119		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT120		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT121		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT122		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT123		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT126		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT127		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT128		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT129		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT134		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT135		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT136		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT137		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT139		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT144		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT145		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT146		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT147		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT154		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT155		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT156		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT157		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT158		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT159		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT163		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT164		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT165		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LY02_01-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_2-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_3-3		157.	500.0	0.0	1	75	0.251546	0.359489	0.0000037

			ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)						
Line/Cable/Busway			Length						
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LY02_4-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_6-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_8-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_9-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_11-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_12-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_14-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_15-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_16-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_18-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_19-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_21-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_23-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_24-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_26-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_27-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_29-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_30-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_32-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_33-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_35-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_37-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_38-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_40-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_41-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_43-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_44-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_45-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_47-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_48-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_50-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_51-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_53-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_54-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_56-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_57-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035

Line/Cable/Busway			Length			ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)			
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LY02_59-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_60-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_62-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_63-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_65-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_66-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_68-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_69-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_71-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_72-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR1_GMP_1		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_3		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_4		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_5		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_6		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_7		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_8		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_9		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_10		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_11		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_12		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_13		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_14		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_15		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_16		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_17		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_18		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_19		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_21		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_22		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_23		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_24		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_25		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_26		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_27		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_MR1_GMP_28		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_MR1_GMP_29		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_30		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_31		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_32		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_34		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_35		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_36		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_37		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_38		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_39		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_41		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_43		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_45		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR6_GMP1		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP2		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP4		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP5		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP6		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP7		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP9		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP10		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP12		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP13		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP16		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP17		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP19		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP20		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP21		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP25		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP26		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP29		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP32		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP33		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP35		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)						
			Length						
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_MR6_GMP36		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP38		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP39		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP40		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP42		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP43		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP44		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP45		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMT1		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT2		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT5		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT6		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT9		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT12		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT13		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT16		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT17		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT19		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT22		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT23		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT29		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT31		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT34		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT35		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT37		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT38		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT39		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT40		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT43		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT44		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT45		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT46		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT48		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT49		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)						
			Length						
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_MR6_GMT50		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT52		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT54		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT57		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT58		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT59		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT61		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT65		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT66		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT67		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT69		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT70		75.6	300.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT74		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT75		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT76		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT77		75.6	3000.0	0.0	1	75	0.524588	0.382172	0.0000034

Line / Cable / Busway resistances are listed at the specified temperatures.

2-Winding Transformer Input Data

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
GI.MARISA	3-Phase	30.000	150.000	20.000	12.50	45.00	0	0	0	0	8.000	12.5000	Dyn	0.000
G_LM1_GM_50	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_51	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_52	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_53	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_54	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_55	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_56	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_57	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_58	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_59	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_60	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_61	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_62	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_63	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_64	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_65	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_66	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_67	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_68	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_69	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_70	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_71	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_72	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_73	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_74	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_75	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_76	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_77	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_78	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_79	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_80	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_81	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_82	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_83	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_84	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_85	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_86	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM1_GM_87	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_88	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_89	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_155	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_156	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_157	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_158	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_159	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_160	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_161	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_162	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_163	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_164	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_165	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_166	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_167	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_168	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_169	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_170	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_171	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_172	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_173	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_174	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_175	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_176	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_177	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_178	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_106	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_107	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_108	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_109	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_110	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_111	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_112	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_113	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_114	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_115	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_116	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_117	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_118	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GMI_119	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_120	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_121	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_122	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_123	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_124	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_125	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_126	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_127	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_128	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_129	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_130	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_131	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_132	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_133	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_134	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_135	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_136	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_137	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_138	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_139	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_140	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_141	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_142	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_143	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_144	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_145	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_146	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_147	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_148	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_149	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_150	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_151	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_152	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_153	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_154	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_179	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_180	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_181	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_182	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GML_183	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_184	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_185	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_186	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_187	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_188	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_189	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_190	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_191	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_192	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_193	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_194	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_195	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_196	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_197	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_198	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_199	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_200	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_201	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_202	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_203	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_204	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_205	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_206	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_207	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_208	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_209	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_210	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_211	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_212	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_213	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_214	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_215	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_216	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_217	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_218	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_219	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_220	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_221	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_222	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GML_223	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_224	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_225	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_226	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_227	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_228	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_229	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_230	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_231	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_232	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_233	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_234	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_235	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_236	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_237	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_238	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_239	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_240	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_241	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_242	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_243	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_244	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_245	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_246	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_247	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_248	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_249	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_250	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_251	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_252	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_253	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_254	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_255	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_256	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_257	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_258	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_259	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_260	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_261	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_262	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GML_263	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_264	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_265	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_266	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_267	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_90	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_91	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_92	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_93	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_94	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_95	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_96	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_97	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_98	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_99	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_100	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_101	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_102	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_103	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_104	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_105	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT031	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT032	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT033	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT034	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT035	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT036	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT038	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT039	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT040	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT041	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT042	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT043	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT044	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT045	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT046	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT047	3-Phase	0.200	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT048	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT049	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT050	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LMT1_GMT051	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT052	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT053	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT054	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT055	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT056	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT057	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT058	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT059	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT060	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT061	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT062	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT063	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT064	3-Phase	0.250	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT065	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT066	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT067	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT068	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT069	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT070	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT071	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT072	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT073	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT074	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT075	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT076	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT077	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT079	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT080	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT081	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT123	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT132	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT081	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT082	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT083	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT084	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT085	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT086	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT087	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT088	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LMT2_GMT089	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT090	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT091	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT092	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT093	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT094	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT095	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT096	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT097	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT098	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT099	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT100	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT101	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT102	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT103	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT104	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT105	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT106	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT107	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT108	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT109	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT110	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT111	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT112	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT113	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT114	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT116	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT117	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT118	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT119	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT120	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT121	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT122	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT123	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT124	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT125	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT126	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT127	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT128	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT129	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LMT2_GMT130	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT131	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT135	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_1	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_2_	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_3	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_4	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_5	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_6	3-Phase	0.200	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_7	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_8	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_9	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_10	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_11	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_12	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_13	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_14	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_15	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_16	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_17	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_18	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_19	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_20_	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_21	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_22	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_23	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_24	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_25	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_26	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_27	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_28	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_29	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_30	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_31	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_32	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_33_	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_34	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_35	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_36	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_37	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_MR1_GMP_38	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_39	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM02	3-Phase	3.000	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM03	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM04	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM05	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM06	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM07	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM08	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM09	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM10	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM11	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM12	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM13	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM14	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM15	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM16	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM17	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM18	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM19	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM20	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM21	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM22	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM23	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM24	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM25	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM26	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM27	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM28	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM29	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM30	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM31	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM32	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM33	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM34	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM35	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM36	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM37	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM38	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM39	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_MR4_GM40	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM41	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM42	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM43	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM44	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM45	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM46	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM47	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM48	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM49	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GMP01	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP040	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP041	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP042	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP043	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP044	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP045	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP046	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP047	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP048	3-Phase	0.200	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP049	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP050	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP051	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP052	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP053	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP054	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP055	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP056	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP057	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP058	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP059	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP060	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP061	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT001	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT002	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT003	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT004	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT005	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT006	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT007	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_MR6_GMT008	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT009	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT010	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT011	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT012	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT013	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT015	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT016	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT017	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT018	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT020	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT021	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT022	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT023	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT024	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT025	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT026	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT027	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT028	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT029	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT030	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT134	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Branch Connections

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
GI.MARISA	2W XFMR	B_GI_MARISA	GI MARISA	1.00	44.99	45.00	
G_LM1_GM_50	2W XFMR	Bus_LM1_3	Bus_LM1_2	2218.80	3328.20	4000.00	
G_LM1_GM_51	2W XFMR	Bus_LM1_7	Bus_LM1_6	8875.20	13312.80	16000.00	
G_LM1_GM_52	2W XFMR	Bus_LM1_9	Bus_LM1_8	2218.80	3328.20	4000.00	
G_LM1_GM_53	2W XFMR	Bus_LM1_11	Bus_LM1_10	2218.80	3328.20	4000.00	
G_LM1_GM_54	2W XFMR	Bus_LM1_13	Bus_LM1_12	4437.60	6656.40	8000.00	
G_LM1_GM_55	2W XFMR	Bus_LM1_15	Bus_LM1_14	2218.80	3328.20	4000.00	
G_LM1_GM_56	2W XFMR	Bus_LM1_17	Bus_LM1_16	4437.60	6656.40	8000.00	
G_LM1_GM_57	2W XFMR	Bus_LM1_19	Bus_LM1_18	4437.60	6656.40	8000.00	
G_LM1_GM_58	2W XFMR	Bus_LM1_21	Bus_LM1_20	8875.20	13312.80	16000.00	
G_LM1_GM_59	2W XFMR	Bus_LM1_25	Bus_LM1_26	4437.60	6656.40	8000.00	
G_LM1_GM_60	2W XFMR	Bus_LM1_31	Bus_LM1_32	4437.60	6656.40	8000.00	
G_LM1_GM_61	2W XFMR	Bus_LM1_37	Bus_LM1_38	4437.60	6656.40	8000.00	
G_LM1_GM_62	2W XFMR	Bus_LM1_39	Bus_LM1_40	4437.60	6656.40	8000.00	
G_LM1_GM_63	2W XFMR	Bus_LM1_35	Bus_LM1_36	4437.60	6656.40	8000.00	
G_LM1_GM_64	2W XFMR	Bus_LM1_33	Bus_LM1_34	4437.60	6656.40	8000.00	
G_LM1_GM_65	2W XFMR	Bus_LM1_42	Bus_LM1_43	8875.20	13312.80	16000.00	
G_LM1_GM_66	2W XFMR	Bus_LM1_44	Bus_LM1_45	1386.75	2080.13	2500.00	
G_LM1_GM_67	2W XFMR	Bus_LM1_46	Bus_LM1_47	4437.60	6656.40	8000.00	
G_LM1_GM_68	2W XFMR	Bus_LM1_59	Bus_LM1_58	8875.20	13312.80	16000.00	
G_LM1_GM_69	2W XFMR	Bus_LM1_66	Bus_LM1_67	2218.80	3328.20	4000.00	
G_LM1_GM_70	2W XFMR	Bus_LM1_65	Bus_LM1_60	8875.20	13312.80	16000.00	
G_LM1_GM_71	2W XFMR	Bus_LM1_64	Bus_LM1_61	4437.60	6656.40	8000.00	
G_LM1_GM_72	2W XFMR	Bus_LM1_63	Bus_LM1_62	4437.60	6656.40	8000.00	
G_LM1_GM_73	2W XFMR	Bus_LM1_70	Bus_LM1_71	2218.80	3328.20	4000.00	
G_LM1_GM_74	2W XFMR	Bus_LM1_74	Bus_LM1_75	4437.60	6656.40	8000.00	
G_LM1_GM_75	2W XFMR	Bus_LM1_76	Bus_LM1_77	2218.80	3328.20	4000.00	
G_LM1_GM_76	2W XFMR	Bus_LM1_78	Bus_LM1_79	4437.60	6656.40	8000.00	
G_LM1_GM_77	2W XFMR	Bus_LM1_80	Bus_LM1_81	2218.80	3328.20	4000.00	
G_LM1_GM_78	2W XFMR	Bus_LM1_82	Bus_LM1_83	2218.80	3328.20	4000.00	
G_LM1_GM_79	2W XFMR	Bus_LM1_84	Bus_LM1_85	2218.80	3328.20	4000.00	
G_LM1_GM_80	2W XFMR	Bus_LM1_86	Bus_LM1_87	4437.60	6656.40	8000.00	
G_LM1_GM_81	2W XFMR	Bus_LM1_91	Bus_LM1_92	4437.60	6656.40	8000.00	
G_LM1_GM_82	2W XFMR	Bus_LM1_93	Bus_LM1_94	4437.60	6656.40	8000.00	
G_LM1_GM_83	2W XFMR	Bus_LM1_97	Bus_LM1_98	4437.60	6656.40	8000.00	
G_LM1_GM_84	2W XFMR	Bus_LM1_95	Bus_LM1_96	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM1_GM_85	2W XFMR	Bus_LM1_99	Bus_LM1_100	4437.60	6656.40	8000.00	
G_LM1_GM_86	2W XFMR	Bus_LM1_101	Bus_LM1_102	4437.60	6656.40	8000.00	
G_LM1_GM_87	2W XFMR	Bus_LM1_115	Bus_LM1_116	8875.20	13312.80	16000.00	
G_LM1_GM_88	2W XFMR	Bus_LM1_114	Bus_LM1_111	4437.60	6656.40	8000.00	
G_LM1_GM_89	2W XFMR	Bus_LM1_113	Bus_LM1_112	4437.60	6656.40	8000.00	
G_LM3_GMC_155	2W XFMR	Bus_LM3_140	Bus_LM3_141	8875.20	13312.80	16000.00	
G_LM3_GMC_156	2W XFMR	Bus_LM3_144	Bus_LM3_145	4437.60	6656.40	8000.00	
G_LM3_GMC_157	2W XFMR	Bus_LM3_146	Bus_LM3_147	2218.80	3328.20	4000.00	
G_LM3_GMC_158	2W XFMR	Bus_LM1_189	Bus_LM3_153	8875.20	13312.80	16000.00	
G_LM3_GMC_159	2W XFMR	Bus_LM1_190	Bus_LM3_159	14792.01	22188.01	26666.67	
G_LM3_GMC_160	2W XFMR	Bus_LM3_170	Bus_LM3_171	4437.60	6656.40	8000.00	
G_LM3_GMC_161	2W XFMR	Bus_LM3_160	Bus_LM3_161	4437.60	6656.40	8000.00	
G_LM3_GMC_162	2W XFMR	Bus_LM3_162	Bus_LM3_163	4437.60	6656.40	8000.00	
G_LM3_GMC_163	2W XFMR	Bus_LM3_164	Bus_LM3_165	4437.60	6656.40	8000.00	
G_LM3_GMC_164	2W XFMR	Bus_LM3_166	Bus_LM3_167	4437.60	6656.40	8000.00	
G_LM3_GMC_165	2W XFMR	Bus_LM3_156	Bus_LM3_157	4437.60	6656.40	8000.00	
G_LM3_GMC_166	2W XFMR	Bus_LM1_193	Bus_LM3_173	4437.60	6656.40	8000.00	
G_LM3_GMC_167	2W XFMR	Bus_LM1_195	Bus_LM3_175	8875.20	13312.80	16000.00	
G_LM3_GMC_168	2W XFMR	Bus_LM1_196	Bus_LM3_176	4437.60	6656.40	8000.00	
G_LM3_GMC_169	2W XFMR	Bus_LM1_197	Bus_LM3_177	2218.80	3328.20	4000.00	
G_LM3_GMC_170	2W XFMR	Bus_LM1_198	Bus_LM3_178	2218.80	3328.20	4000.00	
G_LM3_GMC_171	2W XFMR	Bus_LM1_200	Bus_LM3_180	4437.60	6656.40	8000.00	
G_LM3_GMC_172	2W XFMR	Bus_LM1_202	Bus_LM3_182	2218.80	3328.20	4000.00	
G_LM3_GMC_173	2W XFMR	Bus_LM1_203	Bus_LM3_183	4437.60	6656.40	8000.00	
G_LM3_GMC_174	2W XFMR	Bus_LM1_204	Bus_LM3_184	4437.60	6656.40	8000.00	
G_LM3_GMC_175	2W XFMR	Bus_LM1_212	Bus_LM3_194	4437.60	6656.40	8000.00	
G_LM3_GMC_176	2W XFMR	Bus_LM1_211	Bus_LM3_191	4437.60	6656.40	8000.00	
G_LM3_GMC_177	2W XFMR	Bus_LM1_210	Bus_LM3_192	2218.80	3328.20	4000.00	
G_LM3_GMC_178	2W XFMR	Bus_LM1_209	Bus_LM3_193	2218.80	3328.20	4000.00	
G_LM3_GMI_106	2W XFMR	Bus_LM3_188	Bus_LM3_189	4437.60	6656.40	8000.00	
G_LM3_GMI_107	2W XFMR	Bus_LM3_3	Bus_LM3_4	4437.60	6656.40	8000.00	
G_LM3_GMI_108	2W XFMR	Bus_LM3_5	Bus_LM3_6	4437.60	6656.40	8000.00	
G_LM3_GMI_109	2W XFMR	Bus_LM3_7	Bus_LM3_8	4437.60	6656.40	8000.00	
G_LM3_GMI_110	2W XFMR	Bus_LM3_9	Bus_LM3_10	4437.60	6656.40	8000.00	
G_LM3_GMI_111	2W XFMR	Bus_LM3_11	Bus_LM3_12	4437.60	6656.40	8000.00	
G_LM3_GMI_112	2W XFMR	Bus_LM3_13	Bus_LM3_14	8875.20	13312.80	16000.00	
G_LM3_GMI_113	2W XFMR	Bus_LM3_37	Bus_LM3_38	4437.60	6656.40	8000.00	
G_LM3_GMI_114	2W XFMR	Bus_LM3_36	Bus_LM3_27	4437.60	6656.40	8000.00	
G_LM3_GMI_115	2W XFMR	Bus_LM3_35	Bus_LM3_28	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GMI_116	2W XFMR	Bus_LM3_34	Bus_LM3_29	4437.60	6656.40	8000.00	
G_LM3_GMI_117	2W XFMR	Bus_LM3_33	Bus_LM3_30	4437.60	6656.40	8000.00	
G_LM3_GMI_118	2W XFMR	Bus_LM3_32	Bus_LM3_31	8875.20	13312.80	16000.00	
G_LM3_GMI_119	2W XFMR	Bus_LM3_41	Bus_LM3_40	4437.60	6656.40	8000.00	
G_LM3_GMK_120	2W XFMR	Bus_LM3_63	Bus_LM3_62	8875.20	13312.80	16000.00	
G_LM3_GMK_121	2W XFMR	Bus_LM3_64	Bus_LM3_61	4437.60	6656.40	8000.00	
G_LM3_GMK_122	2W XFMR	Bus_LM3_65	Bus_LM3_60	8875.20	13312.80	16000.00	
G_LM3_GMK_123	2W XFMR	Bus_LM3_66	Bus_LM3_59	4437.60	6656.40	8000.00	
G_LM3_GMK_124	2W XFMR	Bus_LM3_67	Bus_LM3_58	2218.80	3328.20	4000.00	
G_LM3_GMK_125	2W XFMR	Bus_LM3_68	Bus_LM3_57	4437.60	6656.40	8000.00	
G_LM3_GMK_126	2W XFMR	Bus_LM3_69	Bus_LM3_56	2218.80	3328.20	4000.00	
G_LM3_GMK_127	2W XFMR	Bus_LM3_76	Bus_LM3_75	4437.60	6656.40	8000.00	
G_LM3_GMK_128	2W XFMR	Bus_LM3_77	Bus_LM3_74	2218.80	3328.20	4000.00	
G_LM3_GMK_129	2W XFMR	Bus_LM3_80	Bus_LM3_79	2218.80	3328.20	4000.00	
G_LM3_GMK_130	2W XFMR	Bus_LM3_81	Bus_LM3_78	4437.60	6656.40	8000.00	
G_LM3_GMK_131	2W XFMR	Bus_LM3_84	Bus_LM3_83	2218.80	3328.20	4000.00	
G_LM3_GMK_132	2W XFMR	Bus_LM3_85	Bus_LM3_82	2218.80	3328.20	4000.00	
G_LM3_GMK_133	2W XFMR	Bus_LM3_88	Bus_LM3_87	8875.20	13312.80	16000.00	
G_LM3_GMK_134	2W XFMR	Bus_LM3_89	Bus_LM3_86	4437.60	6656.40	8000.00	
G_LM3_GMK_135	2W XFMR	Bus_LM3_96	Bus_LM3_95	8875.20	13312.80	16000.00	
G_LM3_GMK_136	2W XFMR	Bus_LM3_97	Bus_LM3_94	2218.80	3328.20	4000.00	
G_LM3_GMK_137	2W XFMR	Bus_LM3_117	Bus_LM3_108	8875.20	13312.80	16000.00	
G_LM3_GMK_138	2W XFMR	Bus_LM3_116	Bus_LM3_109	2218.80	3328.20	4000.00	
G_LM3_GMK_139	2W XFMR	Bus_LM3_115	Bus_LM3_110	2218.80	3328.20	4000.00	
G_LM3_GMK_140	2W XFMR	Bus_LM3_137	Bus_LM3_128	8875.20	13312.80	16000.00	
G_LM3_GMK_141	2W XFMR	Bus_LM3_136	Bus_LM3_129	2218.80	3328.20	4000.00	
G_LM3_GMK_142	2W XFMR	Bus_LM3_135	Bus_LM3_130	8875.20	13312.80	16000.00	
G_LM3_GMK_143	2W XFMR	Bus_LM3_134	Bus_LM3_131	4437.60	6656.40	8000.00	
G_LM3_GMK_144	2W XFMR	Bus_LM3_133	Bus_LM3_132	4437.60	6656.40	8000.00	
G_LM3_GMK_145	2W XFMR	Bus_LM3_114	Bus_LM3_111	8875.20	13312.80	16000.00	
G_LM3_GMK_146	2W XFMR	Bus_LM3_113	Bus_LM3_112	2218.80	3328.20	4000.00	
G_LM3_GMK_147	2W XFMR	Bus_LM1_215	Bus_LM3_196	8875.20	13312.80	16000.00	
G_LM3_GMK_148	2W XFMR	Bus_LM1_217	Bus_LM3_198	2218.80	3328.20	4000.00	
G_LM3_GMK_149	2W XFMR	Bus_LM1_218	Bus_LM3_199	4437.60	6656.40	8000.00	
G_LM3_GMK_150	2W XFMR	Bus_LM1_219	Bus_LM3_200	4437.60	6656.40	8000.00	
G_LM3_GMK_151	2W XFMR	Bus_LM1_220	Bus_LM3_201	4437.60	6656.40	8000.00	
G_LM3_GMK_152	2W XFMR	Bus_LM1_221	Bus_LM3_202	4437.60	6656.40	8000.00	
G_LM3_GMK_153	2W XFMR	Bus_LM1_222	Bus_LM3_203	4437.60	6656.40	8000.00	
G_LM3_GMK_154	2W XFMR	Bus_LM3_116	Bus_LM3_362	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GML_179	2W XFMR	Bus_LM1_224	Bus_LM3_205	2218.80	3328.20	4000.00	
G_LM3_GML_180	2W XFMR	Bus_LM1_226	Bus_LM3_207	2218.80	3328.20	4000.00	
G_LM3_GML_181	2W XFMR	Bus_LM1_227	Bus_LM3_208	4437.60	6656.40	8000.00	
G_LM3_GML_182	2W XFMR	Bus_LM1_228	Bus_LM3_209	4437.60	6656.40	8000.00	
G_LM3_GML_183	2W XFMR	Bus_LM1_229	Bus_LM3_210	4437.60	6656.40	8000.00	
G_LM3_GML_184	2W XFMR	Bus_LM1_230	Bus_LM3_211	2218.80	3328.20	4000.00	
G_LM3_GML_185	2W XFMR	Bus_LM1_231	Bus_LM3_212	2218.80	3328.20	4000.00	
G_LM3_GML_186	2W XFMR	Bus_LM1_232	Bus_LM3_213	8875.20	13312.80	16000.00	
G_LM3_GML_187	2W XFMR	Bus_LM1_233	Bus_LM3_214	4437.60	6656.40	8000.00	
G_LM3_GML_188	2W XFMR	Bus_LM1_237	Bus_LM3_218	4437.60	6656.40	8000.00	
G_LM3_GML_189	2W XFMR	Bus_LM1_236	Bus_LM3_217	4437.60	6656.40	8000.00	
G_LM3_GML_190	2W XFMR	Bus_LM1_239	Bus_LM3_220	4437.60	6656.40	8000.00	
G_LM3_GML_191	2W XFMR	Bus_LM1_238	Bus_LM3_219	4437.60	6656.40	8000.00	
G_LM3_GML_192	2W XFMR	Bus_LM1_241	Bus_LM3_222	4437.60	6656.40	8000.00	
G_LM3_GML_193	2W XFMR	Bus_LM1_240	Bus_LM3_221	4437.60	6656.40	8000.00	
G_LM3_GML_194	2W XFMR	Bus_LM1_243	Bus_LM3_224	8875.20	13312.80	16000.00	
G_LM3_GML_195	2W XFMR	Bus_LM1_242	Bus_LM3_223	2218.80	3328.20	4000.00	
G_LM3_GML_196	2W XFMR	Bus_LM1_245	Bus_LM3_226	1386.75	2080.13	2500.00	
G_LM3_GML_197	2W XFMR	Bus_LM1_244	Bus_LM3_225	2218.80	3328.20	4000.00	
G_LM3_GML_198	2W XFMR	Bus_LM1_249	Bus_LM3_230	2218.80	3328.20	4000.00	
G_LM3_GML_199	2W XFMR	Bus_LM1_251	Bus_LM3_232	4437.60	6656.40	8000.00	
G_LM3_GML_200	2W XFMR	Bus_LM1_253	Bus_LM3_234	4437.60	6656.40	8000.00	
G_LM3_GML_201	2W XFMR	Bus_LM1_254	Bus_LM3_235	4437.60	6656.40	8000.00	
G_LM3_GML_202	2W XFMR	Bus_LM1_255	Bus_LM3_236	4437.60	6656.40	8000.00	
G_LM3_GML_203	2W XFMR	Bus_LM1_259	Bus_LM3_240	4437.60	6656.40	8000.00	
G_LM3_GML_204	2W XFMR	Bus_LM1_258	Bus_LM3_239	2218.80	3328.20	4000.00	
G_LM3_GML_205	2W XFMR	Bus_LM1_267	Bus_LM3_248	2218.80	3328.20	4000.00	
G_LM3_GML_206	2W XFMR	Bus_LM1_266	Bus_LM3_245	8875.20	13312.80	16000.00	
G_LM3_GML_207	2W XFMR	Bus_LM1_265	Bus_LM3_246	4437.60	6656.40	8000.00	
G_LM3_GML_208	2W XFMR	Bus_LM1_264	Bus_LM3_247	8875.20	13312.80	16000.00	
G_LM3_GML_209	2W XFMR	Bus_LM1_270	Bus_LM3_251	4437.60	6656.40	8000.00	
G_LM3_GML_210	2W XFMR	Bus_LM1_271	Bus_LM3_252	2218.80	3328.20	4000.00	
G_LM3_GML_211	2W XFMR	Bus_LM1_275	Bus_LM3_256	2218.80	3328.20	4000.00	
G_LM3_GML_212	2W XFMR	Bus_LM1_274	Bus_LM3_255	2218.80	3328.20	4000.00	
G_LM3_GML_213	2W XFMR	Bus_LM1_277	Bus_LM3_258	4437.60	6656.40	8000.00	
G_LM3_GML_214	2W XFMR	Bus_LM1_282	Bus_LM3_261	4437.60	6656.40	8000.00	
G_LM3_GML_215	2W XFMR	Bus_LM1_281	Bus_LM3_262	4437.60	6656.40	8000.00	
G_LM3_GML_216	2W XFMR	Bus_LM1_284	Bus_LM3_263	4437.60	6656.40	8000.00	
G_LM3_GML_217	2W XFMR	Bus_LM1_283	Bus_LM3_264	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GML_218	2W XFMR	Bus_LM1_286	Bus_LM3_265	4437.60	6656.40	8000.00	
G_LM3_GML_219	2W XFMR	Bus_LM1_285	Bus_LM3_266	4437.60	6656.40	8000.00	
G_LM3_GML_220	2W XFMR	Bus_LM1_288	Bus_LM3_268	4437.60	6656.40	8000.00	
G_LM3_GML_221	2W XFMR	Bus_LM1_294	Bus_LM3_274	8875.20	13312.80	16000.00	
G_LM3_GML_222	2W XFMR	Bus_LM1_293	Bus_LM3_272	8875.20	13312.80	16000.00	
G_LM3_GML_223	2W XFMR	Bus_LM1_292	Bus_LM3_273	2218.80	3328.20	4000.00	
G_LM3_GML_224	2W XFMR	Bus_LM1_300	Bus_LM3_280	4437.60	6656.40	8000.00	
G_LM3_GML_225	2W XFMR	Bus_LM1_299	Bus_LM3_278	4437.60	6656.40	8000.00	
G_LM3_GML_226	2W XFMR	Bus_LM1_298	Bus_LM3_279	8875.20	13312.80	16000.00	
G_LM3_GML_227	2W XFMR	Bus_LM1_306	Bus_LM3_286	2218.80	3328.20	4000.00	
G_LM3_GML_228	2W XFMR	Bus_LM1_305	Bus_LM3_284	4437.60	6656.40	8000.00	
G_LM3_GML_229	2W XFMR	Bus_LM1_304	Bus_LM3_285	4437.60	6656.40	8000.00	
G_LM3_GML_230	2W XFMR	Bus_LM1_309	Bus_LM3_288	4437.60	6656.40	8000.00	
G_LM3_GML_231	2W XFMR	Bus_LM1_313	Bus_LM3_292	4437.60	6656.40	8000.00	
G_LM3_GML_232	2W XFMR	Bus_LM1_312	Bus_LM3_291	4437.60	6656.40	8000.00	
G_LM3_GML_233	2W XFMR	Bus_LM1_321	Bus_LM3_297	14792.01	22188.01	26666.67	
G_LM3_GML_234	2W XFMR	Bus_LM1_320	Bus_LM3_298	14792.01	22188.01	26666.67	
G_LM3_GML_235	2W XFMR	Bus_LM1_319	Bus_LM3_299	2218.80	3328.20	4000.00	
G_LM3_GML_236	2W XFMR	Bus_LM1_318	Bus_LM3_300	2218.80	3328.20	4000.00	
G_LM3_GML_237	2W XFMR	Bus_LM1_330	Bus_LM3_305	4437.60	6656.40	8000.00	
G_LM3_GML_238	2W XFMR	Bus_LM1_329	Bus_LM3_306	4437.60	6656.40	8000.00	
G_LM3_GML_239	2W XFMR	Bus_LM1_328	Bus_LM3_307	8875.20	13312.80	16000.00	
G_LM3_GML_240	2W XFMR	Bus_LM1_327	Bus_LM3_308	4437.60	6656.40	8000.00	
G_LM3_GML_241	2W XFMR	Bus_LM1_338	Bus_LM3_313	4437.60	6656.40	8000.00	
G_LM3_GML_242	2W XFMR	Bus_LM1_337	Bus_LM3_314	14792.01	22188.01	26666.67	
G_LM3_GML_243	2W XFMR	Bus_LM1_336	Bus_LM3_315	4437.60	6656.40	8000.00	
G_LM3_GML_244	2W XFMR	Bus_LM1_335	Bus_LM3_316	4437.60	6656.40	8000.00	
G_LM3_GML_245	2W XFMR	Bus_LM1_343	Bus_LM3_322	4437.60	6656.40	8000.00	
G_LM3_GML_246	2W XFMR	Bus_LM1_344	Bus_LM3_321	2218.80	3328.20	4000.00	
G_LM3_GML_247	2W XFMR	Bus_LM1_346	Bus_LM3_324	2218.80	3328.20	4000.00	
G_LM3_GML_248	2W XFMR	Bus_LM1_358	Bus_LM3_331	8875.20	13312.80	16000.00	
G_LM3_GML_249	2W XFMR	Bus_LM1_357	Bus_LM3_332	4437.60	6656.40	8000.00	
G_LM3_GML_250	2W XFMR	Bus_LM1_356	Bus_LM3_333	4437.60	6656.40	8000.00	
G_LM3_GML_251	2W XFMR	Bus_LM1_355	Bus_LM3_334	4437.60	6656.40	8000.00	
G_LM3_GML_252	2W XFMR	Bus_LM1_354	Bus_LM3_335	4437.60	6656.40	8000.00	
G_LM3_GML_253	2W XFMR	Bus_LM1_353	Bus_LM3_336	4437.60	6656.40	8000.00	
G_LM3_GML_254	2W XFMR	Bus_LM1_361	Bus_LM3_338	4437.60	6656.40	8000.00	
G_LM3_GML_255	2W XFMR	Bus_LM1_362	Bus_LM3_339	2218.80	3328.20	4000.00	
G_LM3_GML_256	2W XFMR	Bus_LM1_368	Bus_LM3_343	8875.20	13312.80	16000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GML_257	2W XFMR	Bus_LM1_367	Bus_LM3_344	4437.60	6656.40	8000.00	
G_LM3_GML_258	2W XFMR	Bus_LM1_366	Bus_LM3_345	2218.80	3328.20	4000.00	
G_LM3_GML_259	2W XFMR	Bus_LM1_377	Bus_LM3_350	8875.20	13312.80	16000.00	
G_LM3_GML_260	2W XFMR	Bus_LM1_376	Bus_LM3_351	4437.60	6656.40	8000.00	
G_LM3_GML_261	2W XFMR	Bus_LM1_375	Bus_LM3_352	4437.60	6656.40	8000.00	
G_LM3_GML_262	2W XFMR	Bus_LM1_345	Bus_LM3_323	4437.60	6656.40	8000.00	
G_LM3_GML_263	2W XFMR	Bus_LM1_380	Bus_LM3_354	2218.80	3328.20	4000.00	
G_LM3_GML_264	2W XFMR	Bus_LM1_384	Bus_LM3_357	4437.60	6656.40	8000.00	
G_LM3_GML_265	2W XFMR	Bus_LM1_383	Bus_LM3_358	4437.60	6656.40	8000.00	
G_LM3_GML_266	2W XFMR	Bus_LM1_386	Bus_LM3_359	4437.60	6656.40	8000.00	
G_LM3_GML_267	2W XFMR	Bus_LM1_385	Bus_LM3_360	4437.60	6656.40	8000.00	
G_LM4_GM_90	2W XFMR	Bus_LM1_125	Bus_LM1_124	1386.75	2080.13	2500.00	
G_LM4_GM_91	2W XFMR	Bus_LM1_126	Bus_LM1_123	2218.80	3328.20	4000.00	
G_LM4_GM_92	2W XFMR	Bus_LM1_127	Bus_LM1_128	4437.60	6656.40	8000.00	
G_LM4_GM_93	2W XFMR	Bus_LM1_137	Bus_LM1_136	4437.60	6656.40	8000.00	
G_LM4_GM_94	2W XFMR	Bus_LM1_138	Bus_LM1_135	2218.80	3328.20	4000.00	
G_LM4_GM_95	2W XFMR	Bus_LM1_139	Bus_LM1_140	2218.80	3328.20	4000.00	
G_LM4_GM_96	2W XFMR	Bus_LM1_151	Bus_LM1_152	4437.60	6656.40	8000.00	
G_LM4_GM_97	2W XFMR	Bus_LM1_150	Bus_LM1_147	2218.80	3328.20	4000.00	
G_LM4_GM_98	2W XFMR	Bus_LM1_149	Bus_LM1_148	2218.80	3328.20	4000.00	
G_LM4_GM_99	2W XFMR	Bus_LM1_157	Bus_LM1_158	4437.60	6656.40	8000.00	
G_LM4_GM_100	2W XFMR	Bus_LM1_156	Bus_LM1_153	4437.60	6656.40	8000.00	
G_LM4_GM_101	2W XFMR	Bus_LM1_155	Bus_LM1_154	1386.75	2080.13	2500.00	
G_LM4_GM_102	2W XFMR	Bus_LM1_163	Bus_LM1_164	2218.80	3328.20	4000.00	
G_LM4_GM_103	2W XFMR	Bus_LM1_162	Bus_LM1_159	4437.60	6656.40	8000.00	
G_LM4_GM_104	2W XFMR	Bus_LM1_161	Bus_LM1_160	4437.60	6656.40	8000.00	
G_LM4_GM_105	2W XFMR	Bus_LM1_167	Bus_LM1_168	2218.80	3328.20	4000.00	
G_LMT1_GMT031	2W XFMR	B_LMT1_GMT254	B_LMT1_GMT253	8875.20	13312.80	16000.00	
G_LMT1_GMT032	2W XFMR	B_LMT1_GMT251	B_LMT1_GMT250	8875.20	13312.80	16000.00	
G_LMT1_GMT033	2W XFMR	B_LMT1_GMT244	B_LMT1_GMT243	4437.60	6656.40	8000.00	
G_LMT1_GMT034	2W XFMR	B_LMT1_GMT245	B_LMT1_GMT246	4437.60	6656.40	8000.00	
G_LMT1_GMT035	2W XFMR	B_LMT1_GMT237	B_LMT1_GMT236	4437.60	6656.40	8000.00	
G_LMT1_GMT036	2W XFMR	B_LMT1_GMT238	B_LMT1_GMT235	2218.80	3328.20	4000.00	
G_LMT1_GMT038	2W XFMR	B_LMT1_GMT227	B_LMT1_GMT226	2218.80	3328.20	4000.00	
G_LMT1_GMT039	2W XFMR	B_LMT1_GMT224	B_LMT1_GMT223	4437.60	6656.40	8000.00	
G_LMT1_GMT040	2W XFMR	B_LMT1_GMT219	B_LMT1_GMT218	2218.80	3328.20	4000.00	
G_LMT1_GMT041	2W XFMR	B_LMT1_GMT215	B_LMT1_GMT213	2218.80	3328.20	4000.00	
G_LMT1_GMT042	2W XFMR	B_LMT1_GMT201	B_LMT1_GMT200	2218.80	3328.20	4000.00	
G_LMT1_GMT043	2W XFMR	B_LMT1_GMT202	B_LMT1_GMT203	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LMT1_GMT044	2W XFMR	B_LMT1_GMT120	B_LMT1_GMT117	1386.75	2080.13	2500.00	
G_LMT1_GMT045	2W XFMR	B_LMT1_GMT119	B_LMT1_GMT118	2218.80	3328.20	4000.00	
G_LMT1_GMT046	2W XFMR	B_LMT1_GMT126	B_LMT1_GMT125	4437.60	6656.40	8000.00	
G_LMT1_GMT047	2W XFMR	B_LMT1_GMT129	B_LMT1_GMT128	1109.40	1664.10	2000.00	
G_LMT1_GMT048	2W XFMR	B_LMT1_GMT138	B_LMT1_GMT137	2218.80	3328.20	4000.00	
G_LMT1_GMT049	2W XFMR	B_LMT1_GMT140	B_LMT1_GMT139	2218.80	3328.20	4000.00	
G_LMT1_GMT050	2W XFMR	B_LMT1_GMT147	B_LMT1_GMT146	2218.80	3328.20	4000.00	
G_LMT1_GMT051	2W XFMR	B_LMT1_GMT154	B_LMT1_GMT153	2218.80	3328.20	4000.00	
G_LMT1_GMT052	2W XFMR	B_LMT1_GMT155	B_LMT1_GMT156	4437.60	6656.40	8000.00	
G_LMT1_GMT053	2W XFMR	B_LMT1_GMT163	B_LMT1_GMT162	4437.60	6656.40	8000.00	
G_LMT1_GMT054	2W XFMR	B_LMT1_GMT164	B_LMT1_GMT165	4437.60	6656.40	8000.00	
G_LMT1_GMT055	2W XFMR	B_LMT1_GMT170	B_LMT1_GMT169	4437.60	6656.40	8000.00	
G_LMT1_GMT056	2W XFMR	B_LMT1_GMT181	B_LMT1_GMT182	2218.80	3328.20	4000.00	
G_LMT1_GMT057	2W XFMR	B_LMT1_GMT180	B_LMT1_GMT179	8875.20	13312.80	16000.00	
G_LMT1_GMT058	2W XFMR	B_LMT1_GMT188	B_LMT1_GMT187	1386.75	2080.13	2500.00	
G_LMT1_GMT059	2W XFMR	B_LMT1_GMT191	B_LMT1_GMT190	8875.20	13312.80	16000.00	
G_LMT1_GMT060	2W XFMR	B_LMT1_GMT194	B_LMT1_GMT193	4437.60	6656.40	8000.00	
G_LMT1_GMT061	2W XFMR	B_LMT1_GMT108	B_LMT1_GMT107	2218.80	3328.20	4000.00	
G_LMT1_GMT062	2W XFMR	B_LMT1_GMT91	B_LMT1_GMT90	4437.60	6656.40	8000.00	
G_LMT1_GMT063	2W XFMR	B_LMT1_GMT101	B_LMT1_GMT98	2218.80	3328.20	4000.00	
G_LMT1_GMT064	2W XFMR	B_LMT1_GMT100	B_LMT1_GMT99	887.52	1331.28	1600.00	
G_LMT1_GMT065	2W XFMR	B_LMT1_GMT79	B_LMT1_GMT75	4437.60	6656.40	8000.00	
G_LMT1_GMT066	2W XFMR	B_LMT1_GMT77	B_LMT1_GMT76	4437.60	6656.40	8000.00	
G_LMT1_GMT067	2W XFMR	B_LMT1_GMT1	B_LMT1_GMT2	2218.80	3328.20	4000.00	
G_LMT1_GMT068	2W XFMR	B_LMT1_GMT8	B_LMT1_GMT7	4437.60	6656.40	8000.00	
G_LMT1_GMT069	2W XFMR	B_LMT1_GMT17	B_LMT1_GMT16	4437.60	6656.40	8000.00	
G_LMT1_GMT070	2W XFMR	B_LMT1_GMT19	B_LMT1_GMT18	2218.80	3328.20	4000.00	
G_LMT1_GMT071	2W XFMR	B_LMT1_GMT28	B_LMT1_GMT25	4437.60	6656.40	8000.00	
G_LMT1_GMT072	2W XFMR	B_LMT1_GMT33	B_LMT1_GMT32	4437.60	6656.40	8000.00	
G_LMT1_GMT073	2W XFMR	B_LMT1_GMT60	B_LMT1_GMT55	4437.60	6656.40	8000.00	
G_LMT1_GMT074	2W XFMR	B_LMT1_GMT59	B_LMT1_GMT56	4437.60	6656.40	8000.00	
G_LMT1_GMT075	2W XFMR	B_LMT1_GMT58	B_LMT1_GMT57	2218.80	3328.20	4000.00	
G_LMT1_GMT076	2W XFMR	B_LMT1_GMT69	B_LMT1_GMT66	2218.80	3328.20	4000.00	
G_LMT1_GMT077	2W XFMR	B_LMT1_GMT68	B_LMT1_GMT67	2218.80	3328.20	4000.00	
G_LMT1_GMT079	2W XFMR	B_LMT1_GMT41	B_LMT1_GMT39	4437.60	6656.40	8000.00	
G_LMT1_GMT080	2W XFMR	B_LMT1_GMT46	B_LMT1_GMT45	2218.80	3328.20	4000.00	
G_LMT1_GMT081	2W XFMR	B_LMT1_GMT48	B_LMT1_GMT47	4437.60	6656.40	8000.00	
G_LMT1_GMT123	2W XFMR	B_LMT1_GMT208	B_LMT1_GMT207	2218.80	3328.20	4000.00	
G_LMT1_GMT132	2W XFMR	B_LMT1_GMT85	B_LMT1_GMT84	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LMT2_GMT081	2W XFMR	B_LMT2_GMT3	B_LMT2_GMT2	4437.60	6656.40	8000.00	
G_LMT2_GMT082	2W XFMR	B_LMT2_GMT7	B_LMT2_GMT6	2218.80	3328.20	4000.00	
G_LMT2_GMT083	2W XFMR	B_LMT2_GMT12	B_LMT2_GMT10	8875.20	13312.80	16000.00	
G_LMT2_GMT084	2W XFMR	B_LMT2_GMT18	B_LMT2_GMT17	4437.60	6656.40	8000.00	
G_LMT2_GMT085	2W XFMR	B_LMT2_GMT26	B_LMT2_GMT23	4437.60	6656.40	8000.00	
G_LMT2_GMT086	2W XFMR	B_LMT2_GMT25	B_LMT2_GMT24	2218.80	3328.20	4000.00	
G_LMT2_GMT087	2W XFMR	B_LMT2_GMT30	B_LMT2_GMT27	4437.60	6656.40	8000.00	
G_LMT2_GMT088	2W XFMR	B_LMT2_GMT29	B_LMT2_GMT28	4437.60	6656.40	8000.00	
G_LMT2_GMT089	2W XFMR	B_LMT2_GMT34	B_LMT2_GMT33	4437.60	6656.40	8000.00	
G_LMT2_GMT090	2W XFMR	B_LMT2_GMT41	B_LMT2_GMT40	8875.20	13312.80	16000.00	
G_LMT2_GMT091	2W XFMR	B_LMT2_GMT45	B_LMT2_GMT44	8875.20	13312.80	16000.00	
G_LMT2_GMT092	2W XFMR	B_LMT2_GMT47	B_LMT2_GMT46	4437.60	6656.40	8000.00	
G_LMT2_GMT093	2W XFMR	B_LMT2_GMT55	B_LMT2_GMT52	4437.60	6656.40	8000.00	
G_LMT2_GMT094	2W XFMR	B_LMT2_GMT54	B_LMT2_GMT53	8875.20	13312.80	16000.00	
G_LMT2_GMT095	2W XFMR	B_LMT2_GMT61	B_LMT2_GMT60	4437.60	6656.40	8000.00	
G_LMT2_GMT096	2W XFMR	B_LMT2_GMT67	B_LMT2_GMT66	4437.60	6656.40	8000.00	
G_LMT2_GMT097	2W XFMR	B_LMT2_GMT69	B_LMT2_GMT68	8875.20	13312.80	16000.00	
G_LMT2_GMT098	2W XFMR	B_LMT2_GMT77	B_LMT2_GMT76	8875.20	13312.80	16000.00	
G_LMT2_GMT099	2W XFMR	B_LMT2_GMT83	B_LMT2_GMT82	4437.60	6656.40	8000.00	
G_LMT2_GMT100	2W XFMR	B_LMT2_GMT95	B_LMT2_GMT94	2218.80	3328.20	4000.00	
G_LMT2_GMT101	2W XFMR	B_LMT2_GMT91	B_LMT2_GMT90	4437.60	6656.40	8000.00	
G_LMT2_GMT102	2W XFMR	B_LMT2_GMT109	B_LMT2_GMT108	4437.60	6656.40	8000.00	
G_LMT2_GMT103	2W XFMR	B_LMT2_GMT111	B_LMT2_GMT110	4437.60	6656.40	8000.00	
G_LMT2_GMT104	2W XFMR	B_LMT2_GMT113	B_LMT2_GMT112	4437.60	6656.40	8000.00	
G_LMT2_GMT105	2W XFMR	B_LMT2_GMT119	B_LMT2_GMT118	4437.60	6656.40	8000.00	
G_LMT2_GMT106	2W XFMR	B_LMT2_GMT131	B_LMT2_GMT130	4437.60	6656.40	8000.00	
G_LMT2_GMT107	2W XFMR	B_LMT2_GMT133	B_LMT2_GMT132	2218.80	3328.20	4000.00	
G_LMT2_GMT108	2W XFMR	B_LMT2_GMT147	B_LMT2_GMT146	4437.60	6656.40	8000.00	
G_LMT2_GMT109	2W XFMR	B_LMT2_GMT153	B_LMT2_GMT152	4437.60	6656.40	8000.00	
G_LMT2_GMT110	2W XFMR	B_LMT2_GMT155	B_LMT2_GMT154	4437.60	6656.40	8000.00	
G_LMT2_GMT111	2W XFMR	B_LMT2_GMT159	B_LMT2_GMT158	8875.20	13312.80	16000.00	
G_LMT2_GMT112	2W XFMR	B_LMT2_GMT166	B_LMT2_GMT165	4437.60	6656.40	8000.00	
G_LMT2_GMT113	2W XFMR	B_LMT2_GMT176	B_LMT2_GMT175	2218.80	3328.20	4000.00	
G_LMT2_GMT114	2W XFMR	B_LMT2_GMT178	B_LMT2_GMT177	4437.60	6656.40	8000.00	
G_LMT2_GMT116	2W XFMR	B_LMT2_GMT189	B_LMT2_GMT188	4437.60	6656.40	8000.00	
G_LMT2_GMT117	2W XFMR	B_LMT2_GMT191	B_LMT2_GMT190	4437.60	6656.40	8000.00	
G_LMT2_GMT118	2W XFMR	B_LMT2_GMT195	B_LMT2_GMT194	8875.20	13312.80	16000.00	
G_LMT2_GMT119	2W XFMR	B_LMT2_GMT197	B_LMT2_GMT196	4437.60	6656.40	8000.00	
G_LMT2_GMT120	2W XFMR	B_LMT2_GMT204	B_LMT2_GMT203	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LMT2_GMT121	2W XFMR	B_LMT2_GMT207	B_LMT2_GMT206	4437.60	6656.40	8000.00	
G_LMT2_GMT122	2W XFMR	B_LMT2_GMT220	B_LMT2_GMT219	4437.60	6656.40	8000.00	
G_LMT2_GMT123	2W XFMR	B_LMT2_GMT216	B_LMT2_GMT215	4437.60	6656.40	8000.00	
G_LMT2_GMT124	2W XFMR	B_LMT2_GMT229	B_LMT2_GMT228	4437.60	6656.40	8000.00	
G_LMT2_GMT125	2W XFMR	B_LMT2_GMT231	B_LMT2_GMT230	4437.60	6656.40	8000.00	
G_LMT2_GMT126	2W XFMR	B_LMT2_GMT244	B_LMT2_GMT243	4437.60	6656.40	8000.00	
G_LMT2_GMT127	2W XFMR	B_LMT2_GMT246	B_LMT2_GMT245	2218.80	3328.20	4000.00	
G_LMT2_GMT128	2W XFMR	B_LMT2_GMT248	B_LMT2_GMT247	8875.20	13312.80	16000.00	
G_LMT2_GMT129	2W XFMR	B_LMT2_GMT259	B_LMT2_GMT258	4437.60	6656.40	8000.00	
G_LMT2_GMT130	2W XFMR	B_LMT2_GMT263	B_LMT2_GMT260	4437.60	6656.40	8000.00	
G_LMT2_GMT131	2W XFMR	B_LMT2_GMT262	B_LMT2_GMT261	4437.60	6656.40	8000.00	
G_LMT2_GMT135	2W XFMR	B_LMT2_GMT124	B_LMT2_GMT123	4437.60	6656.40	8000.00	
G_MR1_GMP_1	2W XFMR	Bus_MR1_GMP2	Bus_MR1_GMP1	4437.60	6656.40	8000.00	
G_MR1_GMP_2_	2W XFMR	Bus_MR1_GMP92	Bus_MR1_GMP93	8875.20	13312.80	16000.00	
G_MR1_GMP_3	2W XFMR	Bus_MR1_GMP6	Bus_MR1_GMP5	4437.60	6656.40	8000.00	
G_MR1_GMP_4	2W XFMR	Bus_MR1_GMP8	Bus_MR1_GMP7	4437.60	6656.40	8000.00	
G_MR1_GMP_5	2W XFMR	Bus_MR1_GMP10	Bus_MR1_GMP9	2218.80	3328.20	4000.00	
G_MR1_GMP_6	2W XFMR	Bus_MR1_GMP12	Bus_MR1_GMP11	1109.40	1664.10	2000.00	
G_MR1_GMP_7	2W XFMR	Bus_MR1_GMP14	Bus_MR1_GMP13	4437.60	6656.40	8000.00	
G_MR1_GMP_8	2W XFMR	Bus_MR1_GMP16	Bus_MR1_GMP15	4437.60	6656.40	8000.00	
G_MR1_GMP_9	2W XFMR	Bus_MR1_GMP18	Bus_MR1_GMP17	4437.60	6656.40	8000.00	
G_MR1_GMP_10	2W XFMR	Bus_MR1_GMP20	Bus_MR1_GMP19	2218.80	3328.20	4000.00	
G_MR1_GMP_11	2W XFMR	Bus_MR1_GMP22	Bus_MR1_GMP21	4437.60	6656.40	8000.00	
G_MR1_GMP_12	2W XFMR	Bus_MR1_GMP24	Bus_MR1_GMP23	4437.60	6656.40	8000.00	
G_MR1_GMP_13	2W XFMR	Bus_MR1_GMP26	Bus_MR1_GMP25	2218.80	3328.20	4000.00	
G_MR1_GMP_14	2W XFMR	Bus_MR1_GMP28	Bus_MR1_GMP27	2218.80	3328.20	4000.00	
G_MR1_GMP_15	2W XFMR	Bus_MR1_GMP30	Bus_MR1_GMP29	8875.20	13312.80	16000.00	
G_MR1_GMP_16	2W XFMR	Bus_MR1_GMP32	Bus_MR1_GMP31	2218.80	3328.20	4000.00	
G_MR1_GMP_17	2W XFMR	Bus_MR1_GMP34	Bus_MR1_GMP33	4437.60	6656.40	8000.00	
G_MR1_GMP_18	2W XFMR	Bus_MR1_GMP36	Bus_MR1_GMP35	4437.60	6656.40	8000.00	
G_MR1_GMP_19	2W XFMR	Bus_MR1_GMP38	Bus_MR1_GMP37	4437.60	6656.40	8000.00	
G_MR1_GMP_20_	2W XFMR	Bus_MR1_GMP86	Bus_MR1_GMP87	4437.60	6656.40	8000.00	
G_MR1_GMP_21	2W XFMR	Bus_MR1_GMP43	Bus_MR1_GMP44	4437.60	6656.40	8000.00	
G_MR1_GMP_22	2W XFMR	Bus_MR1_GMP45	Bus_MR1_GMP46	4437.60	6656.40	8000.00	
G_MR1_GMP_23	2W XFMR	Bus_MR1_GMP47	Bus_MR1_GMP48	4437.60	6656.40	8000.00	
G_MR1_GMP_24	2W XFMR	Bus_MR1_GMP49	Bus_MR1_GMP50	2218.80	3328.20	4000.00	
G_MR1_GMP_25	2W XFMR	Bus_MR1_GMP51	Bus_MR1_GMP52	4437.60	6656.40	8000.00	
G_MR1_GMP_26	2W XFMR	Bus_MR1_GMP53	Bus_MR1_GMP54	4437.60	6656.40	8000.00	
G_MR1_GMP_27	2W XFMR	Bus_MR1_GMP55	Bus_MR1_GMP56	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_MR1_GMP_28	2W XFMR	Bus_MR1_GMP57	Bus_MR1_GMP58	2218.80	3328.20	4000.00	
G_MR1_GMP_29	2W XFMR	Bus_MR1_GMP59	Bus_MR1_GMP60	2218.80	3328.20	4000.00	
G_MR1_GMP_30	2W XFMR	Bus_MR1_GMP61	Bus_MR1_GMP62	4437.60	6656.40	8000.00	
G_MR1_GMP_31	2W XFMR	Bus_MR1_GMP63	Bus_MR1_GMP64	4437.60	6656.40	8000.00	
G_MR1_GMP_32	2W XFMR	Bus_MR1_GMP65	Bus_MR1_GMP66	1386.75	2080.13	2500.00	
G_MR1_GMP_33_	2W XFMR	Bus_MR1_GMP97	Bus_MR1_GMP98	4437.60	6656.40	8000.00	
G_MR1_GMP_34	2W XFMR	Bus_MR1_GMP72	Bus_MR1_GMP73	4437.60	6656.40	8000.00	
G_MR1_GMP_35	2W XFMR	Bus_MR1_GMP74	Bus_MR1_GMP75	4437.60	6656.40	8000.00	
G_MR1_GMP_36	2W XFMR	Bus_MR1_GMP76	Bus_MR1_GMP77	4437.60	6656.40	8000.00	
G_MR1_GMP_37	2W XFMR	Bus_MR1_GMP78	Bus_MR1_GMP79	8875.20	13312.80	16000.00	
G_MR1_GMP_38	2W XFMR	Bus_MR1_GMP80	Bus_MR1_GMP81	4437.60	6656.40	8000.00	
G_MR1_GMP_39	2W XFMR	Bus_MR1_GMP82	Bus_MR1_GMP83	2218.80	3328.20	4000.00	
G_MR4_GM02	2W XFMR	B_MR04_GM2	B_MR04_GM_2	73.96	110.94	133.33	
G_MR4_GM03	2W XFMR	B_MR04_GM3	B_MR04_GM_3	2218.80	3328.20	4000.00	
G_MR4_GM04	2W XFMR	B_MR04_GM4	B_MR04_GM_4	4437.60	6656.40	8000.00	
G_MR4_GM05	2W XFMR	B_MR04_GM5	B_MR04_GM_5	8875.20	13312.80	16000.00	
G_MR4_GM06	2W XFMR	B_MR04_GM6	B_MR04_GM_6	8875.20	13312.80	16000.00	
G_MR4_GM07	2W XFMR	B_MR04_GM7	B_MR04_GM_7	8875.20	13312.80	16000.00	
G_MR4_GM08	2W XFMR	B_MR04_GM8	B_MR04_GM_8	4437.60	6656.40	8000.00	
G_MR4_GM09	2W XFMR	B_MR04_GM9	B_MR04_GM_9	4437.60	6656.40	8000.00	
G_MR4_GM10	2W XFMR	B_MR04_GM10	B_MR04_GM_10	2218.80	3328.20	4000.00	
G_MR4_GM11	2W XFMR	B_MR04_GM11	B_MR04_GM_11	8875.20	13312.80	16000.00	
G_MR4_GM12	2W XFMR	B_MR04_GM12	B_MR04_GM_12	8875.20	13312.80	16000.00	
G_MR4_GM13	2W XFMR	B_MR04_GM13	B_MR04_GM_13	4437.60	6656.40	8000.00	
G_MR4_GM14	2W XFMR	B_MR04_GM14	B_MR04_GM_14	4437.60	6656.40	8000.00	
G_MR4_GM15	2W XFMR	B_MR04_GM15	B_MR04_GM_15	8875.20	13312.80	16000.00	
G_MR4_GM16	2W XFMR	B_MR04_GM16	B_MR04_GM_16	2218.80	3328.20	4000.00	
G_MR4_GM17	2W XFMR	B_MR04_GM17	B_MR04_GM_17	4437.60	6656.40	8000.00	
G_MR4_GM18	2W XFMR	B_MR04_GM18	B_MR04_GM_18	4437.60	6656.40	8000.00	
G_MR4_GM19	2W XFMR	B_MR04_GM19	B_MR04_GM_19	2218.80	3328.20	4000.00	
G_MR4_GM20	2W XFMR	B_MR04_GM20	B_MR04_GM_20	4437.60	6656.40	8000.00	
G_MR4_GM21	2W XFMR	B_MR04_GM21	B_MR04_GM_21	4437.60	6656.40	8000.00	
G_MR4_GM22	2W XFMR	B_MR04_GM22	B_MR04_GM_22	2218.80	3328.20	4000.00	
G_MR4_GM23	2W XFMR	B_MR04_GM23	B_MR04_GM_23	8875.20	13312.80	16000.00	
G_MR4_GM24	2W XFMR	B_MR04_GM24	B_MR04_GM_24	4437.60	6656.40	8000.00	
G_MR4_GM25	2W XFMR	B_MR04_GM25	B_MR04_GM_25	2218.80	3328.20	4000.00	
G_MR4_GM26	2W XFMR	B_MR04_GM26	B_MR04_GM_26	4437.60	6656.40	8000.00	
G_MR4_GM27	2W XFMR	B_MR04_GM27	B_MR04_GM_27	4437.60	6656.40	8000.00	
G_MR4_GM28	2W XFMR	B_MR04_GM28	B_MR04_GM_28	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_MR4_GM29	2W XFMR	B_MR04_GM29	B_MR04_GM_29	4437.60	6656.40	8000.00	
G_MR4_GM30	2W XFMR	B_MR04_GM30	B_MR04_GM_30	4437.60	6656.40	8000.00	
G_MR4_GM31	2W XFMR	B_MR04_GM31	B_MR04_GM_31	2218.80	3328.20	4000.00	
G_MR4_GM32	2W XFMR	B_MR04_GM32	B_MR04_GM_32	8875.20	13312.80	16000.00	
G_MR4_GM33	2W XFMR	B_MR04_GM33	B_MR04_GM_33	2218.80	3328.20	4000.00	
G_MR4_GM34	2W XFMR	B_MR04_GM34	B_MR04_GM_34	2218.80	3328.20	4000.00	
G_MR4_GM35	2W XFMR	B_MR04_GM35	B_MR04_GM_35	4437.60	6656.40	8000.00	
G_MR4_GM36	2W XFMR	B_MR04_GM36	B_MR04_GM_36	8875.20	13312.80	16000.00	
G_MR4_GM37	2W XFMR	B_MR04_GM37	B_MR04_GM_37	2218.80	3328.20	4000.00	
G_MR4_GM38	2W XFMR	B_MR04_GM38	B_MR04_GM_38	4437.60	6656.40	8000.00	
G_MR4_GM39	2W XFMR	B_MR04_GM39	B_MR04_GM_39	4437.60	6656.40	8000.00	
G_MR4_GM40	2W XFMR	B_MR04_GM40	B_MR04_GM_40	2218.80	3328.20	4000.00	
G_MR4_GM41	2W XFMR	B_MR04_GM41	B_MR04_GM_41	2218.80	3328.20	4000.00	
G_MR4_GM42	2W XFMR	B_MR04_GM42	B_MR04_GM_42	2218.80	3328.20	4000.00	
G_MR4_GM43	2W XFMR	B_MR04_GM43	B_MR04_GM_43	4437.60	6656.40	8000.00	
G_MR4_GM44	2W XFMR	B_MR04_GM44	B_MR04_GM_44	2218.80	3328.20	4000.00	
G_MR4_GM45	2W XFMR	B_MR04_GM45	B_MR04_GM_45	4437.60	6656.40	8000.00	
G_MR4_GM46	2W XFMR	B_MR04_GM46	B_MR04_GM_46	2218.80	3328.20	4000.00	
G_MR4_GM47	2W XFMR	B_MR04_GM47	B_MR04_GM_47	4437.60	6656.40	8000.00	
G_MR4_GM48	2W XFMR	B_MR04_GM48	B_MR04_GM_48	2218.80	3328.20	4000.00	
G_MR4_GM49	2W XFMR	B_MR04_GM49	B_MR04_GM_49	2218.80	3328.20	4000.00	
G_MR4_GMP01	2W XFMR	B_MR04_GM1	B_MR04_GM_1	4437.60	6656.40	8000.00	
G_MR6_GMP040	2W XFMR	B_MR6_GMP4	B_MR6_GMP3	8875.20	13312.80	16000.00	
G_MR6_GMP041	2W XFMR	B_MR6_GMP7	B_MR6_GMP6	4437.60	6656.40	8000.00	
G_MR6_GMP042	2W XFMR	B_MR6_GMP11	B_MR6_GMP10	4437.60	6656.40	8000.00	
G_MR6_GMP043	2W XFMR	B_MR6_GMP13	B_MR6_GMP12	2218.80	3328.20	4000.00	
G_MR6_GMP044	2W XFMR	B_MR6_GMP15	B_MR6_GMP14	2218.80	3328.20	4000.00	
G_MR6_GMP045	2W XFMR	B_MR6_GMP21	B_MR6_GMP20	2218.80	3328.20	4000.00	
G_MR6_GMP046	2W XFMR	B_MR6_GMP26	B_MR6_GMP24	4437.60	6656.40	8000.00	
G_MR6_GMP047	2W XFMR	B_MR6_GMP32	B_MR6_GMP31	4437.60	6656.40	8000.00	
G_MR6_GMP048	2W XFMR	B_MR6_GMP36	B_MR6_GMP35	1109.40	1664.10	2000.00	
G_MR6_GMP049	2W XFMR	B_MR6_GMP44	B_MR6_GMP43	4437.60	6656.40	8000.00	
G_MR6_GMP050	2W XFMR	B_MR6_GMP45	B_MR6_GMP42	4437.60	6656.40	8000.00	
G_MR6_GMP051	2W XFMR	B_MR6_GMP54	B_MR6_GMP51	4437.60	6656.40	8000.00	
G_MR6_GMP052	2W XFMR	B_MR6_GMP53	B_MR6_GMP52	4437.60	6656.40	8000.00	
G_MR6_GMP053	2W XFMR	B_MR6_GMP59	B_MR6_GMP58	4437.60	6656.40	8000.00	
G_MR6_GMP054	2W XFMR	B_MR6_GMP63	B_MR6_GMP62	2218.80	3328.20	4000.00	
G_MR6_GMP055	2W XFMR	B_MR6_GMP65	B_MR6_GMP64	4437.60	6656.40	8000.00	
G_MR6_GMP056	2W XFMR	B_MR6_GMP70	B_MR6_GMP69	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_MR6_GMP057	2W XFMR	B_MR6_GMP73	B_MR6_GMP71	4437.60	6656.40	8000.00	
G_MR6_GMP058	2W XFMR	B_MR6_GMP77	B_MR6_GMP76	2218.80	3328.20	4000.00	
G_MR6_GMP059	2W XFMR	B_MR6_GMP79	B_MR6_GMP78	4437.60	6656.40	8000.00	
G_MR6_GMP060	2W XFMR	B_MR6_GMP81	B_MR6_GMP80	4437.60	6656.40	8000.00	
G_MR6_GMP061	2W XFMR	B_MR6_GMT3	B_MR6_GMT1	2218.80	3328.20	4000.00	
G_MR6_GMT001	2W XFMR	B_MR6_GMT9	B_MR6_GMT8	8875.20	13312.80	16000.00	
G_MR6_GMT002	2W XFMR	B_MR6_GMT13	B_MR6_GMT14	4437.60	6656.40	8000.00	
G_MR6_GMT003	2W XFMR	B_MR6_GMT19	B_MR6_GMT18	4437.60	6656.40	8000.00	
G_MR6_GMT004	2W XFMR	B_MR6_GMT21	B_MR6_GMT20	2218.80	3328.20	4000.00	
G_MR6_GMT005	2W XFMR	B_MR6_GMT27	B_MR6_GMT26	2218.80	3328.20	4000.00	
G_MR6_GMT006	2W XFMR	B_MR6_GMT30	B_MR6_GMT31	8875.20	13312.80	16000.00	
G_MR6_GMT007	2W XFMR	B_MR6_GMT37	B_MR6_GMT36	4437.60	6656.40	8000.00	
G_MR6_GMT008	2W XFMR	B_MR6_GMT47	B_MR6_GMT45	8875.20	13312.80	16000.00	
G_MR6_GMT009	2W XFMR	B_MR6_GMT48	B_MR6_GMT44	8875.20	13312.80	16000.00	
G_MR6_GMT010	2W XFMR	B_MR6_GMT54	B_MR6_GMT53	4437.60	6656.40	8000.00	
G_MR6_GMT011	2W XFMR	B_MR6_GMT59	B_MR6_GMT58	4437.60	6656.40	8000.00	
G_MR6_GMT012	2W XFMR	B_MR6_GMT61	B_MR6_GMT60	2218.80	3328.20	4000.00	
G_MR6_GMT013	2W XFMR	B_MR6_GMT63	B_MR6_GMT62	8875.20	13312.80	16000.00	
G_MR6_GMT015	2W XFMR	B_MR6_GMT65	B_MR6_GMT64	4437.60	6656.40	8000.00	
G_MR6_GMT016	2W XFMR	B_MR6_GMT73	B_MR6_GMT70	4437.60	6656.40	8000.00	
G_MR6_GMT017	2W XFMR	B_MR6_GMT72	B_MR6_GMT71	8875.20	13312.80	16000.00	
G_MR6_GMT018	2W XFMR	B_MR6_GMT77	B_MR6_GMT74	4437.60	6656.40	8000.00	
G_MR6_GMT020	2W XFMR	B_MR6_GMT81	B_MR6_GMT80	2218.80	3328.20	4000.00	
G_MR6_GMT021	2W XFMR	B_MR6_GMT84	B_MR6_GMT82	4437.60	6656.40	8000.00	
G_MR6_GMT022	2W XFMR	B_MR6_GMT88	B_MR6_GMT87	2218.80	3328.20	4000.00	
G_MR6_GMT023	2W XFMR	B_MR6_GMT92	B_MR6_GMT91	2218.80	3328.20	4000.00	
G_MR6_GMT024	2W XFMR	B_MR6_GMT99	B_MR6_GMT96	4437.60	6656.40	8000.00	
G_MR6_GMT025	2W XFMR	B_MR6_GMT103	B_MR6_GMT102	4437.60	6656.40	8000.00	
G_MR6_GMT026	2W XFMR	B_MR6_GMT111	B_MR6_GMT110	4437.60	6656.40	8000.00	
G_MR6_GMT027	2W XFMR	B_MR6_GMT113	B_MR6_GMT109	4437.60	6656.40	8000.00	
G_MR6_GMT028	2W XFMR	B_MR6_GMT117	B_MR6_GMT116	4437.60	6656.40	8000.00	
G_MR6_GMT029	2W XFMR	B_MR6_GMT127	B_MR6_GMT126	8875.20	13312.80	16000.00	
G_MR6_GMT030	2W XFMR	B_MR6_GMT124	B_MR6_GMT123	8875.20	13312.80	16000.00	
G_MR6_GMT134	2W XFMR	B_MR6_GMT76	B_MR6_GMT75	4437.60	6656.40	8000.00	
INC LM3	Cable	GH LEMITO	Bus_LM1_249	1.92	1.23	2.28	0.0188600
INC_MR.6	Cable	GH TILAMUTA	MR6 V UJUNG2	1.92	1.23	2.28	0.0188600
LM.1	Cable	GH MARISA1	Bus_LM1_1	1.92	1.23	2.28	0.0188600
LM.3	Cable	GH MARISA	B_LM3	1.92	1.23	2.28	0.0188600
LM.4	Cable	GH MARISA1	Bus_LM1_169	1.92	1.23	2.28	0.0188600

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
LM.5	Cable	GH MARISA	B_AG2_GK7	1.92	1.23	2.28	0.0188600
LMT.1	Cable	GH TILAMUTA	B_MR6_GMT130	1.92	1.23	2.28	0.0188600
LMT.2	Cable	GH TILAMUTA	B_LMT2_1	1.92	1.23	2.28	0.0188600
LO_1	Cable	GH LEMITO	Bus_LM1_251	1.92	1.23	2.28	0.0188600
MR.1	Cable	GI MARISA	Bus_MR1_GMP94	1.92	1.23	2.28	0.0188600
MR.3	Cable	GI MARISA	B_AG2_GK7	138.96	93.67	167.58	
MR.4	Cable	GI MARISA	B_MR04_GM	1.92	1.23	2.28	0.0188600
MR.6	Cable	GI MARISA	B_MR6_GMP1	1.92	1.23	2.28	0.0188600
LM.2	Cable	LM.2~	B_MR3	1.92	1.23	2.28	0.0188600
L_AG2_3	Line	Bus_LM1_46	LM1 V UJUNG	3.19	2.83	4.26	0.0004162
L_AG2_43	Line	B_LMT2_GMT262	LMT2 V UJUNG	7.44	6.60	9.94	0.0009711
L_AG2_55	Line	B_MR6_GMP2	MR6 V UJUNG	21.26	18.85	28.41	0.0027747
L_AG2_58	Line	B_MR6_GMP82	MR6 V UJUNG	6.38	5.65	8.52	0.0008324
L_AG2_62	Line	B_LMT1_GMT195	LMT1 V UJUNG	7.44	6.60	9.94	0.0009711
L_AG2_65	Line	Bus_MR1_GMP82	MR1 V UJUNG	13.11	9.55	16.23	0.0013587
L_AG2_66	Line	B_MR04_GM18	B_MR3	5.32	4.71	7.10	0.0006937
L_AG2_68	Line	Bus_LM1_167	LM4 V UJUNG	7.44	6.60	9.94	0.0009711
L_AG2_74	Line	Bus_LM3_113	LM3 V UJUNG	3.37	4.78	5.85	0.0007274
L_AG2_77	Line	Bus_LM1_383	LO2 V UJUNG	4.25	3.77	5.68	0.0005549
L_LM1_GM_1	Line	Bus_LM1_1	Bus_LM1_3	10.63	9.43	14.21	0.0013876
L_LM1_GM_3	Line	Bus_LM1_3	Bus_LM1_7	10.63	9.43	14.21	0.0013876
L_LM1_GM_4	Line	Bus_LM1_7	Bus_LM1_9	10.63	9.43	14.21	0.0013876
L_LM1_GM_5	Line	Bus_LM1_9	Bus_LM1_11	10.63	9.43	14.21	0.0013876
L_LM1_GM_6	Line	Bus_LM1_11	Bus_LM1_13	10.63	9.43	14.21	0.0013876
L_LM1_GM_7	Line	Bus_LM1_13	Bus_LM1_15	10.63	9.43	14.21	0.0013876
L_LM1_GM_8	Line	Bus_LM1_15	Bus_LM1_17	10.63	9.43	14.21	0.0013876
L_LM1_GM_9	Line	Bus_LM1_17	Bus_LM1_19	10.63	9.43	14.21	0.0013876
L_LM1_GM_10	Line	Bus_LM1_19	Bus_LM1_21	10.63	9.43	14.21	0.0013876
L_LM1_GM_12	Line	Bus_LM1_21	Bus_LM1_25	10.63	9.43	14.21	0.0013876
L_LM1_GM_13	Line	Bus_LM1_25	Bus_LM1_41	10.63	9.43	14.21	0.0013876
L_LM1_GM_16	Line	Bus_LM1_41	Bus_LM1_31	10.63	9.43	14.21	0.0013876
L_LM1_GM_17	Line	Bus_LM1_35	Bus_LM1_33	10.63	9.43	14.21	0.0013876
L_LM1_GM_18	Line	Bus_LM1_39	Bus_LM1_35	10.63	9.43	14.21	0.0013876
L_LM1_GM_19	Line	Bus_LM1_31	Bus_LM1_37	10.63	9.43	14.21	0.0013876
L_LM1_GM_20	Line	Bus_LM1_37	Bus_LM1_39	10.63	9.43	14.21	0.0013876
L_LM1_GM_21	Line	Bus_LM1_33	Bus_LM1_42	10.63	9.43	14.21	0.0013876
L_LM1_GM_22	Line	Bus_LM1_42	Bus_LM1_44	10.63	9.43	14.21	0.0013876
L_LM1_GM_23	Line	Bus_LM1_44	Bus_LM1_46	10.63	9.43	14.21	0.0013876
L_LM1_GM_29	Line	Bus_LM1_35	Bus_LM1_59	10.63	9.43	14.21	0.0013876

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_30	Line	Bus_LM1_59	Bus_LM1_66	10.63	9.43	14.21	0.0013876
L_LM1_GM_31	Line	Bus_LM1_64	Bus_LM1_63	10.63	9.43	14.21	0.0013876
L_LM1_GM_32	Line	Bus_LM1_65	Bus_LM1_64	10.63	9.43	14.21	0.0013876
L_LM1_GM_33	Line	Bus_LM1_66	Bus_LM1_65	10.63	9.43	14.21	0.0013876
L_LM1_GM_35	Line	Bus_LM1_7	Bus_LM1_70	10.63	9.43	14.21	0.0013876
L_LM1_GM_37	Line	Bus_LM1_70	Bus_LM1_74	10.63	9.43	14.21	0.0013876
L_LM1_GM_38	Line	Bus_LM1_74	Bus_LM1_76	10.63	9.43	14.21	0.0013876
L_LM1_GM_39	Line	Bus_LM1_76	Bus_LM1_78	10.63	9.43	14.21	0.0013876
L_LM1_GM_40	Line	Bus_LM1_78	Bus_LM1_80	10.63	9.43	14.21	0.0013876
L_LM1_GM_41	Line	Bus_LM1_80	Bus_LM1_82	10.63	9.43	14.21	0.0013876
L_LM1_GM_42	Line	Bus_LM1_82	Bus_LM1_84	10.63	9.43	14.21	0.0013876
L_LM1_GM_43	Line	Bus_LM1_84	Bus_LM1_86	10.63	9.43	14.21	0.0013876
L_LM1_GM_45	Line	Bus_LM1_86	Bus_LM1_91	10.63	9.43	14.21	0.0013876
L_LM1_GM_46	Line	Bus_LM1_91	Bus_LM1_93	10.63	9.43	14.21	0.0013876
L_LM1_GM_47	Line	Bus_LM1_97	Bus_LM1_95	10.63	9.43	14.21	0.0013876
L_LM1_GM_48	Line	Bus_LM1_93	Bus_LM1_97	10.63	9.43	14.21	0.0013876
L_LM1_GM_49	Line	Bus_LM1_95	Bus_LM1_99	10.63	9.43	14.21	0.0013876
L_LM1_GM_50	Line	Bus_LM1_99	Bus_LM1_101	10.63	9.43	14.21	0.0013876
L_LM1_GM_55	Line	Bus_LM1_101	Bus_LM1_115	10.63	9.43	14.21	0.0013876
L_LM1_GM_56	Line	Bus_LM1_114	Bus_LM1_113	10.63	9.43	14.21	0.0013876
L_LM1_GM_57	Line	Bus_LM1_115	Bus_LM1_114	10.63	9.43	14.21	0.0013876
L_LM1_GM_61	Line	Bus_LM1_151	Bus_LM1_125	10.63	9.43	14.21	0.0013876
L_LM1_GM_62	Line	Bus_LM1_125	Bus_LM1_126	10.63	9.43	14.21	0.0013876
L_LM1_GM_63	Line	Bus_LM1_126	Bus_LM1_127	10.63	9.43	14.21	0.0013876
L_LM1_GM_67	Line	Bus_LM1_127	Bus_LM1_137	10.63	9.43	14.21	0.0013876
L_LM1_GM_68	Line	Bus_LM1_137	Bus_LM1_138	10.63	9.43	14.21	0.0013876
L_LM1_GM_69	Line	Bus_LM1_138	Bus_LM1_139	10.63	9.43	14.21	0.0013876
L_LM1_GM_73	Line	Bus_LM1_169	Bus_LM1_151	10.63	9.43	14.21	0.0013876
L_LM1_GM_74	Line	Bus_LM1_150	Bus_LM1_149	10.63	9.43	14.21	0.0013876
L_LM1_GM_75	Line	Bus_LM1_151	Bus_LM1_150	10.63	9.43	14.21	0.0013876
L_LM1_GM_76	Line	Bus_LM1_149	Bus_LM1_157	10.63	9.43	14.21	0.0013876
L_LM1_GM_77	Line	Bus_LM1_150	Bus_LM1_155	10.63	9.43	14.21	0.0013876
L_LM1_GM_78	Line	Bus_LM1_157	Bus_LM1_156	10.63	9.43	14.21	0.0013876
L_LM1_GM_79	Line	Bus_LM1_155	Bus_LM1_163	10.63	9.43	14.21	0.0013876
L_LM1_GM_80	Line	Bus_LM1_162	Bus_LM1_161	10.63	9.43	14.21	0.0013876
L_LM1_GM_81	Line	Bus_LM1_163	Bus_LM1_162	10.63	9.43	14.21	0.0013876
L_LM1_GM_83	Line	Bus_LM1_161	Bus_LM1_167	10.63	9.43	14.21	0.0013876
L_LM1_GM_93	Line	B_LM3	Bus_LM3_188	3.37	4.78	5.85	0.0007275
L_LM1_GM_95	Line	Bus_LM3_188	Bus_LM3_3	3.37	4.78	5.85	0.0007275

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_96	Line	Bus_LM3_3	Bus_LM3_5	3.37	4.78	5.85	0.0007275
L_LM1_GM_97	Line	Bus_LM3_5	Bus_LM3_7	3.37	4.78	5.85	0.0007275
L_LM1_GM_98	Line	Bus_LM3_7	Bus_LM3_9	3.37	4.78	5.85	0.0007275
L_LM1_GM_99	Line	Bus_LM3_9	Bus_LM3_11	3.37	4.78	5.85	0.0007275
L_LM1_GM_100	Line	Bus_LM3_11	Bus_LM3_13	3.37	4.78	5.85	0.0007275
L_LM1_GM_102	Line	Bus_LM3_13	Bus_LM3_188_	3.37	4.78	5.85	0.0007275
L_LM1_GM_110	Line	Bus_LM3_188_	Bus_LM3_37	3.37	4.78	5.85	0.0007275
L_LM1_GM_111	Line	Bus_LM3_32	Bus_LM3_41	10.63	9.43	14.21	0.0013876
L_LM1_GM_112	Line	Bus_LM3_33	Bus_LM3_32	10.63	9.43	14.21	0.0013876
L_LM1_GM_113	Line	Bus_LM3_34	Bus_LM3_33	3.37	4.78	5.85	0.0007275
L_LM1_GM_114	Line	Bus_LM3_35	Bus_LM3_34	3.37	4.78	5.85	0.0007275
L_LM1_GM_115	Line	Bus_LM3_36	Bus_LM3_35	3.37	4.78	5.85	0.0007275
L_LM1_GM_116	Line	Bus_LM3_37	Bus_LM3_36	3.37	4.78	5.85	0.0007275
L_LM1_GM_124	Line	Bus_LM3_33	Bus_LM3_63	3.37	4.78	5.85	0.0007275
L_LM1_GM_125	Line	Bus_LM3_63	Bus_LM3_64	3.37	4.78	5.85	0.0007275
L_LM1_GM_126	Line	Bus_LM3_64	Bus_LM3_65	3.37	4.78	5.85	0.0007275
L_LM1_GM_127	Line	Bus_LM3_65	Bus_LM3_66	3.37	4.78	5.85	0.0007275
L_LM1_GM_128	Line	Bus_LM3_66	Bus_LM3_67	3.37	4.78	5.85	0.0007275
L_LM1_GM_129	Line	Bus_LM3_67	Bus_LM3_68	10.63	9.43	14.21	0.0013876
L_LM1_GM_130	Line	Bus_LM3_68	Bus_LM3_69	10.63	9.43	14.21	0.0013876
L_LM1_GM_133	Line	Bus_LM3_69	Bus_LM3_76	10.63	9.43	14.21	0.0013876
L_LM1_GM_134	Line	Bus_LM3_76	Bus_LM3_77	10.63	9.43	14.21	0.0013876
L_LM1_GM_135	Line	Bus_LM3_77	Bus_LM3_80	10.63	9.43	14.21	0.0013876
L_LM1_GM_136	Line	Bus_LM3_80	Bus_LM3_81	10.63	9.43	14.21	0.0013876
L_LM1_GM_137	Line	Bus_LM3_81	Bus_LM3_84	10.63	9.43	14.21	0.0013876
L_LM1_GM_138	Line	Bus_LM3_67	Bus_LM3_85	10.63	9.43	14.21	0.0013876
L_LM1_GM_139	Line	Bus_LM3_85	Bus_LM3_88	10.63	9.43	14.21	0.0013876
L_LM1_GM_140	Line	Bus_LM3_88	Bus_LM3_89	10.63	9.43	14.21	0.0013876
L_LM1_GM_143	Line	Bus_LM3_89	Bus_LM3_96	10.63	9.43	14.21	0.0013876
L_LM1_GM_144	Line	Bus_LM3_96	Bus_LM3_97	10.63	9.43	14.21	0.0013876
L_LM1_GM_150	Line	Bus_LM3_67	Bus_LM3_117	3.37	4.78	5.85	0.0007275
L_LM1_GM_151	Line	Bus_LM3_114	Bus_LM3_113	3.37	4.78	5.85	0.0007275
L_LM1_GM_152	Line	Bus_LM3_115	Bus_LM3_114	3.37	4.78	5.85	0.0007275
L_LM1_GM_153	Line	Bus_LM3_116	Bus_LM3_115	3.37	4.78	5.85	0.0007275
L_LM1_GM_154	Line	Bus_LM3_117	Bus_LM3_116	3.37	4.78	5.85	0.0007275
L_LM1_GM_160	Line	Bus_LM3_115	Bus_LM3_137	10.63	9.43	14.21	0.0013876
L_LM1_GM_161	Line	Bus_LM3_134	Bus_LM3_133	10.63	9.43	14.21	0.0013876
L_LM1_GM_162	Line	Bus_LM3_135	Bus_LM3_134	10.63	9.43	14.21	0.0013876
L_LM1_GM_163	Line	Bus_LM3_136	Bus_LM3_135	10.63	9.43	14.21	0.0013876

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_164	Line	Bus_LM3_137	Bus_LM3_136	10.63	9.43	14.21	0.0013876
L_LM1_GM_166	Line	Bus_LM3_84	Bus_LM3_140	10.63	9.43	14.21	0.0013876
L_LM1_GM_168	Line	Bus_LM3_140	Bus_LM3_144	10.63	9.43	14.21	0.0013876
L_LM1_GM_169	Line	Bus_LM3_144	Bus_LM3_146	10.63	9.43	14.21	0.0013876
L_LM1_GM_172	Line	Bus_LM3_146	Bus_LM3_152	10.63	9.43	14.21	0.0013876
L_LM1_GM_174	Line	Bus_LM1_189	Bus_LM3_156	10.63	9.43	14.21	0.0013876
L_LM1_GM_175	Line	Bus_LM1_191	Bus_LM1_190	10.63	9.43	14.21	0.0013876
L_LM1_GM_176	Line	Bus_LM1_191	Bus_LM3_160	10.63	9.43	14.21	0.0013876
L_LM1_GM_177	Line	Bus_LM3_160	Bus_LM3_162	10.63	9.43	14.21	0.0013876
L_LM1_GM_178	Line	Bus_LM3_162	Bus_LM3_164	10.63	9.43	14.21	0.0013876
L_LM1_GM_179	Line	Bus_LM3_164	Bus_LM3_166	10.63	9.43	14.21	0.0013876
L_LM1_GM_181	Line	Bus_LM1_190	Bus_LM3_170	10.63	9.43	14.21	0.0013876
L_LM1_GM_183	Line	Bus_LM3_152	Bus_LM1_189	10.63	9.43	14.21	0.0013876
L_LM1_GM_185	Line	Bus_LM1_189	Bus_LM1_191	10.63	9.43	14.21	0.0013876
L_LM1_GM_187	Line	Bus_LM3_152	Bus_LM1_193	10.63	9.43	14.21	0.0013876
L_LM1_GM_189	Line	Bus_LM1_193	Bus_LM1_195	10.63	9.43	14.21	0.0013876
L_LM1_GM_190	Line	Bus_LM1_195	Bus_LM1_196	10.63	9.43	14.21	0.0013876
L_LM1_GM_191	Line	Bus_LM1_196	Bus_LM1_197	10.63	9.43	14.21	0.0013876
L_LM1_GM_192	Line	Bus_LM1_197	Bus_LM1_198	10.63	9.43	14.21	0.0013876
L_LM1_GM_194	Line	Bus_LM1_197	Bus_LM1_200	10.63	9.43	14.21	0.0013876
L_LM1_GM_196	Line	Bus_LM1_200	Bus_LM1_202	10.63	9.43	14.21	0.0013876
L_LM1_GM_197	Line	Bus_LM1_202	Bus_LM1_203	10.63	9.43	14.21	0.0013876
L_LM1_GM_198	Line	Bus_LM1_203	Bus_LM1_204	10.63	9.43	14.21	0.0013876
L_LM1_GM_203	Line	Bus_LM1_203	Bus_LM1_212	4.72	6.69	8.19	0.0010185
L_LM1_GM_204	Line	Bus_LM1_210	Bus_LM1_209	4.72	6.69	8.19	0.0010185
L_LM1_GM_205	Line	Bus_LM1_211	Bus_LM1_210	4.72	6.69	8.19	0.0010185
L_LM1_GM_206	Line	Bus_LM1_212	Bus_LM1_211	4.72	6.69	8.19	0.0010185
L_LM1_GM_208	Line	LO1 V UJUNG	Bus_LM1_215	3.37	4.78	5.85	0.0007275
L_LM1_GM_210	Line	Bus_LM1_215	Bus_LM1_217	3.37	4.78	5.85	0.0007275
L_LM1_GM_211	Line	Bus_LM1_217	Bus_LM1_218	3.37	4.78	5.85	0.0007275
L_LM1_GM_212	Line	Bus_LM1_218	Bus_LM1_219	3.37	4.78	5.85	0.0007275
L_LM1_GM_213	Line	Bus_LM1_219	Bus_LM1_220	3.37	4.78	5.85	0.0007275
L_LM1_GM_214	Line	Bus_LM1_220	Bus_LM1_221	3.37	4.78	5.85	0.0007275
L_LM1_GM_215	Line	Bus_LM1_221	Bus_LM1_222	3.37	4.78	5.85	0.0007275
L_LM1_GM_217	Line	Bus_LM1_222	Bus_LM1_224	3.37	4.78	5.85	0.0007275
L_LM1_GM_219	Line	Bus_LM1_224	Bus_LM1_226	3.37	4.78	5.85	0.0007275
L_LM1_GM_220	Line	Bus_LM1_226	Bus_LM1_227	3.37	4.78	5.85	0.0007275
L_LM1_GM_221	Line	Bus_LM1_227	Bus_LM1_228	3.37	4.78	5.85	0.0007275
L_LM1_GM_222	Line	Bus_LM1_228	Bus_LM1_229	3.37	4.78	5.85	0.0007275

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L_LM1_GM_223	Line	Bus_LM1_229	Bus_LM1_230	6.29	8.99	10.97	0.0014646
L_LM1_GM_224	Line	Bus_LM1_230	Bus_LM1_231	6.29	8.99	10.97	0.0014646
L_LM1_GM_225	Line	Bus_LM1_229	Bus_LM1_232	3.37	4.78	5.85	0.0007275
L_LM1_GM_226	Line	Bus_LM1_232	Bus_LM1_233	3.37	4.78	5.85	0.0007275
L_LM1_GM_229	Line	Bus_LM1_233	Bus_LM1_237	3.37	4.78	5.85	0.0007275
L_LM1_GM_230	Line	Bus_LM1_237	Bus_LM1_236	3.37	4.78	5.85	0.0007275
L_LM1_GM_231	Line	Bus_LM1_236	Bus_LM1_239	3.37	4.78	5.85	0.0007275
L_LM1_GM_232	Line	Bus_LM1_239	Bus_LM1_238	3.37	4.78	5.85	0.0007275
L_LM1_GM_233	Line	Bus_LM1_238	Bus_LM1_241	3.37	4.78	5.85	0.0007275
L_LM1_GM_234	Line	Bus_LM1_241	Bus_LM1_240	3.37	4.78	5.85	0.0007275
L_LM1_GM_235	Line	Bus_LM1_240	Bus_LM1_243	3.37	4.78	5.85	0.0007275
L_LM1_GM_236	Line	Bus_LM1_243	Bus_LM1_242	10.63	9.43	14.21	0.0013876
L_LM1_GM_237	Line	Bus_LM1_242	Bus_LM1_245	10.63	9.43	14.21	0.0013876
L_LM1_GM_238	Line	Bus_LM1_243	Bus_LM1_244	3.37	4.78	5.85	0.0007275
L_LM1_GM_241	Line	Bus_LM1_244	Bus_LM1_249	3.37	4.78	5.85	0.0007275
L_LM1_GM_246	Line	Bus_LM1_251	Bus_LM1_253	4.25	3.77	5.68	0.0005551
L_LM1_GM_247	Line	Bus_LM1_253	Bus_LM1_254	4.25	3.77	5.68	0.0005551
L_LM1_GM_248	Line	Bus_LM1_254	Bus_LM1_255	4.25	3.77	5.68	0.0005551
L_LM1_GM_251	Line	Bus_LM1_255	Bus_LM1_259	4.25	3.77	5.68	0.0005551
L_LM1_GM_252	Line	Bus_LM1_259	Bus_LM1_258	4.25	3.77	5.68	0.0005551
L_LM1_GM_257	Line	Bus_LM1_258	Bus_LM1_267	4.25	3.77	5.68	0.0005551
L_LM1_GM_258	Line	Bus_LM1_265	Bus_LM1_264	4.25	3.77	5.68	0.0005551
L_LM1_GM_259	Line	Bus_LM1_266	Bus_LM1_265	4.25	3.77	5.68	0.0005551
L_LM1_GM_260	Line	Bus_LM1_267	Bus_LM1_266	4.25	3.77	5.68	0.0005551
L_LM1_GM_263	Line	Bus_LM1_264	Bus_LM1_270	10.63	9.43	14.21	0.0013876
L_LM1_GM_264	Line	Bus_LM1_270	Bus_LM1_271	10.63	9.43	14.21	0.0013876
L_LM1_GM_267	Line	Bus_LM1_264	Bus_LM1_275	4.25	3.77	5.68	0.0005551
L_LM1_GM_268	Line	Bus_LM1_278	Bus_LM1_274	10.63	9.43	14.21	0.0013876
L_LM1_GM_270	Line	Bus_LM1_274	Bus_LM1_277	10.63	9.43	14.21	0.0013876
L_LM1_GM_272	Line	Bus_LM1_275	Bus_LM1_278	4.25	3.77	5.68	0.0005551
L_LM1_GM_275	Line	Bus_LM1_282	Bus_LM1_281	10.63	9.43	14.21	0.0013876
L_LM1_GM_276	Line	Bus_LM1_277	Bus_LM1_282	10.63	9.43	14.21	0.0013876
L_LM1_GM_277	Line	Bus_LM1_284	Bus_LM1_283	10.63	9.43	14.21	0.0013876
L_LM1_GM_278	Line	Bus_LM1_281	Bus_LM1_284	10.63	9.43	14.21	0.0013876
L_LM1_GM_279	Line	Bus_LM1_278	Bus_LM1_285	10.63	9.43	14.21	0.0013876
L_LM1_GM_280	Line	Bus_LM1_283	Bus_LM1_286	10.63	9.43	14.21	0.0013876
L_LM1_GM_282	Line	Bus_LM1_285	Bus_LM1_288	10.63	9.43	14.21	0.0013876
L_LM1_GM_286	Line	Bus_LM1_278	Bus_LM1_294	10.63	9.43	14.21	0.0013876
L_LM1_GM_287	Line	Bus_LM1_293	Bus_LM1_292	10.63	9.43	14.21	0.0013876

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L_LM1_GM_288	Line	Bus_LM1_294	Bus_LM1_293	10.63	9.43	14.21	0.0013876
L_LM1_GM_292	Line	Bus_LM1_278	Bus_LM1_300	4.25	3.77	5.68	0.0005551
L_LM1_GM_293	Line	Bus_LM1_299	Bus_LM1_298	4.25	3.77	5.68	0.0005551
L_LM1_GM_294	Line	Bus_LM1_300	Bus_LM1_299	4.25	3.77	5.68	0.0005551
L_LM1_GM_296	Line	Bus_LM1_298	Bus_LM1_307	4.25	3.77	5.68	0.0005551
L_LM1_GM_300	Line	Bus_LM1_307	Bus_LM1_306	10.63	9.43	14.21	0.0013876
L_LM1_GM_301	Line	Bus_LM1_305	Bus_LM1_304	10.63	9.43	14.21	0.0013876
L_LM1_GM_302	Line	Bus_LM1_306	Bus_LM1_305	10.63	9.43	14.21	0.0013876
L_LM1_GM_305	Line	Bus_LM1_307	Bus_LM1_309	4.25	3.77	5.68	0.0005551
L_LM1_GM_306	Line	Bus_LM1_309	Bus_LM1_322	4.25	3.77	5.68	0.0005551
L_LM1_GM_309	Line	Bus_LM1_309	Bus_LM1_313	10.63	9.43	14.21	0.0013876
L_LM1_GM_310	Line	Bus_LM1_313	Bus_LM1_312	10.63	9.43	14.21	0.0013876
L_LM1_GM_315	Line	Bus_LM1_319	Bus_LM1_318	10.63	9.43	14.21	0.0013876
L_LM1_GM_316	Line	Bus_LM1_320	Bus_LM1_319	10.63	9.43	14.21	0.0013876
L_LM1_GM_317	Line	Bus_LM1_321	Bus_LM1_320	10.63	9.43	14.21	0.0013876
L_LM1_GM_318	Line	Bus_LM1_322	Bus_LM1_321	10.63	9.43	14.21	0.0013876
L_LM1_GM_323	Line	Bus_LM1_328	Bus_LM1_327	4.25	3.77	5.68	0.0005551
L_LM1_GM_324	Line	Bus_LM1_329	Bus_LM1_328	4.25	3.77	5.68	0.0005551
L_LM1_GM_325	Line	Bus_LM1_330	Bus_LM1_329	4.25	3.77	5.68	0.0005551
L_LM1_GM_326	Line	Bus_LM1_322	Bus_LM1_330	4.25	3.77	5.68	0.0005551
L_LM1_GM_331	Line	Bus_LM1_336	Bus_LM1_335	10.63	9.43	14.21	0.0013876
L_LM1_GM_332	Line	Bus_LM1_337	Bus_LM1_336	10.63	9.43	14.21	0.0013876
L_LM1_GM_333	Line	Bus_LM1_338	Bus_LM1_337	10.63	9.43	14.21	0.0013876
L_LM1_GM_334	Line	Bus_LM1_327	Bus_LM1_338	10.63	9.43	14.21	0.0013876
L_LM1_GM_339	Line	Bus_LM1_335	Bus_LM1_343	10.63	9.43	14.21	0.0013876
L_LM1_GM_340	Line	Bus_LM1_343	Bus_LM1_344	10.63	9.43	14.21	0.0013876
L_LM1_GM_341	Line	Bus_LM1_344	Bus_LM1_346	10.63	9.43	14.21	0.0013876
L_LM1_GM_342	Line	Bus_LM1_375	Bus_LM1_345	4.25	3.77	5.68	0.0005551
L_LM1_GM_351	Line	Bus_LM1_359	Bus_LM1_353	4.25	3.77	5.68	0.0005551
L_LM1_GM_352	Line	Bus_LM1_355	Bus_LM1_354	10.63	9.43	14.21	0.0013876
L_LM1_GM_353	Line	Bus_LM1_356	Bus_LM1_355	10.63	9.43	14.21	0.0013876
L_LM1_GM_354	Line	Bus_LM1_357	Bus_LM1_356	10.63	9.43	14.21	0.0013876
L_LM1_GM_355	Line	Bus_LM1_358	Bus_LM1_357	10.63	9.43	14.21	0.0013876
L_LM1_GM_356	Line	Bus_LM1_327	Bus_LM1_358	10.63	9.43	14.21	0.0013876
L_LM1_GM_357	Line	Bus_LM1_327	Bus_LM1_359	4.25	3.77	5.68	0.0005551
L_LM1_GM_359	Line	Bus_LM1_353	Bus_LM1_361	4.25	3.77	5.68	0.0005551
L_LM1_GM_360	Line	Bus_LM1_361	Bus_LM1_362	4.25	3.77	5.68	0.0005551
L_LM1_GM_361	Line	Bus_LM1_362	Bus_LM1_369	4.25	3.77	5.68	0.0005551
L_LM1_GM_365	Line	Bus_LM1_367	Bus_LM1_366	10.63	9.43	14.21	0.0013876

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_366	Line	Bus_LM1_369	Bus_LM1_367	10.63	9.43	14.21	0.0013876
L_LM1_GM_367	Line	Bus_LM1_369	Bus_LM1_368	10.63	9.43	14.21	0.0013876
L_LM1_GM_372	Line	Bus_LM1_376	Bus_LM1_375	4.25	3.77	5.68	0.0005551
L_LM1_GM_373	Line	Bus_LM1_377	Bus_LM1_376	4.25	3.77	5.68	0.0005551
L_LM1_GM_374	Line	Bus_LM1_369	Bus_LM1_377	4.25	3.77	5.68	0.0005551
L_LM1_GM_376	Line	Bus_LM1_345	Bus_LM1_380	4.25	3.77	5.68	0.0005551
L_LM1_GM_379	Line	Bus_LM1_384	Bus_LM1_383	4.25	3.77	5.68	0.0005551
L_LM1_GM_380	Line	Bus_LM1_380	Bus_LM1_384	4.25	3.77	5.68	0.0005551
L_LM1_GM_381	Line	Bus_LM1_386	Bus_LM1_385	10.63	9.43	14.21	0.0013876
L_LM1_GM_382	Line	Bus_LM1_380	Bus_LM1_386	10.63	9.43	14.21	0.0013876
L_LMT1_GMT1	Line	B_MR6_GMT130	B_LMT1_GMT3	9.18	6.69	11.36	0.0009511
L_LMT1_GMT2	Line	B_LMT1_GMT3	B_LMT1_GMT1	9.18	6.69	11.36	0.0009511
L_LMT1_GMT5	Line	B_LMT1_GMT9	B_LMT1_GMT8	9.18	6.69	11.36	0.0009511
L_LMT1_GMT6	Line	B_LMT1_GMT3	B_LMT1_GMT9	9.18	6.69	11.36	0.0009511
L_LMT1_GMT11	Line	B_LMT1_GMT21	B_LMT1_GMT17	9.18	6.69	11.36	0.0009511
L_LMT1_GMT12	Line	B_LMT1_GMT9	B_LMT1_GMT21	9.18	6.69	11.36	0.0009511
L_LMT1_GMT13	Line	B_LMT1_GMT20	B_LMT1_GMT19	9.18	6.69	11.36	0.0009511
L_LMT1_GMT14	Line	B_LMT1_GMT21	B_LMT1_GMT20	9.18	6.69	11.36	0.0009511
L_LMT1_GMT18	Line	B_LMT1_GMT20	B_LMT1_GMT27	9.18	6.69	11.36	0.0009511
L_LMT1_GMT19	Line	B_LMT1_GMT27	B_LMT1_GMT28	9.18	6.69	11.36	0.0009511
L_LMT1_GMT22	Line	B_LMT1_GMT34	B_LMT1_GMT33	9.18	6.69	11.36	0.0009511
L_LMT1_GMT23	Line	B_LMT1_GMT34	B_LMT1_GMT28	9.18	6.69	11.36	0.0009511
L_LMT1_GMT24	Line	B_LMT1_GMT27	B_LMT1_GMT35	9.18	6.69	11.36	0.0009511
L_LMT1_GMT25	Line	B_LMT1_GMT42	B_LMT1_GMT35	9.18	6.69	11.36	0.0009511
L_LMT1_GMT26	Line	B_LMT1_GMT35	B_LMT1_GMT61	9.18	6.69	11.36	0.0009511
L_LMT1_GMT30	Line	B_LMT1_GMT42	B_LMT1_GMT41	9.18	6.69	11.36	0.0009511
L_LMT1_GMT32	Line	B_LMT1_GMT41	B_LMT1_GMT46	9.18	6.69	11.36	0.0009511
L_LMT1_GMT33	Line	B_LMT1_GMT46	B_LMT1_GMT48	9.18	6.69	11.36	0.0009511
L_LMT1_GMT37	Line	B_LMT1_GMT61	B_LMT1_GMT60	9.18	6.69	11.36	0.0009511
L_LMT1_GMT38	Line	B_LMT1_GMT59	B_LMT1_GMT58	9.18	6.69	11.36	0.0009511
L_LMT1_GMT39	Line	B_LMT1_GMT60	B_LMT1_GMT59	9.18	6.69	11.36	0.0009511
L_LMT1_GMT42	Line	B_LMT1_GMT58	B_LMT1_GMT69	9.18	6.69	11.36	0.0009511
L_LMT1_GMT43	Line	B_LMT1_GMT69	B_LMT1_GMT68	9.18	6.69	11.36	0.0009511
L_LMT1_GMT44	Line	B_MR6_GMT130	B_LMT1_GMT80	9.18	6.69	11.36	0.0009511
L_LMT1_GMT48	Line	B_LMT1_GMT80	B_LMT1_GMT79	9.18	6.69	11.36	0.0009511
L_LMT1_GMT49	Line	B_LMT1_GMT78	B_LMT1_GMT77	9.18	6.69	11.36	0.0009511
L_LMT1_GMT50	Line	B_LMT1_GMT78	B_LMT1_GMT79	9.18	6.69	11.36	0.0009511
L_LMT1_GMT53	Line	B_LMT1_GMT86	B_LMT1_GMT85	9.18	6.69	11.36	0.0009511
L_LMT1_GMT54	Line	B_LMT1_GMT86	B_LMT1_GMT78	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT1_GMT57	Line	B_LMT1_GMT92	B_LMT1_GMT91	9.18	6.69	11.36	0.0009511
L_LMT1_GMT58	Line	B_LMT1_GMT92	B_LMT1_GMT80	9.18	6.69	11.36	0.0009511
L_LMT1_GMT62	Line	B_LMT1_GMT101	B_LMT1_GMT100	9.18	6.69	11.36	0.0009511
L_LMT1_GMT63	Line	B_LMT1_GMT102	B_LMT1_GMT101	9.18	6.69	11.36	0.0009511
L_LMT1_GMT64	Line	B_LMT1_GMT102	B_LMT1_GMT103	9.18	6.69	11.36	0.0009511
L_LMT1_GMT65	Line	B_LMT1_GMT92	B_LMT1_GMT103	9.18	6.69	11.36	0.0009511
L_LMT1_GMT68	Line	B_LMT1_GMT109	B_LMT1_GMT108	9.18	6.69	11.36	0.0009511
L_LMT1_GMT69	Line	B_LMT1_GMT109	B_LMT1_GMT103	9.18	6.69	11.36	0.0009511
L_LMT1_GMT70	Line	B_LMT1_GMT109	B_LMT1_GMT110	9.18	6.69	11.36	0.0009511
L_LMT1_GMT71	Line	B_LMT1_GMT110	B_LMT1_GMT121	9.18	6.69	11.36	0.0009511
L_LMT1_GMT75	Line	B_LMT1_GMT116	B_LMT1_GMT121	9.18	6.69	11.36	0.0009511
L_LMT1_GMT76	Line	B_LMT1_GMT116	B_LMT1_GMT120	9.18	6.69	11.36	0.0009511
L_LMT1_GMT77	Line	B_LMT1_GMT120	B_LMT1_GMT119	9.18	6.69	11.36	0.0009511
L_LMT1_GMT80	Line	B_LMT1_GMT127	B_LMT1_GMT126	9.18	6.69	11.36	0.0009511
L_LMT1_GMT81	Line	B_LMT1_GMT127	B_LMT1_GMT121	9.18	6.69	11.36	0.0009511
L_LMT1_GMT82	Line	B_LMT1_GMT130	B_LMT1_GMT129	9.18	6.69	11.36	0.0009511
L_LMT1_GMT83	Line	B_LMT1_GMT130	B_LMT1_GMT127	9.18	6.69	11.36	0.0009511
L_LMT1_GMT88	Line	B_LMT1_GMT142	B_LMT1_GMT138	9.18	6.69	11.36	0.0009511
L_LMT1_GMT89	Line	B_LMT1_GMT142	B_LMT1_GMT130	9.18	6.69	11.36	0.0009511
L_LMT1_GMT90	Line	B_LMT1_GMT141	B_LMT1_GMT140	9.18	6.69	11.36	0.0009511
L_LMT1_GMT91	Line	B_LMT1_GMT141	B_LMT1_GMT142	9.18	6.69	11.36	0.0009511
L_LMT1_GMT94	Line	B_LMT1_GMT148	B_LMT1_GMT147	9.18	6.69	11.36	0.0009511
L_LMT1_GMT95	Line	B_LMT1_GMT148	B_LMT1_GMT141	9.18	6.69	11.36	0.0009511
L_LMT1_GMT99	Line	B_LMT1_GMT152	B_LMT1_GMT157	9.18	6.69	11.36	0.0009511
L_LMT1_GMT100	Line	B_LMT1_GMT152	B_LMT1_GMT154	9.18	6.69	11.36	0.0009511
L_LMT1_GMT101	Line	B_LMT1_GMT154	B_LMT1_GMT155	9.18	6.69	11.36	0.0009511
L_LMT1_GMT102	Line	B_LMT1_GMT148	B_LMT1_GMT157	9.18	6.69	11.36	0.0009511
L_LMT1_GMT105	Line	B_LMT1_GMT155	B_LMT1_GMT163	9.18	6.69	11.36	0.0009511
L_LMT1_GMT106	Line	B_LMT1_GMT163	B_LMT1_GMT164	9.18	6.69	11.36	0.0009511
L_LMT1_GMT109	Line	B_LMT1_GMT171	B_LMT1_GMT170	9.18	6.69	11.36	0.0009511
L_LMT1_GMT110	Line	B_LMT1_GMT171	B_LMT1_GMT157	9.18	6.69	11.36	0.0009511
L_LMT1_GMT116	Line	B_LMT1_GMT180	B_LMT1_GMT181	9.18	6.69	11.36	0.0009511
L_LMT1_GMT117	Line	B_LMT1_GMT171	B_LMT1_GMT183	9.18	6.69	11.36	0.0009511
L_LMT1_GMT118	Line	B_LMT1_GMT183	B_LMT1_GMT181	9.18	6.69	11.36	0.0009511
L_LMT1_GMT121	Line	B_LMT1_GMT189	B_LMT1_GMT188	9.18	6.69	11.36	0.0009511
L_LMT1_GMT122	Line	B_LMT1_GMT189	B_LMT1_GMT183	9.18	6.69	11.36	0.0009511
L_LMT1_GMT123	Line	B_LMT1_GMT192	B_LMT1_GMT191	9.18	6.69	11.36	0.0009511
L_LMT1_GMT124	Line	B_LMT1_GMT192	B_LMT1_GMT189	9.18	6.69	11.36	0.0009511
L_LMT1_GMT125	Line	B_LMT1_GMT195	B_LMT1_GMT194	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT1_GMT126	Line	B_LMT1_GMT195	B_LMT1_GMT192	9.18	6.69	11.36	0.0009511
L_LMT1_GMT130	Line	B_LMT1_GMT199	B_LMT1_GMT110	9.18	6.69	11.36	0.0009511
L_LMT1_GMT131	Line	B_LMT1_GMT199	B_LMT1_GMT201	9.18	6.69	11.36	0.0009511
L_LMT1_GMT132	Line	B_LMT1_GMT201	B_LMT1_GMT202	9.18	6.69	11.36	0.0009511
L_LMT1_GMT135	Line	B_LMT1_GMT209	B_LMT1_GMT208	9.18	6.69	11.36	0.0009511
L_LMT1_GMT136	Line	B_LMT1_GMT209	B_LMT1_GMT110	9.18	6.69	11.36	0.0009511
L_LMT1_GMT140	Line	B_LMT1_GMT215	B_LMT1_GMT209	9.18	6.69	11.36	0.0009511
L_LMT1_GMT142	Line	B_LMT1_GMT219	B_LMT1_GMT215	9.18	6.69	11.36	0.0009511
L_LMT1_GMT145	Line	B_LMT1_GMT225	B_LMT1_GMT224	9.18	6.69	11.36	0.0009511
L_LMT1_GMT146	Line	B_LMT1_GMT225	B_LMT1_GMT219	9.18	6.69	11.36	0.0009511
L_LMT1_GMT147	Line	B_LMT1_GMT228	B_LMT1_GMT227	9.18	6.69	11.36	0.0009511
L_LMT1_GMT148	Line	B_LMT1_GMT228	B_LMT1_GMT225	9.18	6.69	11.36	0.0009511
L_LMT1_GMT152	Line	B_LMT1_GMT238	B_LMT1_GMT228	9.18	6.69	11.36	0.0009511
L_LMT1_GMT153	Line	B_LMT1_GMT237	B_LMT1_GMT238	9.18	6.69	11.36	0.0009511
L_LMT1_GMT156	Line	B_LMT1_GMT245	B_LMT1_GMT237	9.18	6.69	11.36	0.0009511
L_LMT1_GMT157	Line	B_LMT1_GMT244	B_LMT1_GMT245	9.18	6.69	11.36	0.0009511
L_LMT1_GMT160	Line	B_LMT1_GMT252	B_LMT1_GMT251	9.18	6.69	11.36	0.0009511
L_LMT1_GMT161	Line	B_LMT1_GMT252	B_LMT1_GMT244	9.18	6.69	11.36	0.0009511
L_LMT1_GMT162	Line	B_LMT1_GMT255	B_LMT1_GMT254	9.18	6.69	11.36	0.0009511
L_LMT1_GMT163	Line	B_LMT1_GMT255	B_LMT1_GMT252	9.18	6.69	11.36	0.0009511
L_LMT2_GMT1	Line	B_LMT2_1	B_LMT2_GMT1	9.18	6.69	11.36	0.0009511
L_LMT2_GMT2	Line	B_LMT2_GMT1	B_LMT2_GMT3	9.18	6.69	11.36	0.0009511
L_LMT2_GMT4	Line	B_LMT2_GMT3	B_LMT2_GMT7	9.18	6.69	11.36	0.0009511
L_LMT2_GMT6	Line	B_LMT2_GMT7	B_LMT2_GMT11	9.18	6.69	11.36	0.0009511
L_LMT2_GMT7	Line	B_LMT2_GMT11	B_LMT2_GMT12	9.18	6.69	11.36	0.0009511
L_LMT2_GMT10	Line	B_LMT2_GMT11	B_LMT2_GMT16	9.18	6.69	11.36	0.0009511
L_LMT2_GMT11	Line	B_LMT2_GMT16	B_LMT2_GMT18	9.18	6.69	11.36	0.0009511
L_LMT2_GMT14	Line	B_LMT2_GMT16	B_LMT2_GMT26	9.18	6.69	11.36	0.0009511
L_LMT2_GMT15	Line	B_LMT2_GMT26	B_LMT2_GMT25	9.18	6.69	11.36	0.0009511
L_LMT2_GMT16	Line	B_LMT2_GMT25	B_LMT2_GMT30	9.18	6.69	11.36	0.0009511
L_LMT2_GMT17	Line	B_LMT2_GMT30	B_LMT2_GMT29	9.18	6.69	11.36	0.0009511
L_LMT2_GMT18	Line	B_LMT2_GMT29	B_LMT2_GMT35	9.18	6.69	11.36	0.0009511
L_LMT2_GMT20	Line	B_LMT2_GMT35	B_LMT2_GMT34	9.18	6.69	11.36	0.0009511
L_LMT2_GMT23	Line	B_LMT2_GMT34	B_LMT2_GMT39	9.18	6.69	11.36	0.0009511
L_LMT2_GMT24	Line	B_LMT2_GMT39	B_LMT2_GMT41	9.18	6.69	11.36	0.0009511
L_LMT2_GMT26	Line	B_LMT2_GMT39	B_LMT2_GMT45	9.18	6.69	11.36	0.0009511
L_LMT2_GMT27	Line	B_LMT2_GMT45	B_LMT2_GMT47	9.18	6.69	11.36	0.0009511
L_LMT2_GMT30	Line	B_LMT2_GMT47	B_LMT2_GMT55	9.18	6.69	11.36	0.0009511
L_LMT2_GMT31	Line	B_LMT2_GMT55	B_LMT2_GMT54	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT2_GMT34	Line	B_LMT2_GMT54	B_LMT2_GMT59	9.18	6.69	11.36	0.0009511
L_LMT2_GMT35	Line	B_LMT2_GMT59	B_LMT2_GMT61	9.18	6.69	11.36	0.0009511
L_LMT2_GMT38	Line	B_LMT2_GMT59	B_LMT2_GMT67	9.18	6.69	11.36	0.0009511
L_LMT2_GMT39	Line	B_LMT2_GMT67	B_LMT2_GMT69	9.18	6.69	11.36	0.0009511
L_LMT2_GMT40	Line	B_LMT2_GMT69	B_LMT2_GMT70	9.18	6.69	11.36	0.0009511
L_LMT2_GMT41	Line	B_LMT2_GMT70	B_LMT2_GMT71	9.18	6.69	11.36	0.0009511
L_LMT2_GMT44	Line	B_LMT2_GMT71	B_LMT2_GMT75	9.18	6.69	11.36	0.0009511
L_LMT2_GMT45	Line	B_LMT2_GMT75	B_LMT2_GMT77	9.18	6.69	11.36	0.0009511
L_LMT2_GMT48	Line	B_LMT2_GMT75	B_LMT2_GMT81	9.18	6.69	11.36	0.0009511
L_LMT2_GMT49	Line	B_LMT2_GMT81	B_LMT2_GMT83	9.18	6.69	11.36	0.0009511
L_LMT2_GMT54	Line	B_LMT2_GMT81	B_LMT2_GMT93	9.18	6.69	11.36	0.0009511
L_LMT2_GMT55	Line	B_LMT2_GMT92	B_LMT2_GMT91	9.18	6.69	11.36	0.0009511
L_LMT2_GMT56	Line	B_LMT2_GMT93	B_LMT2_GMT92	9.18	6.69	11.36	0.0009511
L_LMT2_GMT57	Line	B_LMT2_GMT93	B_LMT2_GMT95	9.18	6.69	11.36	0.0009511
L_LMT2_GMT66	Line	B_LMT2_GMT92	B_LMT2_GMT117	9.18	6.69	11.36	0.0009511
L_LMT2_GMT67	Line	B_LMT2_GMT116	B_LMT2_GMT109	9.18	6.69	11.36	0.0009511
L_LMT2_GMT68	Line	B_LMT2_GMT115	B_LMT2_GMT111	9.18	6.69	11.36	0.0009511
L_LMT2_GMT69	Line	B_LMT2_GMT114	B_LMT2_GMT113	9.18	6.69	11.36	0.0009511
L_LMT2_GMT70	Line	B_LMT2_GMT115	B_LMT2_GMT114	9.18	6.69	11.36	0.0009511
L_LMT2_GMT71	Line	B_LMT2_GMT116	B_LMT2_GMT115	9.18	6.69	11.36	0.0009511
L_LMT2_GMT72	Line	B_LMT2_GMT117	B_LMT2_GMT116	9.18	6.69	11.36	0.0009511
L_LMT2_GMT73	Line	B_LMT2_GMT117	B_LMT2_GMT119	9.18	6.69	11.36	0.0009511
L_LMT2_GMT76	Line	B_LMT2_GMT125	B_LMT2_GMT124	9.18	6.69	11.36	0.0009511
L_LMT2_GMT77	Line	B_LMT2_GMT114	B_LMT2_GMT125	9.18	6.69	11.36	0.0009511
L_LMT2_GMT80	Line	B_LMT2_GMT70	B_LMT2_GMT131	9.18	6.69	11.36	0.0009511
L_LMT2_GMT81	Line	B_LMT2_GMT131	B_LMT2_GMT133	9.18	6.69	11.36	0.0009511
L_LMT2_GMT88	Line	B_LMT2_GMT133	B_LMT2_GMT145	9.18	6.69	11.36	0.0009511
L_LMT2_GMT89	Line	B_LMT2_GMT145	B_LMT2_GMT147	9.18	6.69	11.36	0.0009511
L_LMT2_GMT92	Line	B_LMT2_GMT145	B_LMT2_GMT153	9.18	6.69	11.36	0.0009511
L_LMT2_GMT93	Line	B_LMT2_GMT153	B_LMT2_GMT155	9.18	6.69	11.36	0.0009511
L_LMT2_GMT95	Line	B_LMT2_GMT155	B_LMT2_GMT159	9.18	6.69	11.36	0.0009511
L_LMT2_GMT96	Line	B_LMT2_GMT159	B_LMT2_GMT161	9.18	6.69	11.36	0.0009511
L_LMT2_GMT97	Line	B_LMT2_GMT161	B_LMT2_GMT160	9.18	6.69	11.36	0.0009511
L_LMT2_GMT98	Line	B_LMT2_GMT161	B_LMT2_GMT168	9.18	6.69	11.36	0.0009511
L_LMT2_GMT101	Line	B_LMT2_GMT167	B_LMT2_GMT166	9.18	6.69	11.36	0.0009511
L_LMT2_GMT102	Line	B_LMT2_GMT168	B_LMT2_GMT167	9.18	6.69	11.36	0.0009511
L_LMT2_GMT107	Line	B_LMT2_GMT180	B_LMT2_GMT176	9.18	6.69	11.36	0.0009511
L_LMT2_GMT108	Line	B_LMT2_GMT179	B_LMT2_GMT178	9.18	6.69	11.36	0.0009511
L_LMT2_GMT109	Line	B_LMT2_GMT180	B_LMT2_GMT179	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT2_GMT110	Line	B_LMT2_GMT181	B_LMT2_GMT180	9.18	6.69	11.36	0.0009511
L_LMT2_GMT111	Line	B_LMT2_GMT167	B_LMT2_GMT181	9.18	6.69	11.36	0.0009511
L_LMT2_GMT116	Line	B_LMT2_GMT193	B_LMT2_GMT189	9.18	6.69	11.36	0.0009511
L_LMT2_GMT117	Line	B_LMT2_GMT192	B_LMT2_GMT191	9.18	6.69	11.36	0.0009511
L_LMT2_GMT118	Line	B_LMT2_GMT193	B_LMT2_GMT192	9.18	6.69	11.36	0.0009511
L_LMT2_GMT119	Line	B_LMT2_GMT181	B_LMT2_GMT193	9.18	6.69	11.36	0.0009511
L_LMT2_GMT120	Line	B_LMT2_GMT199	B_LMT2_GMT195	9.18	6.69	11.36	0.0009511
L_LMT2_GMT121	Line	B_LMT2_GMT198	B_LMT2_GMT197	9.18	6.69	11.36	0.0009511
L_LMT2_GMT122	Line	B_LMT2_GMT199	B_LMT2_GMT198	9.18	6.69	11.36	0.0009511
L_LMT2_GMT123	Line	B_LMT2_GMT192	B_LMT2_GMT199	9.18	6.69	11.36	0.0009511
L_LMT2_GMT126	Line	B_LMT2_GMT205	B_LMT2_GMT204	9.18	6.69	11.36	0.0009511
L_LMT2_GMT127	Line	B_LMT2_GMT198	B_LMT2_GMT205	9.18	6.69	11.36	0.0009511
L_LMT2_GMT128	Line	B_LMT2_GMT208	B_LMT2_GMT207	9.18	6.69	11.36	0.0009511
L_LMT2_GMT129	Line	B_LMT2_GMT205	B_LMT2_GMT208	9.18	6.69	11.36	0.0009511
L_LMT2_GMT134	Line	B_LMT2_GMT221	B_LMT2_GMT218	9.18	6.69	11.36	0.0009511
L_LMT2_GMT135	Line	B_LMT2_GMT217	B_LMT2_GMT216	9.18	6.69	11.36	0.0009511
L_LMT2_GMT136	Line	B_LMT2_GMT218	B_LMT2_GMT217	9.18	6.69	11.36	0.0009511
L_LMT2_GMT137	Line	B_LMT2_GMT218	B_LMT2_GMT220	9.18	6.69	11.36	0.0009511
L_LMT2_GMT139	Line	B_LMT2_GMT208	B_LMT2_GMT221	9.18	6.69	11.36	0.0009511
L_LMT2_GMT144	Line	B_LMT2_GMT233	B_LMT2_GMT229	9.18	6.69	11.36	0.0009511
L_LMT2_GMT145	Line	B_LMT2_GMT232	B_LMT2_GMT231	9.18	6.69	11.36	0.0009511
L_LMT2_GMT146	Line	B_LMT2_GMT233	B_LMT2_GMT232	9.18	6.69	11.36	0.0009511
L_LMT2_GMT147	Line	B_LMT2_GMT221	B_LMT2_GMT233	9.18	6.69	11.36	0.0009511
L_LMT2_GMT154	Line	B_LMT2_GMT251	B_LMT2_GMT244	9.18	6.69	11.36	0.0009511
L_LMT2_GMT155	Line	B_LMT2_GMT250	B_LMT2_GMT246	9.18	6.69	11.36	0.0009511
L_LMT2_GMT156	Line	B_LMT2_GMT249	B_LMT2_GMT248	9.18	6.69	11.36	0.0009511
L_LMT2_GMT157	Line	B_LMT2_GMT250	B_LMT2_GMT249	9.18	6.69	11.36	0.0009511
L_LMT2_GMT158	Line	B_LMT2_GMT251	B_LMT2_GMT250	9.18	6.69	11.36	0.0009511
L_LMT2_GMT159	Line	B_LMT2_GMT221	B_LMT2_GMT251	9.18	6.69	11.36	0.0009511
L_LMT2_GMT163	Line	B_LMT2_GMT249	B_LMT2_GMT259	9.18	6.69	11.36	0.0009511
L_LMT2_GMT164	Line	B_LMT2_GMT263	B_LMT2_GMT262	9.18	6.69	11.36	0.0009511
L_LMT2_GMT165	Line	B_LMT2_GMT259	B_LMT2_GMT263	9.18	6.69	11.36	0.0009511
L_LY02_01-3	Line	B_MR04_GM	B_MR04_GM1	5.32	4.71	7.10	0.0006937
L_LY02_2-3	Line	B_MR04_GM1	B_MR04_GM2	5.32	4.71	7.10	0.0006937
L_LY02_3-3	Line	B_MR04_GM	B_MR04_GM3	3.14	4.49	5.48	0.0007322
L_LY02_4-3	Line	B_MR04_GM4	B_MR04_GM5	5.32	4.71	7.10	0.0006937
L_LY02_6-3	Line	B_MR04_GM3	B_MR04_GM4	5.32	4.71	7.10	0.0006937
L_LY02_8-3	Line	B_MR04_GM3	B_MR04_GM6	5.32	4.71	7.10	0.0006937
L_LY02_9-3	Line	B_MR04_GM6	B_MR04_GM7	5.32	4.71	7.10	0.0006937

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LY02_11-3	Line	B_MR04_GM7	B_MR04_GM8	5.32	4.71	7.10	0.0006937
L_LY02_12-3	Line	B_MR04_GM8	B_MR04_GM9	5.32	4.71	7.10	0.0006937
L_LY02_14-3	Line	B_MR04_GM9	B_MR04_GM10	5.32	4.71	7.10	0.0006937
L_LY02_15-3	Line	B_MR04_GM10	B_MR04_GM11	5.32	4.71	7.10	0.0006937
L_LY02_16-3	Line	B_MR04_GM22	B_MR04_GM13	5.32	4.71	7.10	0.0006937
L_LY02_18-3	Line	B_MR04_GM11	B_MR04_GM12	5.32	4.71	7.10	0.0006937
L_LY02_19-3	Line	B_MR04_GM13	B_MR04_GM14	5.32	4.71	7.10	0.0006937
L_LY02_21-3	Line	B_MR04_GM16	B_MR04_GM15	5.32	4.71	7.10	0.0006937
L_LY02_23-3	Line	B_MR04_GM22	B_MR04_GM16	5.32	4.71	7.10	0.0006937
L_LY02_24-3	Line	B_MR04_GM16	B_MR04_GM17	5.32	4.71	7.10	0.0006937
L_LY02_26-3	Line	B_MR04_GM17	B_MR04_GM18	5.32	4.71	7.10	0.0006937
L_LY02_27-3	Line	B_MR04_GM22	B_MR04_GM19	5.32	4.71	7.10	0.0006937
L_LY02_29-3	Line	B_MR04_GM19	B_MR04_GM20	5.32	4.71	7.10	0.0006937
L_LY02_30-3	Line	B_MR04_GM20	B_MR04_GM21	5.32	4.71	7.10	0.0006937
L_LY02_32-3	Line	B_MR04_GM23	B_MR04_GM22	5.32	4.71	7.10	0.0006937
L_LY02_33-3	Line	B_MR04_GM25	B_MR04_GM23	5.32	4.71	7.10	0.0006937
L_LY02_35-3	Line	B_MR04_GM32	B_MR04_GM24	5.32	4.71	7.10	0.0006937
L_LY02_37-3	Line	B_MR04_GM24	B_MR04_GM25	5.32	4.71	7.10	0.0006937
L_LY02_38-3	Line	B_MR04_GM12	B_MR04_GM26	5.32	4.71	7.10	0.0006937
L_LY02_40-3	Line	B_MR04_GM26	B_MR04_GM27	5.32	4.71	7.10	0.0006937
L_LY02_41-3	Line	B_MR04_GM27	B_MR04_GM28	5.32	4.71	7.10	0.0006937
L_LY02_43-3	Line	B_MR04_GM28	B_MR04_GM29	5.32	4.71	7.10	0.0006937
L_LY02_44-3	Line	B_MR04_GM29	B_MR04_GM30	5.32	4.71	7.10	0.0006937
L_LY02_45-3	Line	B_MR04_GM31	B_MR04_GM32	5.32	4.71	7.10	0.0006937
L_LY02_47-3	Line	B_MR04_GM30	B_MR04_GM31	5.32	4.71	7.10	0.0006937
L_LY02_48-3	Line	B_MR04_GM31	B_MR04_GM33	5.32	4.71	7.10	0.0006937
L_LY02_50-3	Line	B_MR04_GM33	B_MR04_GM34	5.32	4.71	7.10	0.0006937
L_LY02_51-3	Line	B_MR04_GM34	B_MR04_GM35	5.32	4.71	7.10	0.0006937
L_LY02_53-3	Line	B_MR04_GM35	B_MR04_GM36	5.32	4.71	7.10	0.0006937
L_LY02_54-3	Line	B_MR04_GM36	B_MR04_GM37	5.32	4.71	7.10	0.0006937
L_LY02_56-3	Line	B_MR04_GM39	B_MR04_GM38	5.32	4.71	7.10	0.0006937
L_LY02_57-3	Line	B_MR04_GM35	B_MR04_GM39	5.32	4.71	7.10	0.0006937
L_LY02_59-3	Line	B_MR04_GM27	B_MR04_GM40	5.32	4.71	7.10	0.0006937
L_LY02_60-3	Line	B_MR04_GM40	B_MR04_GM41	5.32	4.71	7.10	0.0006937
L_LY02_62-3	Line	B_MR04_GM41	B_MR04_GM42	5.32	4.71	7.10	0.0006937
L_LY02_63-3	Line	B_MR04_GM42	B_MR04_GM43	5.32	4.71	7.10	0.0006937
L_LY02_65-3	Line	B_MR04_GM41	B_MR04_GM44	5.32	4.71	7.10	0.0006937
L_LY02_66-3	Line	B_MR04_GM44	B_MR04_GM45	5.32	4.71	7.10	0.0006937
L_LY02_68-3	Line	B_MR04_GM45	B_MR04_GM46	5.32	4.71	7.10	0.0006937

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LY02_69-3	Line	B_MR04_GM46	B_MR04_GM47	5.32	4.71	7.10	0.0006937
L_LY02_71-3	Line	B_MR04_GM15	B_MR04_GM48	5.32	4.71	7.10	0.0006937
L_LY02_72-3	Line	B_MR04_GM14	B_MR04_GM49	5.32	4.71	7.10	0.0006937
L_MR1_GMP_1	Line	Bus_MR1_GMP94	Bus_MR1_GMP2	13.12	9.56	16.23	0.0013590
L_MR1_GMP_3	Line	Bus_MR1_GMP92	Bus_MR1_GMP6	13.12	9.56	16.23	0.0013590
L_MR1_GMP_4	Line	Bus_MR1_GMP6	Bus_MR1_GMP8	13.12	9.56	16.23	0.0013590
L_MR1_GMP_5	Line	Bus_MR1_GMP8	Bus_MR1_GMP10	13.12	9.56	16.23	0.0013590
L_MR1_GMP_6	Line	Bus_MR1_GMP10	Bus_MR1_GMP12	13.12	9.56	16.23	0.0013590
L_MR1_GMP_7	Line	Bus_MR1_GMP12	Bus_MR1_GMP14	13.12	9.56	16.23	0.0013590
L_MR1_GMP_8	Line	Bus_MR1_GMP14	Bus_MR1_GMP16	13.12	9.56	16.23	0.0013590
L_MR1_GMP_9	Line	Bus_MR1_GMP16	Bus_MR1_GMP18	13.12	9.56	16.23	0.0013590
L_MR1_GMP_10	Line	Bus_MR1_GMP18	Bus_MR1_GMP20	13.12	9.56	16.23	0.0013590
L_MR1_GMP_11	Line	Bus_MR1_GMP20	Bus_MR1_GMP22	13.12	9.56	16.23	0.0013590
L_MR1_GMP_12	Line	Bus_MR1_GMP22	Bus_MR1_GMP24	13.12	9.56	16.23	0.0013590
L_MR1_GMP_13	Line	Bus_MR1_GMP24	Bus_MR1_GMP26	13.12	9.56	16.23	0.0013590
L_MR1_GMP_14	Line	Bus_MR1_GMP26	Bus_MR1_GMP28	13.12	9.56	16.23	0.0013590
L_MR1_GMP_15	Line	Bus_MR1_GMP28	Bus_MR1_GMP30	13.12	9.56	16.23	0.0013590
L_MR1_GMP_16	Line	Bus_MR1_GMP28	Bus_MR1_GMP32	13.12	9.56	16.23	0.0013590
L_MR1_GMP_17	Line	Bus_MR1_GMP32	Bus_MR1_GMP34	13.12	9.56	16.23	0.0013590
L_MR1_GMP_18	Line	Bus_MR1_GMP34	Bus_MR1_GMP36	13.12	9.56	16.23	0.0013590
L_MR1_GMP_19	Line	Bus_MR1_GMP36	Bus_MR1_GMP38	13.12	9.56	16.23	0.0013590
L_MR1_GMP_21	Line	Bus_MR1_GMP86	Bus_MR1_GMP43	13.12	9.56	16.23	0.0013590
L_MR1_GMP_22	Line	Bus_MR1_GMP43	Bus_MR1_GMP45	13.12	9.56	16.23	0.0013590
L_MR1_GMP_23	Line	Bus_MR1_GMP45	Bus_MR1_GMP47	13.12	9.56	16.23	0.0013590
L_MR1_GMP_24	Line	Bus_MR1_GMP38	Bus_MR1_GMP49	13.12	9.56	16.23	0.0013590
L_MR1_GMP_25	Line	Bus_MR1_GMP49	Bus_MR1_GMP51	13.12	9.56	16.23	0.0013590
L_MR1_GMP_26	Line	Bus_MR1_GMP51	Bus_MR1_GMP53	13.12	9.56	16.23	0.0013590
L_MR1_GMP_27	Line	Bus_MR1_GMP24	Bus_MR1_GMP55	10.63	9.43	14.21	0.0013876
L_MR1_GMP_28	Line	Bus_MR1_GMP55	Bus_MR1_GMP57	13.12	9.56	16.23	0.0013590
L_MR1_GMP_29	Line	Bus_MR1_GMP55	Bus_MR1_GMP59	13.12	9.56	16.23	0.0013590
L_MR1_GMP_30	Line	Bus_MR1_GMP55	Bus_MR1_GMP61	13.12	9.56	16.23	0.0013590
L_MR1_GMP_31	Line	Bus_MR1_GMP55	Bus_MR1_GMP63	13.12	9.56	16.23	0.0013590
L_MR1_GMP_32	Line	Bus_MR1_GMP55	Bus_MR1_GMP65	13.12	9.56	16.23	0.0013590
L_MR1_GMP_34	Line	Bus_MR1_GMP97	Bus_MR1_GMP72	13.12	9.56	16.23	0.0013590
L_MR1_GMP_35	Line	Bus_MR1_GMP72	Bus_MR1_GMP74	13.12	9.56	16.23	0.0013590
L_MR1_GMP_36	Line	Bus_MR1_GMP74	Bus_MR1_GMP76	13.12	9.56	16.23	0.0013590
L_MR1_GMP_37	Line	Bus_MR1_GMP76	Bus_MR1_GMP78	13.12	9.56	16.23	0.0013590
L_MR1_GMP_38	Line	Bus_MR1_GMP78	Bus_MR1_GMP80	13.12	9.56	16.23	0.0013590
L_MR1_GMP_39	Line	Bus_MR1_GMP80	Bus_MR1_GMP82	13.12	9.56	16.23	0.0013590

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_MR1_GMP_41	Line	Bus_MR1_GMP38	Bus_MR1_GMP86	13.12	9.56	16.23	0.0013590
L_MR1_GMP_43	Line	Bus_MR1_GMP2	Bus_MR1_GMP92	13.12	9.56	16.23	0.0013590
L_MR1_GMP_45	Line	Bus_MR1_GMP55	Bus_MR1_GMP97	13.12	9.56	16.23	0.0013590
L_MR6_GMP1	Line	B_MR6_GMP1	B_MR6_GMP4	13.48	19.11	23.38	0.0029094
L_MR6_GMP2	Line	B_MR6_GMP4	B_MR6_GMP7	13.48	19.11	23.38	0.0029094
L_MR6_GMP4	Line	B_MR6_GMP7	B_MR6_GMP11	13.48	19.11	23.38	0.0029094
L_MR6_GMP5	Line	B_MR6_GMP11	B_MR6_GMP13	13.48	19.11	23.38	0.0029094
L_MR6_GMP6	Line	B_MR6_GMP13	B_MR6_GMP15	13.48	19.11	23.38	0.0029094
L_MR6_GMP7	Line	B_MR6_GMP15	B_MR6_GMP16	13.48	19.11	23.38	0.0029094
L_MR6_GMP9	Line	B_MR6_GMP16	B_MR6_GMP19	9.18	6.69	11.36	0.0009511
L_MR6_GMP10	Line	B_MR6_GMP19	B_MR6_GMP21	9.18	6.69	11.36	0.0009511
L_MR6_GMP12	Line	B_MR6_GMP19	B_MR6_GMP25	9.18	6.69	11.36	0.0009511
L_MR6_GMP13	Line	B_MR6_GMP25	B_MR6_GMP26	9.18	6.69	11.36	0.0009511
L_MR6_GMP16	Line	B_MR6_GMP25	B_MR6_GMP30	9.18	6.69	11.36	0.0009511
L_MR6_GMP17	Line	B_MR6_GMP30	B_MR6_GMP32	9.18	6.69	11.36	0.0009511
L_MR6_GMP19	Line	B_MR6_GMP30	B_MR6_GMP36	9.18	6.69	11.36	0.0009511
L_MR6_GMP20	Line	B_MR6_GMP37	B_MR6_GMP16	9.18	6.69	11.36	0.0009511
L_MR6_GMP21	Line	B_MR6_GMP46	B_MR6_GMP37	9.18	6.69	11.36	0.0009511
L_MR6_GMP24	Line	B_MR6_GMP44	B_MR6_GMP46	9.18	6.69	11.36	0.0009511
L_MR6_GMP25	Line	B_MR6_GMP45	B_MR6_GMP44	9.18	6.69	11.36	0.0009511
L_MR6_GMP26	Line	B_MR6_GMP55	B_MR6_GMP37	9.18	6.69	11.36	0.0009511
L_MR6_GMP29	Line	B_MR6_GMP55	B_MR6_GMP54	9.18	6.69	11.36	0.0009511
L_MR6_GMP30	Line	B_MR6_GMP54	B_MR6_GMP53	9.18	6.69	11.36	0.0009511
L_MR6_GMP32	Line	B_MR6_GMP53	B_MR6_GMP59	9.18	6.69	11.36	0.0009511
L_MR6_GMP33	Line	B_MR6_GMP16	B_MR6_GMP66	13.48	19.11	23.38	0.0029094
L_MR6_GMP35	Line	B_MR6_GMP66	B_MR6_GMP63	9.18	6.69	11.36	0.0009511
L_MR6_GMP36	Line	B_MR6_GMP63	B_MR6_GMP65	9.18	6.69	11.36	0.0009511
L_MR6_GMP38	Line	B_MR6_GMP66	B_MR6_GMP70	13.48	19.11	23.38	0.0029094
L_MR6_GMP39	Line	B_MR6_GMP70	B_MR6_GMP72	13.48	19.11	23.38	0.0029094
L_MR6_GMP40	Line	B_MR6_GMP72	B_MR6_GMP73	9.18	6.69	11.36	0.0009511
L_MR6_GMP42	Line	B_MR6_GMP72	B_MR6_GMP77	13.48	19.11	23.38	0.0029094
L_MR6_GMP43	Line	B_MR6_GMP77	B_MR6_GMP79	13.48	19.11	23.38	0.0029094
L_MR6_GMP44	Line	B_MR6_GMP79	B_MR6_GMP81	13.48	19.11	23.38	0.0029094
L_MR6_GMP45	Line	B_MR6_GMP81	B_MR6_GMP2	13.48	19.11	23.38	0.0029094
L_MR6_GMT1	Line	B_MR6_GMP82	B_MR6_GMT2	3.19	2.83	4.26	0.0004162
L_MR6_GMT2	Line	B_MR6_GMT2	B_MR6_GMT3	9.18	6.69	11.36	0.0009511
L_MR6_GMT5	Line	B_MR6_GMT2	B_MR6_GMT7	3.19	2.83	4.26	0.0004162
L_MR6_GMT6	Line	B_MR6_GMT7	B_MR6_GMT9	9.18	6.69	11.36	0.0009511
L_MR6_GMT9	Line	B_MR6_GMT7	B_MR6_GMT13	3.19	2.83	4.26	0.0004162

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_MR6_GMT12	Line	B_MR6_GMT13	B_MR6_GMT19	3.19	2.83	4.26	0.0004162
L_MR6_GMT13	Line	B_MR6_GMT19	B_MR6_GMT21	3.19	2.83	4.26	0.0004162
L_MR6_GMT16	Line	B_MR6_GMT21	B_MR6_GMT25	3.19	2.83	4.26	0.0004162
L_MR6_GMT17	Line	B_MR6_GMT25	B_MR6_GMT27	9.18	6.69	11.36	0.0009511
L_MR6_GMT19	Line	B_MR6_GMT25	B_MR6_GMT30	3.19	2.83	4.26	0.0004162
L_MR6_GMT22	Line	B_MR6_GMT30	B_MR6_GMT35	3.19	2.83	4.26	0.0004162
L_MR6_GMT23	Line	B_MR6_GMT35	B_MR6_GMT37	9.18	6.69	11.36	0.0009511
L_MR6_GMT24	Line	B_MR6_GMT38	B_MR6_GMT35	9.18	6.69	11.36	0.0009511
L_MR6_GMT29	Line	B_MR6_GMT47	B_MR6_GMT38	9.18	6.69	11.36	0.0009511
L_MR6_GMT30	Line	B_MR6_GMT48	B_MR6_GMT47	9.18	6.69	11.36	0.0009511
L_MR6_GMT31	Line	B_MR6_GMT55	B_MR6_GMT38	9.18	6.69	11.36	0.0009511
L_MR6_GMT34	Line	B_MR6_GMT55	B_MR6_GMT52	9.18	6.69	11.36	0.0009511
L_MR6_GMT35	Line	B_MR6_GMT52	B_MR6_GMT54	9.18	6.69	11.36	0.0009511
L_MR6_GMT37	Line	B_MR6_GMT52	B_MR6_GMT59	9.18	6.69	11.36	0.0009511
L_MR6_GMT38	Line	B_MR6_GMT59	B_MR6_GMT61	9.18	6.69	11.36	0.0009511
L_MR6_GMT39	Line	B_MR6_GMT35	B_MR6_GMT63	3.19	2.83	4.26	0.0004162
L_MR6_GMT40	Line	B_MR6_GMT63	B_MR6_GMT65	3.19	2.83	4.26	0.0004162
L_MR6_GMT43	Line	B_MR6_GMT65	B_MR6_GMT73	3.19	2.83	4.26	0.0004162
L_MR6_GMT44	Line	B_MR6_GMT73	B_MR6_GMT72	3.19	2.83	4.26	0.0004162
L_MR6_GMT45	Line	B_MR6_GMT72	B_MR6_GMT77	3.19	2.83	4.26	0.0004162
L_MR6_GMT46	Line	B_MR6_GMT77	B_MR6_GMT76	3.19	2.83	4.26	0.0004162
L_MR6_GMT48	Line	B_MR6_GMT76	B_MR6_GMT81	3.19	2.83	4.26	0.0004162
L_MR6_GMT49	Line	B_MR6_GMT81	B_MR6_GMT83	5.25	3.82	6.49	0.0005435
L_MR6_GMT50	Line	B_MR6_GMT83	B_MR6_GMT84	9.18	6.69	11.36	0.0009511
L_MR6_GMT52	Line	B_MR6_GMT83	B_MR6_GMT88	5.25	3.82	6.49	0.0005435
L_MR6_GMT54	Line	B_MR6_GMT88	B_MR6_GMT92	5.25	3.82	6.49	0.0005435
L_MR6_GMT57	Line	B_MR6_GMT92	B_MR6_GMT97	5.25	3.82	6.49	0.0005435
L_MR6_GMT58	Line	B_MR6_GMT97	B_MR6_GMT98	9.18	6.69	11.36	0.0009511
L_MR6_GMT59	Line	B_MR6_GMT98	B_MR6_GMT99	9.18	6.69	11.36	0.0009511
L_MR6_GMT61	Line	B_MR6_GMT98	B_MR6_GMT103	9.18	6.69	11.36	0.0009511
L_MR6_GMT65	Line	B_MR6_GMT97	B_MR6_GMT111	5.25	3.82	6.49	0.0005435
L_MR6_GMT66	Line	B_MR6_GMT111	B_MR6_GMT112	5.25	3.82	6.49	0.0005435
L_MR6_GMT67	Line	B_MR6_GMT112	B_MR6_GMT113	9.18	6.69	11.36	0.0009511
L_MR6_GMT69	Line	B_MR6_GMT112	B_MR6_GMT117	5.25	3.82	6.49	0.0005435
L_MR6_GMT70	Line	B_MR6_GMT117	B_MR6_GMT128	3.93	2.87	4.87	0.0004076
L_MR6_GMT74	Line	B_MR6_GMT128	B_MR6_GMT125	9.18	6.69	11.36	0.0009511
L_MR6_GMT75	Line	B_MR6_GMT125	B_MR6_GMT124	9.18	6.69	11.36	0.0009511
L_MR6_GMT76	Line	B_MR6_GMT125	B_MR6_GMT127	9.18	6.69	11.36	0.0009511
L_MR6_GMT77	Line	B_MR6_GMT128	MR6 V UJUNG2	39.34	28.66	48.68	0.0040760

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
PMT_COUPLE	Tie Breakr	GH MARISA1	GH MARISA				
RECLOSER PATUHU	Tie Switch	LO1 V UJUNG	LM3 V UJUNG				

LOAD FLOW REPORT

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_1	20.000	91.844	-4.0	0.000	0.000	0.000	0.000	GH MARISA1	-0.790	-0.455	28.7	86.7	
								Bus_LM1_3	0.790	0.455	28.7	86.7	
Bus_LM1_2	0.400	90.109	-4.5	0.000	0.000	0.034	0.021	Bus_LM1_3	-0.034	-0.021	63.2	85.0	
Bus_LM1_3	20.000	91.705	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_1	-0.789	-0.455	28.7	86.6	
								Bus_LM1_7	0.755	0.434	27.4	86.7	
								Bus_LM1_2	0.034	0.021	1.3	84.6	
Bus_LM1_6	0.400	87.594	-5.2	0.000	0.000	0.020	0.013	Bus_LM1_7	-0.020	-0.013	39.3	85.0	
Bus_LM1_7	20.000	91.573	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_3	-0.754	-0.434	27.4	86.7	
								Bus_LM1_9	0.413	0.237	15.0	86.7	
								Bus_LM1_70	0.320	0.183	11.6	86.8	
								Bus_LM1_6	0.021	0.014	0.8	83.9	
Bus_LM1_8	0.400	89.624	-4.6	0.000	0.000	0.039	0.024	Bus_LM1_9	-0.039	-0.024	74.3	85.0	
Bus_LM1_9	20.000	91.501	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_7	-0.413	-0.238	15.0	86.6	
								Bus_LM1_11	0.373	0.213	13.5	86.8	
								Bus_LM1_8	0.040	0.025	1.5	84.5	
Bus_LM1_10	0.400	91.320	-4.1	0.000	0.000	0.002	0.002	Bus_LM1_11	-0.002	-0.002	4.6	85.0	
Bus_LM1_11	20.000	91.435	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_9	-0.373	-0.214	13.6	86.7	
								Bus_LM1_13	0.370	0.212	13.5	86.7	
								Bus_LM1_10	0.002	0.002	0.1	85.0	
Bus_LM1_12	0.400	87.385	-5.2	0.000	0.000	0.040	0.025	Bus_LM1_13	-0.040	-0.025	78.7	85.0	
Bus_LM1_13	20.000	91.370	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_11	-0.370	-0.213	13.5	86.6	
								Bus_LM1_15	0.328	0.186	11.9	87.0	
								Bus_LM1_12	0.042	0.027	1.6	83.9	
Bus_LM1_14	0.400	90.028	-4.5	0.000	0.000	0.027	0.017	Bus_LM1_15	-0.027	-0.017	50.9	85.0	
Bus_LM1_15	20.000	91.313	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_13	-0.328	-0.187	11.9	86.8	
								Bus_LM1_17	0.301	0.170	10.9	87.0	
								Bus_LM1_14	0.027	0.017	1.0	84.7	
Bus_LM1_16	0.400	89.221	-4.7	0.000	0.000	0.021	0.013	Bus_LM1_17	-0.021	-0.013	40.3	85.0	
Bus_LM1_17	20.000	91.260	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_15	-0.301	-0.171	10.9	86.9	
								Bus_LM1_19	0.279	0.157	10.1	87.1	
								Bus_LM1_16	0.022	0.014	0.8	84.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_18	0.400	89.251	-4.7	0.000	0.000	0.020	0.013	Bus_LM1_19	-0.020	-0.013	38.8	85.0	
Bus_LM1_19	20.000	91.211	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_17	-0.279	-0.159	10.2	86.9	
								Bus_LM1_21	0.258	0.145	9.4	87.1	
								Bus_LM1_18	0.021	0.013	0.8	84.5	
Bus_LM1_20	0.400	85.662	-5.7	0.000	0.000	0.027	0.017	Bus_LM1_21	-0.027	-0.017	54.2	85.0	
Bus_LM1_21	20.000	91.166	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_19	-0.258	-0.146	9.4	87.0	
								Bus_LM1_25	0.230	0.128	8.3	87.4	
								Bus_LM1_20	0.029	0.019	1.1	83.5	
Bus_LM1_25	20.000	91.126	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_21	-0.229	-0.129	8.3	87.2	
								Bus_LM1_41	0.214	0.119	7.7	87.4	
								Bus_LM1_26	0.016	0.010	0.6	84.6	
Bus_LM1_26	0.400	89.642	-4.6	0.000	0.000	0.016	0.010	Bus_LM1_25	-0.016	-0.010	29.4	85.0	
Bus_LM1_31	20.000	91.052	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_41	-0.214	-0.121	7.8	87.0	
								Bus_LM1_37	0.195	0.109	7.1	87.2	
								Bus_LM1_32	0.019	0.012	0.7	84.5	
Bus_LM1_32	0.400	89.249	-4.7	0.000	0.000	0.019	0.012	Bus_LM1_31	-0.019	-0.012	35.7	85.0	
Bus_LM1_33	20.000	90.951	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_35	-0.050	-0.028	1.8	87.5	
								Bus_LM1_42	0.035	0.018	1.3	88.7	
								Bus_LM1_34	0.015	0.009	0.6	84.6	
Bus_LM1_34	0.400	89.544	-4.6	0.000	0.000	0.015	0.009	Bus_LM1_33	-0.015	-0.009	27.9	85.0	
Bus_LM1_35	20.000	90.960	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_33	0.050	0.027	1.8	88.3	
								Bus_LM1_39	-0.157	-0.089	5.7	87.1	
								Bus_LM1_59	0.097	0.056	3.6	86.7	
								Bus_LM1_36	0.010	0.006	0.4	84.8	
Bus_LM1_36	0.400	90.026	-4.4	0.000	0.000	0.010	0.006	Bus_LM1_35	-0.010	-0.006	18.5	85.0	
Bus_LM1_37	20.000	91.018	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_31	-0.194	-0.110	7.1	87.0	
								Bus_LM1_39	0.171	0.095	6.2	87.4	
								Bus_LM1_38	0.023	0.015	0.9	84.4	
Bus_LM1_38	0.400	88.814	-4.8	0.000	0.000	0.023	0.014	Bus_LM1_37	-0.023	-0.014	43.6	85.0	
Bus_LM1_39	20.000	90.988	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_35	0.157	0.088	5.7	87.4	
								Bus_LM1_37	-0.171	-0.096	6.2	87.1	
								Bus_LM1_40	0.014	0.009	0.5	84.6	
Bus_LM1_40	0.400	89.660	-4.5	0.000	0.000	0.014	0.009	Bus_LM1_39	-0.014	-0.009	26.3	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_41	20.000	91.089	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_25	-0.214	-0.120	7.8	87.2	
								Bus_LM1_31	0.214	0.120	7.8	87.2	
Bus_LM1_42	20.000	90.945	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_33	-0.035	-0.020	1.3	87.5	
								Bus_LM1_44	0.023	0.012	0.8	89.1	
								Bus_LM1_43	0.012	0.008	0.5	84.4	
Bus_LM1_43	0.400	88.580	-4.8	0.000	0.000	0.012	0.008	Bus_LM1_42	-0.012	-0.008	23.4	85.0	
Bus_LM1_44	20.000	90.941	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_42	-0.023	-0.013	0.8	87.3	
								Bus_LM1_46	0.003	0.001	0.1	98.6	
								Bus_LM1_45	0.020	0.012	0.7	84.8	
Bus_LM1_45	0.400	90.359	-4.3	0.000	0.000	0.020	0.012	Bus_LM1_44	-0.020	-0.012	36.9	85.0	
Bus_LM1_46	20.000	90.941	-4.2	0.000	0.000	0.000	0.000	LM1 V UJUNG	0.000	0.000	0.0	0.0	
								Bus_LM1_44	-0.003	-0.002	0.1	88.8	
								Bus_LM1_47	0.003	0.002	0.1	84.9	
Bus_LM1_47	0.400	90.631	-4.2	0.000	0.000	0.003	0.002	Bus_LM1_46	-0.003	-0.002	6.1	85.0	
Bus_LM1_58	0.400	89.535	-4.6	0.000	0.000	0.007	0.005	Bus_LM1_59	-0.007	-0.005	13.9	85.0	
Bus_LM1_59	20.000	90.943	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_35	-0.097	-0.057	3.6	86.2	
								Bus_LM1_66	0.089	0.052	3.3	86.3	
								Bus_LM1_58	0.007	0.005	0.3	84.6	
Bus_LM1_60	0.400	87.246	-5.2	0.000	0.000	0.019	0.012	Bus_LM1_65	-0.019	-0.012	36.2	85.0	
Bus_LM1_61	0.400	88.862	-4.7	0.000	0.000	0.021	0.013	Bus_LM1_64	-0.021	-0.013	40.5	85.0	
Bus_LM1_62	0.400	88.536	-4.8	0.000	0.000	0.024	0.015	Bus_LM1_63	-0.024	-0.015	46.8	85.0	
Bus_LM1_63	20.000	90.902	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_64	-0.025	-0.016	0.9	84.4	
								Bus_LM1_62	0.025	0.016	0.9	84.4	
Bus_LM1_64	20.000	90.907	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_63	0.025	0.015	0.9	86.1	
								Bus_LM1_65	-0.046	-0.028	1.7	85.4	
								Bus_LM1_61	0.022	0.014	0.8	84.5	
Bus_LM1_65	20.000	90.915	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_64	0.046	0.027	1.7	86.3	
								Bus_LM1_66	-0.066	-0.040	2.4	85.6	
								Bus_LM1_60	0.019	0.012	0.7	84.0	
Bus_LM1_66	20.000	90.927	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_59	-0.089	-0.053	3.3	85.9	
								Bus_LM1_65	0.066	0.038	2.4	86.3	
								Bus_LM1_67	0.024	0.015	0.9	84.7	
Bus_LM1_67	0.400	89.796	-4.5	0.000	0.000	0.024	0.015	Bus_LM1_66	-0.024	-0.015	44.8	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_70	20.000	91.517	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_7	-0.320	-0.184	11.6	86.6	
								Bus_LM1_74	0.293	0.167	10.6	86.8	
								Bus_LM1_71	0.027	0.017	1.0	84.7	
Bus_LM1_71	0.400	90.234	-4.4	0.000	0.000	0.027	0.017	Bus_LM1_70	-0.027	-0.017	50.8	85.0	
Bus_LM1_74	20.000	91.466	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_70	-0.292	-0.168	10.6	86.7	
								Bus_LM1_76	0.275	0.157	10.0	86.8	
								Bus_LM1_75	0.017	0.011	0.6	84.6	
Bus_LM1_75	0.400	89.827	-4.6	0.000	0.000	0.017	0.011	Bus_LM1_74	-0.017	-0.011	32.4	85.0	
Bus_LM1_76	20.000	91.418	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_74	-0.275	-0.158	10.0	86.6	
								Bus_LM1_78	0.261	0.150	9.5	86.7	
								Bus_LM1_77	0.014	0.009	0.5	84.8	
Bus_LM1_77	0.400	90.759	-4.3	0.000	0.000	0.014	0.009	Bus_LM1_76	-0.014	-0.009	26.1	85.0	
Bus_LM1_78	20.000	91.372	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_76	-0.261	-0.151	9.5	86.6	
								Bus_LM1_80	0.250	0.144	9.1	86.7	
								Bus_LM1_79	0.011	0.007	0.4	84.7	
Bus_LM1_79	0.400	90.362	-4.4	0.000	0.000	0.011	0.007	Bus_LM1_78	-0.011	-0.007	20.0	85.0	
Bus_LM1_80	20.000	91.328	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_78	-0.250	-0.145	9.1	86.5	
								Bus_LM1_82	0.203	0.116	7.4	87.0	
								Bus_LM1_81	0.046	0.029	1.7	84.4	
Bus_LM1_81	0.400	89.130	-4.7	0.000	0.000	0.046	0.028	Bus_LM1_80	-0.046	-0.028	87.0	85.0	
Bus_LM1_82	20.000	91.292	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_80	-0.203	-0.117	7.4	86.8	
								Bus_LM1_84	0.199	0.114	7.3	86.8	
								Bus_LM1_83	0.004	0.003	0.2	84.9	
Bus_LM1_83	0.400	91.099	-4.2	0.000	0.000	0.004	0.003	Bus_LM1_82	-0.004	-0.003	7.7	85.0	
Bus_LM1_84	20.000	91.257	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_82	-0.199	-0.115	7.3	86.6	
								Bus_LM1_86	0.195	0.113	7.1	86.6	
								Bus_LM1_85	0.004	0.003	0.2	84.9	
Bus_LM1_85	0.400	91.064	-4.2	0.000	0.000	0.004	0.003	Bus_LM1_84	-0.004	-0.003	7.7	85.0	
Bus_LM1_86	20.000	91.223	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_84	-0.195	-0.114	7.1	86.4	
								Bus_LM1_91	0.167	0.096	6.1	86.7	
								Bus_LM1_87	0.028	0.018	1.1	84.3	
Bus_LM1_87	0.400	88.540	-4.9	0.000	0.000	0.028	0.017	Bus_LM1_86	-0.028	-0.017	53.0	85.0	
Bus_LM1_91	20.000	91.193	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_86	-0.167	-0.097	6.1	86.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_93	0.139	0.079	5.0	86.9	
								Bus_LM1_92	0.028	0.018	1.1	84.3	
Bus_LM1_92	0.400	88.510	-4.9	0.000	0.000	0.028	0.017	Bus_LM1_91	-0.028	-0.017	53.0	85.0	
Bus_LM1_93	20.000	91.169	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_91	-0.138	-0.080	5.1	86.6	
								Bus_LM1_97	0.131	0.075	4.8	86.7	
								Bus_LM1_94	0.007	0.005	0.3	84.8	
Bus_LM1_94	0.400	90.471	-4.3	0.000	0.000	0.007	0.005	Bus_LM1_93	-0.007	-0.005	13.8	85.0	
Bus_LM1_95	20.000	91.126	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_97	-0.110	-0.064	4.0	86.4	
								Bus_LM1_99	0.082	0.046	3.0	87.1	
								Bus_LM1_96	0.028	0.018	1.1	84.3	
Bus_LM1_96	0.400	88.442	-4.9	0.000	0.000	0.028	0.017	Bus_LM1_95	-0.028	-0.017	53.1	85.0	
Bus_LM1_97	20.000	91.146	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_95	0.110	0.063	4.0	86.8	
								Bus_LM1_93	-0.131	-0.076	4.8	86.4	
								Bus_LM1_98	0.021	0.013	0.8	84.5	
Bus_LM1_98	0.400	89.185	-4.7	0.000	0.000	0.020	0.013	Bus_LM1_97	-0.020	-0.013	38.8	85.0	
Bus_LM1_99	20.000	91.112	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_95	-0.082	-0.048	3.0	86.5	
								Bus_LM1_101	0.054	0.029	1.9	87.7	
								Bus_LM1_100	0.028	0.018	1.1	84.3	
Bus_LM1_100	0.400	88.427	-4.9	0.000	0.000	0.028	0.017	Bus_LM1_99	-0.028	-0.017	53.1	85.0	
Bus_LM1_101	20.000	91.102	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_99	-0.054	-0.031	2.0	86.9	
								Bus_LM1_115	0.042	0.023	1.5	87.5	
								Bus_LM1_102	0.012	0.007	0.4	84.7	
Bus_LM1_102	0.400	90.012	-4.4	0.000	0.000	0.011	0.007	Bus_LM1_101	-0.011	-0.007	21.6	85.0	
Bus_LM1_111	0.400	88.404	-4.9	0.000	0.000	0.028	0.017	Bus_LM1_114	-0.028	-0.017	53.1	85.0	
Bus_LM1_112	0.400	90.545	-4.3	0.000	0.000	0.006	0.004	Bus_LM1_113	-0.006	-0.004	10.8	85.0	
Bus_LM1_113	20.000	91.088	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_114	-0.006	-0.004	0.2	84.9	
								Bus_LM1_112	0.006	0.004	0.2	84.9	
Bus_LM1_114	20.000	91.089	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_113	0.006	0.002	0.2	92.1	
								Bus_LM1_115	-0.034	-0.020	1.3	85.7	
								Bus_LM1_111	0.028	0.018	1.1	84.3	
Bus_LM1_115	20.000	91.095	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_101	-0.042	-0.025	1.5	86.5	
								Bus_LM1_114	0.034	0.019	1.2	86.9	
								Bus_LM1_116	0.008	0.005	0.3	84.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_116	0.400	89.531	-4.6	0.000	0.000	0.008	0.005	Bus_LM1_115	-0.008	-0.005	15.5	85.0	
Bus_LM1_123	0.400	89.528	-4.7	0.000	0.000	0.046	0.028	Bus_LM1_126	-0.046	-0.028	86.7	85.0	
Bus_LM1_124	0.400	91.580	-4.1	0.000	0.000	0.006	0.004	Bus_LM1_125	-0.006	-0.004	10.7	85.0	
Bus_LM1_125	20.000	91.749	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_151	-0.171	-0.104	6.3	85.6	
								Bus_LM1_126	0.166	0.100	6.1	85.6	
								Bus_LM1_124	0.006	0.004	0.2	85.0	
Bus_LM1_126	20.000	91.719	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_125	-0.166	-0.101	6.1	85.4	
								Bus_LM1_127	0.119	0.072	4.4	85.7	
								Bus_LM1_123	0.047	0.030	1.7	84.4	
Bus_LM1_127	20.000	91.698	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_126	-0.119	-0.073	4.4	85.4	
								Bus_LM1_137	0.077	0.046	2.8	86.1	
								Bus_LM1_128	0.042	0.027	1.6	83.9	
Bus_LM1_128	0.400	87.723	-5.2	0.000	0.000	0.041	0.025	Bus_LM1_127	-0.041	-0.025	78.5	85.0	
Bus_LM1_135	0.400	91.560	-4.1	0.000	0.000	0.002	0.002	Bus_LM1_138	-0.002	-0.002	4.6	85.0	
Bus_LM1_136	0.400	89.012	-4.8	0.000	0.000	0.028	0.017	Bus_LM1_137	-0.028	-0.017	52.8	85.0	
Bus_LM1_137	20.000	91.684	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_127	-0.077	-0.047	2.8	85.5	
								Bus_LM1_138	0.049	0.029	1.8	86.3	
								Bus_LM1_136	0.028	0.018	1.1	84.3	
Bus_LM1_138	20.000	91.676	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_137	-0.049	-0.030	1.8	85.4	
								Bus_LM1_139	0.047	0.028	1.7	85.4	
								Bus_LM1_135	0.002	0.002	0.1	85.0	
Bus_LM1_139	20.000	91.667	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_138	-0.047	-0.030	1.7	84.4	
								Bus_LM1_140	0.047	0.030	1.7	84.4	
Bus_LM1_140	0.400	89.475	-4.7	0.000	0.000	0.046	0.028	Bus_LM1_139	-0.046	-0.028	86.7	85.0	
Bus_LM1_147	0.400	91.240	-4.2	0.000	0.000	0.011	0.007	Bus_LM1_150	-0.011	-0.007	19.9	85.0	
Bus_LM1_148	0.400	91.193	-4.2	0.000	0.000	0.011	0.007	Bus_LM1_149	-0.011	-0.007	21.4	85.0	
Bus_LM1_149	20.000	91.733	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_150	-0.044	-0.025	1.6	86.5	
								Bus_LM1_157	0.032	0.018	1.2	87.1	
								Bus_LM1_148	0.012	0.007	0.4	84.9	
Bus_LM1_150	20.000	91.741	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_149	0.044	0.024	1.6	87.5	
								Bus_LM1_151	-0.217	-0.127	7.9	86.2	
								Bus_LM1_155	0.162	0.096	5.9	86.0	
								Bus_LM1_147	0.011	0.007	0.4	84.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_151	20.000	91.779	-4.0	0.000	0.000	0.000	0.000	Bus_LM1_125	0.172	0.102	6.3	85.9	
								Bus_LM1_169	-0.423	-0.251	15.5	86.0	
								Bus_LM1_150	0.217	0.126	7.9	86.4	
								Bus_LM1_152	0.035	0.023	1.3	84.1	
Bus_LM1_152	0.400	88.461	-5.0	0.000	0.000	0.034	0.021	Bus_LM1_151	-0.034	-0.021	65.5	85.0	
Bus_LM1_153	0.400	89.051	-4.8	0.000	0.000	0.028	0.017	Bus_LM1_156	-0.028	-0.017	52.8	85.0	
Bus_LM1_154	0.400	91.351	-4.2	0.000	0.000	0.012	0.008	Bus_LM1_155	-0.012	-0.008	22.9	85.0	
Bus_LM1_155	20.000	91.712	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_150	-0.162	-0.097	6.0	85.7	
								Bus_LM1_163	0.150	0.090	5.5	85.8	
								Bus_LM1_154	0.012	0.008	0.5	84.9	
Bus_LM1_156	20.000	91.723	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_157	-0.028	-0.018	1.1	84.3	
								Bus_LM1_153	0.028	0.018	1.1	84.3	
Bus_LM1_157	20.000	91.728	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_149	-0.032	-0.019	1.2	85.7	
								Bus_LM1_156	0.028	0.017	1.0	85.9	
								Bus_LM1_158	0.004	0.003	0.2	84.9	
Bus_LM1_158	0.400	91.342	-4.2	0.000	0.000	0.004	0.003	Bus_LM1_157	-0.004	-0.003	7.6	85.0	
Bus_LM1_159	0.400	88.994	-4.8	0.000	0.000	0.028	0.017	Bus_LM1_162	-0.028	-0.017	52.8	85.0	
Bus_LM1_160	0.400	88.981	-4.8	0.000	0.000	0.028	0.017	Bus_LM1_161	-0.028	-0.017	52.9	85.0	
Bus_LM1_161	20.000	91.654	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_162	-0.075	-0.046	2.8	85.4	
								Bus_LM1_167	0.047	0.028	1.7	86.0	
								Bus_LM1_160	0.028	0.018	1.1	84.3	
Bus_LM1_162	20.000	91.667	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_161	0.075	0.044	2.7	86.0	
								Bus_LM1_163	-0.103	-0.063	3.8	85.5	
								Bus_LM1_159	0.028	0.018	1.1	84.3	
Bus_LM1_163	20.000	91.686	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_155	-0.150	-0.091	5.5	85.5	
								Bus_LM1_162	0.103	0.061	3.8	85.9	
								Bus_LM1_164	0.047	0.030	1.7	84.4	
Bus_LM1_164	0.400	89.494	-4.7	0.000	0.000	0.046	0.028	Bus_LM1_163	-0.046	-0.028	86.7	85.0	
Bus_LM1_167	20.000	91.646	-4.1	0.000	0.000	0.000	0.000	LM4 V UJUNG	0.000	-0.001	0.0	0.0	
								Bus_LM1_161	-0.046	-0.029	1.7	85.1	
								Bus_LM1_168	0.046	0.030	1.7	84.4	
Bus_LM1_168	0.400	89.453	-4.7	0.000	0.000	0.046	0.028	Bus_LM1_167	-0.046	-0.028	86.7	85.0	
Bus_LM1_169	20.000	91.854	-4.0	0.000	0.000	0.000	0.000	GH MARISA1	-0.424	-0.250	15.5	86.1	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_151	0.424	0.250	15.5	86.1	
Bus_LM1_189	20.000	85.822	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_156	0.020	0.012	0.8	86.3	
								Bus_LM3_152	-0.163	-0.097	6.4	86.1	
								Bus_LM1_191	0.123	0.072	4.8	86.4	
								Bus_LM3_153	0.021	0.013	0.8	83.8	
Bus_LM1_190	20.000	85.791	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_191	-0.041	-0.026	1.6	84.6	
								Bus_LM3_170	0.020	0.012	0.8	86.3	
								Bus_LM3_159	0.021	0.014	0.8	82.9	
Bus_LM1_191	20.000	85.799	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_190	0.041	0.025	1.6	85.6	
								Bus_LM3_160	0.081	0.048	3.2	86.3	
								Bus_LM1_189	-0.123	-0.073	4.8	86.1	
Bus_LM1_193	20.000	85.803	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_152	-0.264	-0.156	10.3	86.1	
								Bus_LM1_195	0.244	0.143	9.5	86.2	
								Bus_LM3_173	0.020	0.013	0.8	84.4	
Bus_LM1_195	20.000	85.757	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_193	-0.244	-0.144	9.5	86.1	
								Bus_LM1_196	0.223	0.131	8.7	86.3	
								Bus_LM3_175	0.021	0.013	0.8	83.8	
Bus_LM1_196	20.000	85.715	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_195	-0.223	-0.132	8.7	86.1	
								Bus_LM1_197	0.203	0.119	7.9	86.3	
								Bus_LM3_176	0.020	0.013	0.8	84.4	
Bus_LM1_197	20.000	85.676	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_196	-0.203	-0.120	7.9	86.1	
								Bus_LM1_198	0.020	0.012	0.8	86.6	
								Bus_LM1_200	0.162	0.096	6.3	86.2	
								Bus_LM3_177	0.020	0.013	0.8	84.7	
Bus_LM1_198	20.000	85.672	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_197	-0.020	-0.013	0.8	84.7	
								Bus_LM3_178	0.020	0.013	0.8	84.7	
Bus_LM1_200	20.000	85.646	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_197	-0.162	-0.097	6.4	85.9	
								Bus_LM1_202	0.142	0.084	5.6	86.2	
								Bus_LM3_180	0.020	0.013	0.8	84.4	
Bus_LM1_202	20.000	85.619	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_200	-0.142	-0.085	5.6	85.9	
								Bus_LM1_203	0.122	0.072	4.8	86.1	
								Bus_LM3_182	0.020	0.013	0.8	84.7	
Bus_LM1_203	20.000	85.596	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_202	-0.122	-0.073	4.8	85.8	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_204	0.020	0.012	0.8	86.3	
								Bus_LM1_212	0.081	0.048	3.2	86.0	
								Bus_LM3_183	0.020	0.013	0.8	84.4	
Bus_LM1_204	20.000	85.592	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_203	-0.020	-0.013	0.8	84.4	
								Bus_LM3_184	0.020	0.013	0.8	84.4	
Bus_LM1_209	20.000	85.575	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_210	-0.020	-0.013	0.8	84.7	
								Bus_LM3_193	0.020	0.013	0.8	84.7	
Bus_LM1_210	20.000	85.577	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_209	0.020	0.012	0.8	86.1	
								Bus_LM1_211	-0.040	-0.025	1.6	85.4	
								Bus_LM3_192	0.020	0.013	0.8	84.7	
Bus_LM1_211	20.000	85.581	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_210	0.040	0.024	1.6	86.1	
								Bus_LM1_212	-0.061	-0.037	2.4	85.5	
								Bus_LM3_191	0.020	0.013	0.8	84.4	
Bus_LM1_212	20.000	85.587	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_203	-0.081	-0.049	3.2	85.6	
								Bus_LM1_211	0.061	0.036	2.4	86.0	
								Bus_LM3_194	0.020	0.013	0.8	84.4	
Bus_LM1_215	20.000	85.924	-5.6	0.000	0.000	0.000	0.000	LO1 V UJUNG	-2.051	-1.255	80.8	85.3	
								Bus_LM1_217	2.035	1.245	80.2	85.3	
								Bus_LM3_196	0.016	0.010	0.6	84.1	
Bus_LM1_217	20.000	85.775	-5.7	0.000	0.000	0.000	0.000	Bus_LM1_215	-2.033	-1.242	80.2	85.3	
								Bus_LM1_218	1.987	1.213	78.4	85.4	
								Bus_LM3_198	0.046	0.029	1.8	84.4	
Bus_LM1_218	20.000	85.629	-5.7	0.000	0.000	0.000	0.000	Bus_LM1_217	-1.985	-1.210	78.4	85.4	
								Bus_LM1_219	1.957	1.192	77.3	85.4	
								Bus_LM3_199	0.028	0.018	1.1	84.2	
Bus_LM1_219	20.000	85.485	-5.7	0.000	0.000	0.000	0.000	Bus_LM1_218	-1.954	-1.189	77.3	85.4	
								Bus_LM1_220	1.927	1.172	76.1	85.4	
								Bus_LM3_200	0.028	0.018	1.1	84.2	
Bus_LM1_220	20.000	85.344	-5.8	0.000	0.000	0.000	0.000	Bus_LM1_219	-1.924	-1.169	76.2	85.5	
								Bus_LM1_221	1.897	1.151	75.0	85.5	
								Bus_LM3_201	0.028	0.018	1.1	84.2	
Bus_LM1_221	20.000	85.205	-5.8	0.000	0.000	0.000	0.000	Bus_LM1_220	-1.894	-1.148	75.1	85.5	
								Bus_LM1_222	1.867	1.131	73.9	85.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_202	0.028	0.018	1.1	84.2	
Bus_LM1_222	20.000	85.067	-5.9	0.000	0.000	0.000	0.000	Bus_LM1_221	-1.865	-1.128	73.9	85.6	
								Bus_LM1_224	1.837	1.110	72.8	85.6	
								Bus_LM3_203	0.028	0.018	1.1	84.2	
Bus_LM1_224	20.000	84.932	-5.9	0.000	0.000	0.000	0.000	Bus_LM1_222	-1.835	-1.108	72.8	85.6	
								Bus_LM1_226	1.815	1.095	72.0	85.6	
								Bus_LM3_205	0.020	0.013	0.8	84.7	
Bus_LM1_226	20.000	84.799	-5.9	0.000	0.000	0.000	0.000	Bus_LM1_224	-1.812	-1.093	72.0	85.6	
								Bus_LM1_227	1.792	1.080	71.2	85.7	
								Bus_LM3_207	0.020	0.013	0.8	84.7	
Bus_LM1_227	20.000	84.667	-6.0	0.000	0.000	0.000	0.000	Bus_LM1_226	-1.790	-1.078	71.2	85.7	
								Bus_LM1_228	1.770	1.065	70.4	85.7	
								Bus_LM3_208	0.020	0.013	0.8	84.4	
Bus_LM1_228	20.000	84.536	-6.0	0.000	0.000	0.000	0.000	Bus_LM1_227	-1.768	-1.062	70.4	85.7	
								Bus_LM1_229	1.748	1.049	69.6	85.7	
								Bus_LM3_209	0.020	0.013	0.8	84.4	
Bus_LM1_229	20.000	84.407	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_228	-1.746	-1.047	69.6	85.8	
								Bus_LM1_230	0.040	0.023	1.6	86.7	
								Bus_LM1_232	1.685	1.011	67.2	85.7	
								Bus_LM3_210	0.020	0.013	0.8	84.4	
Bus_LM1_230	20.000	84.402	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_229	-0.040	-0.024	1.6	85.7	
								Bus_LM1_231	0.020	0.012	0.8	86.7	
								Bus_LM3_211	0.020	0.013	0.8	84.7	
Bus_LM1_231	20.000	84.399	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_230	-0.020	-0.013	0.8	84.7	
								Bus_LM3_212	0.020	0.013	0.8	84.7	
Bus_LM1_232	20.000	84.283	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_229	-1.683	-1.009	67.2	85.8	
								Bus_LM1_233	1.663	0.996	66.4	85.8	
								Bus_LM3_213	0.020	0.013	0.8	83.8	
Bus_LM1_233	20.000	84.160	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_232	-1.661	-0.994	66.4	85.8	
								Bus_LM1_237	1.641	0.981	65.6	85.8	
								Bus_LM3_214	0.020	0.013	0.8	84.4	
Bus_LM1_236	20.000	83.918	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_237	-1.617	-0.964	64.8	85.9	
								Bus_LM1_239	1.597	0.951	63.9	85.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_217	0.020	0.013	0.8	84.4	
Bus_LM1_237	20.000	84.038	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_233	-1.639	-0.979	65.6	85.9	
								Bus_LM1_236	1.619	0.966	64.8	85.9	
								Bus_LM3_218	0.020	0.013	0.8	84.4	
Bus_LM1_238	20.000	83.683	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_239	-1.574	-0.935	63.1	86.0	
								Bus_LM1_241	1.553	0.922	62.3	86.0	
								Bus_LM3_219	0.020	0.013	0.8	84.4	
Bus_LM1_239	20.000	83.800	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_236	-1.595	-0.950	64.0	85.9	
								Bus_LM1_238	1.575	0.937	63.1	86.0	
								Bus_LM3_220	0.020	0.013	0.8	84.4	
Bus_LM1_240	20.000	83.454	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_241	-1.530	-0.906	61.5	86.1	
								Bus_LM1_243	1.510	0.893	60.7	86.1	
								Bus_LM3_221	0.020	0.013	0.8	84.4	
Bus_LM1_241	20.000	83.568	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_238	-1.552	-0.920	62.3	86.0	
								Bus_LM1_240	1.532	0.908	61.5	86.0	
								Bus_LM3_222	0.020	0.013	0.8	84.4	
Bus_LM1_242	20.000	83.335	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_243	-0.040	-0.024	1.6	85.7	
								Bus_LM1_245	0.020	0.012	0.8	86.6	
								Bus_LM3_223	0.020	0.013	0.8	84.7	
Bus_LM1_243	20.000	83.342	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_240	-1.508	-0.891	60.7	86.1	
								Bus_LM1_242	0.040	0.023	1.6	86.6	
								Bus_LM1_244	1.448	0.855	58.2	86.1	
								Bus_LM3_224	0.020	0.013	0.8	83.7	
Bus_LM1_244	20.000	83.235	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_243	-1.447	-0.853	58.3	86.1	
								Bus_LM1_249	1.427	0.841	57.4	86.1	
								Bus_LM3_225	0.020	0.013	0.8	84.7	
Bus_LM1_245	20.000	83.331	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_242	-0.020	-0.013	0.8	84.8	
								Bus_LM3_226	0.020	0.013	0.8	84.8	
Bus_LM1_249	20.000	83.129	-6.5	0.000	0.000	0.000	0.000	GH LEMITO	1.405	0.827	56.6	86.2	
								Bus_LM1_244	-1.425	-0.840	57.4	86.2	
								Bus_LM3_230	0.020	0.013	0.8	84.7	
Bus_LM1_251	20.000	83.039	-6.5	0.000	0.000	0.000	0.000	GH LEMITO	-1.404	-0.852	57.1	85.5	
								Bus_LM1_253	1.384	0.839	56.3	85.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_232	0.020	0.013	0.8	84.4	
Bus_LM1_253	20.000	82.930	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_251	-1.382	-0.838	56.3	85.5	
								Bus_LM1_254	1.362	0.825	55.4	85.5	
								Bus_LM3_234	0.020	0.013	0.8	84.4	
Bus_LM1_254	20.000	82.823	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_253	-1.360	-0.824	55.4	85.5	
								Bus_LM1_255	1.340	0.812	54.6	85.5	
								Bus_LM3_235	0.020	0.013	0.8	84.4	
Bus_LM1_255	20.000	82.717	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_254	-1.339	-0.811	54.6	85.5	
								Bus_LM1_259	1.318	0.798	53.8	85.6	
								Bus_LM3_236	0.020	0.013	0.8	84.4	
Bus_LM1_258	20.000	82.510	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_259	-1.295	-0.783	53.0	85.6	
								Bus_LM1_267	1.275	0.771	52.1	85.6	
								Bus_LM3_239	0.020	0.013	0.8	84.7	
Bus_LM1_259	20.000	82.613	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_255	-1.317	-0.797	53.8	85.6	
								Bus_LM1_258	1.297	0.784	53.0	85.6	
								Bus_LM3_240	0.020	0.013	0.8	84.4	
Bus_LM1_264	20.000	82.116	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_265	-1.210	-0.729	49.6	85.7	
								Bus_LM1_270	0.040	0.023	1.6	86.3	
								Bus_LM1_275	1.149	0.692	47.2	85.7	
								Bus_LM3_247	0.020	0.013	0.9	83.7	
Bus_LM1_265	20.000	82.212	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_264	1.211	0.730	49.6	85.7	
								Bus_LM1_266	-1.231	-0.742	50.5	85.6	
								Bus_LM3_246	0.020	0.013	0.8	84.4	
Bus_LM1_266	20.000	82.310	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_265	1.232	0.743	50.5	85.6	
								Bus_LM1_267	-1.253	-0.756	51.3	85.6	
								Bus_LM3_245	0.020	0.013	0.9	83.7	
Bus_LM1_267	20.000	82.409	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_258	-1.274	-0.770	52.1	85.6	
								Bus_LM1_266	1.254	0.757	51.3	85.6	
								Bus_LM3_248	0.020	0.013	0.8	84.7	
Bus_LM1_270	20.000	82.108	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_264	-0.040	-0.024	1.6	85.4	
								Bus_LM1_271	0.020	0.012	0.8	86.5	
								Bus_LM3_251	0.020	0.013	0.8	84.4	
Bus_LM1_271	20.000	82.104	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_270	-0.020	-0.013	0.8	84.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_252	0.020	0.013	0.8	84.7	
Bus_LM1_274	20.000	81.907	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.140	-0.084	5.8	85.9	
								Bus_LM1_277	0.121	0.071	4.9	86.1	
								Bus_LM3_255	0.020	0.013	0.8	84.7	
Bus_LM1_275	20.000	82.025	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_264	-1.148	-0.691	47.2	85.7	
								Bus_LM1_278	1.128	0.679	46.3	85.7	
								Bus_LM3_256	0.020	0.013	0.8	84.7	
Bus_LM1_277	20.000	81.884	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_274	-0.121	-0.072	4.9	85.8	
								Bus_LM1_282	0.100	0.059	4.1	86.1	
								Bus_LM3_258	0.020	0.013	0.8	84.4	
Bus_LM1_278	20.000	81.935	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_274	0.141	0.083	5.7	86.2	
								Bus_LM1_275	-1.127	-0.678	46.3	85.7	
								Bus_LM1_285	0.040	0.024	1.6	86.1	
								Bus_LM1_294	0.061	0.036	2.5	85.8	
								Bus_LM1_300	0.886	0.535	36.5	85.6	
Bus_LM1_281	20.000	81.848	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_282	-0.080	-0.048	3.3	85.7	
								Bus_LM1_284	0.060	0.036	2.5	86.1	
								Bus_LM3_262	0.020	0.013	0.8	84.4	
Bus_LM1_282	20.000	81.864	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_281	0.080	0.047	3.3	86.1	
								Bus_LM1_277	-0.100	-0.060	4.1	85.8	
								Bus_LM3_261	0.020	0.013	0.8	84.4	
Bus_LM1_283	20.000	81.828	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_284	-0.040	-0.025	1.7	85.3	
								Bus_LM1_286	0.020	0.012	0.8	86.1	
								Bus_LM3_264	0.020	0.013	0.8	84.4	
Bus_LM1_284	20.000	81.836	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_283	0.040	0.024	1.6	86.1	
								Bus_LM1_281	-0.060	-0.036	2.5	85.5	
								Bus_LM3_263	0.020	0.013	0.8	84.4	
Bus_LM1_285	20.000	81.927	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.040	-0.025	1.7	85.3	
								Bus_LM1_288	0.020	0.012	0.8	86.1	
								Bus_LM3_266	0.020	0.013	0.8	84.4	
Bus_LM1_286	20.000	81.824	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_283	-0.020	-0.013	0.8	84.4	
								Bus_LM3_265	0.020	0.013	0.8	84.4	
Bus_LM1_288	20.000	81.923	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_285	-0.020	-0.013	0.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_268	0.020	0.013	0.8	84.4	
Bus_LM1_292	20.000	81.911	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_293	-0.020	-0.013	0.8	84.7	
								Bus_LM3_273	0.020	0.013	0.8	84.7	
Bus_LM1_293	20.000	81.915	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_292	0.020	0.012	0.8	86.5	
								Bus_LM1_294	-0.040	-0.025	1.7	85.1	
								Bus_LM3_272	0.020	0.013	0.9	83.7	
Bus_LM1_294	20.000	81.923	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.061	-0.037	2.5	85.2	
								Bus_LM1_293	0.040	0.024	1.7	86.0	
								Bus_LM3_274	0.020	0.013	0.9	83.7	
Bus_LM1_298	20.000	81.728	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_299	-0.844	-0.509	34.8	85.6	
								Bus_LM1_307	0.823	0.496	33.9	85.7	
								Bus_LM3_279	0.020	0.013	0.9	83.7	
Bus_LM1_299	20.000	81.796	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_298	0.844	0.510	34.8	85.6	
								Bus_LM1_300	-0.864	-0.522	35.6	85.6	
								Bus_LM3_278	0.020	0.013	0.8	84.4	
Bus_LM1_300	20.000	81.865	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.885	-0.535	36.5	85.6	
								Bus_LM1_299	0.865	0.522	35.6	85.6	
								Bus_LM3_280	0.020	0.013	0.8	84.4	
Bus_LM1_304	20.000	81.639	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_305	-0.020	-0.013	0.8	84.4	
								Bus_LM3_285	0.020	0.013	0.8	84.4	
Bus_LM1_305	20.000	81.643	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_304	0.020	0.012	0.8	86.1	
								Bus_LM1_306	-0.040	-0.025	1.7	85.2	
								Bus_LM3_284	0.020	0.013	0.8	84.4	
Bus_LM1_306	20.000	81.651	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_307	-0.060	-0.036	2.5	85.6	
								Bus_LM1_305	0.040	0.024	1.6	86.1	
								Bus_LM3_286	0.020	0.013	0.8	84.7	
Bus_LM1_307	20.000	81.663	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_298	-0.823	-0.496	34.0	85.6	
								Bus_LM1_306	0.060	0.035	2.5	86.2	
								Bus_LM1_309	0.763	0.461	31.5	85.6	
Bus_LM1_309	20.000	81.602	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_307	-0.762	-0.461	31.5	85.6	
								Bus_LM1_322	0.702	0.424	29.0	85.6	
								Bus_LM1_313	0.040	0.024	1.6	86.1	
								Bus_LM3_288	0.020	0.013	0.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_312	20.000	81.589	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_313	-0.020	-0.013	0.8	84.4	
								Bus_LM3_291	0.020	0.013	0.8	84.4	
Bus_LM1_313	20.000	81.594	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_309	-0.040	-0.025	1.7	85.2	
								Bus_LM1_312	0.020	0.012	0.8	86.1	
								Bus_LM3_292	0.020	0.013	0.8	84.4	
Bus_LM1_318	20.000	81.505	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_319	-0.020	-0.013	0.8	84.7	
								Bus_LM3_300	0.020	0.013	0.8	84.7	
Bus_LM1_319	20.000	81.509	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_318	0.020	0.012	0.8	86.4	
								Bus_LM1_320	-0.040	-0.024	1.7	85.6	
								Bus_LM3_299	0.020	0.013	0.8	84.7	
Bus_LM1_320	20.000	81.517	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_319	0.040	0.023	1.6	86.4	
								Bus_LM1_321	-0.061	-0.037	2.5	85.2	
								Bus_LM3_298	0.021	0.014	0.9	82.7	
Bus_LM1_321	20.000	81.529	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_320	0.061	0.036	2.5	85.8	
								Bus_LM1_322	-0.081	-0.050	3.4	85.0	
								Bus_LM3_297	0.021	0.014	0.9	82.7	
Bus_LM1_322	20.000	81.545	-6.6	0.000	0.000	0.000	0.000	Bus_LM1_309	-0.701	-0.424	29.0	85.6	
								Bus_LM1_321	0.081	0.050	3.4	85.4	
								Bus_LM1_330	0.620	0.375	25.6	85.6	
Bus_LM1_327	20.000	81.356	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_328	-0.558	-0.336	23.1	85.7	
								Bus_LM1_338	0.141	0.084	5.8	85.9	
								Bus_LM1_358	0.101	0.060	4.1	86.0	
								Bus_LM1_359	0.297	0.180	12.3	85.5	
								Bus_LM3_308	0.020	0.013	0.8	84.4	
Bus_LM1_328	20.000	81.401	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_327	0.559	0.336	23.1	85.7	
								Bus_LM1_329	-0.579	-0.349	24.0	85.6	
								Bus_LM3_307	0.020	0.013	0.9	83.7	
Bus_LM1_329	20.000	81.448	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_328	0.579	0.349	24.0	85.6	
								Bus_LM1_330	-0.599	-0.362	24.8	85.6	
								Bus_LM3_306	0.020	0.013	0.8	84.4	
Bus_LM1_330	20.000	81.496	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_329	0.600	0.362	24.8	85.6	
								Bus_LM1_322	-0.620	-0.375	25.7	85.6	
								Bus_LM3_305	0.020	0.013	0.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_335	20.000	81.268	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_336	-0.080	-0.048	3.3	85.8	
								Bus_LM1_343	0.060	0.035	2.5	86.3	
								Bus_LM3_316	0.020	0.013	0.8	84.4	
Bus_LM1_336	20.000	81.284	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_335	0.080	0.047	3.3	86.3	
								Bus_LM1_337	-0.100	-0.060	4.1	85.9	
								Bus_LM3_315	0.020	0.013	0.8	84.4	
Bus_LM1_337	20.000	81.304	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_336	0.100	0.059	4.1	86.2	
								Bus_LM1_338	-0.121	-0.073	5.0	85.6	
								Bus_LM3_314	0.021	0.014	0.9	82.7	
Bus_LM1_338	20.000	81.328	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_337	0.121	0.072	5.0	85.9	
								Bus_LM1_327	-0.141	-0.085	5.8	85.7	
								Bus_LM3_313	0.020	0.013	0.8	84.4	
Bus_LM1_343	20.000	81.256	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_335	-0.060	-0.036	2.5	85.7	
								Bus_LM1_344	0.040	0.023	1.6	86.4	
								Bus_LM3_322	0.020	0.013	0.8	84.4	
Bus_LM1_344	20.000	81.248	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_343	-0.040	-0.024	1.7	85.6	
								Bus_LM1_346	0.020	0.012	0.8	86.4	
								Bus_LM3_321	0.020	0.013	0.8	84.7	
Bus_LM1_345	20.000	81.198	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_375	-0.120	-0.073	5.0	85.5	
								Bus_LM1_380	0.100	0.060	4.2	85.7	
								Bus_LM3_323	0.020	0.013	0.8	84.4	
Bus_LM1_346	20.000	81.244	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_344	-0.020	-0.013	0.8	84.7	
								Bus_LM3_324	0.020	0.013	0.8	84.7	
Bus_LM1_353	20.000	81.309	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_359	-0.297	-0.180	12.3	85.5	
								Bus_LM1_361	0.277	0.168	11.5	85.5	
								Bus_LM3_336	0.020	0.013	0.8	84.4	
Bus_LM1_354	20.000	81.296	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_355	-0.020	-0.013	0.8	84.4	
								Bus_LM3_335	0.020	0.013	0.8	84.4	
Bus_LM1_355	20.000	81.300	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_354	0.020	0.012	0.8	86.1	
								Bus_LM1_356	-0.040	-0.025	1.7	85.2	
								Bus_LM3_334	0.020	0.013	0.8	84.4	
Bus_LM1_356	20.000	81.308	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_355	0.040	0.024	1.7	86.1	
								Bus_LM1_357	-0.060	-0.036	2.5	85.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_333	0.020	0.013	0.8	84.4	
Bus_LM1_357	20.000	81.320	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_356	0.060	0.036	2.5	86.1	
								Bus_LM1_358	-0.080	-0.048	3.3	85.7	
								Bus_LM3_332	0.020	0.013	0.8	84.4	
Bus_LM1_358	20.000	81.336	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_357	0.080	0.047	3.3	86.1	
								Bus_LM1_327	-0.101	-0.061	4.2	85.6	
								Bus_LM3_331	0.020	0.013	0.9	83.7	
Bus_LM1_359	20.000	81.333	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_353	0.297	0.180	12.3	85.5	
								Bus_LM1_327	-0.297	-0.180	12.3	85.5	
Bus_LM1_361	20.000	81.286	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_353	-0.277	-0.168	11.5	85.5	
								Bus_LM1_362	0.257	0.155	10.7	85.6	
								Bus_LM3_338	0.020	0.013	0.8	84.4	
Bus_LM1_362	20.000	81.266	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_361	-0.257	-0.156	10.7	85.5	
								Bus_LM1_369	0.237	0.143	9.8	85.6	
								Bus_LM3_339	0.020	0.013	0.8	84.7	
Bus_LM1_366	20.000	81.235	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_367	-0.020	-0.013	0.8	84.7	
								Bus_LM3_345	0.020	0.013	0.8	84.7	
Bus_LM1_367	20.000	81.239	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_366	0.020	0.012	0.8	86.4	
								Bus_LM1_369	-0.040	-0.024	1.7	85.4	
								Bus_LM3_344	0.020	0.013	0.8	84.4	
Bus_LM1_368	20.000	81.243	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_369	-0.016	-0.010	0.7	84.0	
								Bus_LM3_343	0.016	0.010	0.7	84.0	
Bus_LM1_369	20.000	81.247	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_362	-0.237	-0.143	9.8	85.5	
								Bus_LM1_367	0.040	0.023	1.6	86.3	
								Bus_LM1_368	0.016	0.010	0.7	86.1	
								Bus_LM1_377	0.181	0.110	7.5	85.3	
Bus_LM1_375	20.000	81.208	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_345	0.120	0.073	5.0	85.6	
								Bus_LM1_376	-0.140	-0.085	5.8	85.4	
								Bus_LM3_352	0.020	0.013	0.8	84.4	
Bus_LM1_376	20.000	81.219	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_375	0.140	0.085	5.8	85.5	
								Bus_LM1_377	-0.160	-0.098	6.7	85.4	
								Bus_LM3_351	0.020	0.013	0.8	84.4	
Bus_LM1_377	20.000	81.232	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_376	0.160	0.097	6.7	85.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_369	-0.181	-0.111	7.5	85.2	
								Bus_LM3_350	0.020	0.013	0.9	83.7	
Bus_LM1_380	20.000	81.190	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_345	-0.100	-0.061	4.2	85.5	
								Bus_LM1_384	0.040	0.024	1.7	85.4	
								Bus_LM1_386	0.040	0.024	1.7	86.1	
								Bus_LM3_354	0.020	0.013	0.8	84.7	
Bus_LM1_383	20.000	81.185	-6.7	0.000	0.000	0.000	0.000	LO2 V UJUNG	0.000	0.000	0.0	0.0	
								Bus_LM1_384	-0.020	-0.012	0.8	85.1	
								Bus_LM3_358	0.020	0.013	0.8	84.4	
Bus_LM1_384	20.000	81.187	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_383	0.020	0.012	0.8	85.8	
								Bus_LM1_380	-0.040	-0.025	1.7	85.1	
								Bus_LM3_357	0.020	0.013	0.8	84.4	
Bus_LM1_385	20.000	81.178	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_386	-0.020	-0.013	0.8	84.4	
								Bus_LM3_360	0.020	0.013	0.8	84.4	
Bus_LM1_386	20.000	81.182	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_385	0.020	0.012	0.8	86.1	
								Bus_LM1_380	-0.040	-0.025	1.7	85.2	
								Bus_LM3_359	0.020	0.013	0.8	84.4	
Bus_LM3_3	20.000	91.197	-4.2	0.000	0.000	0.000	0.000	Bus_LM3_188	-3.908	-2.497	146.8	84.3	
								Bus_LM3_5	3.879	2.479	145.7	84.3	
								Bus_LM3_4	0.028	0.018	1.1	84.3	
Bus_LM3_4	0.400	88.514	-4.9	0.000	0.000	0.028	0.017	Bus_LM3_3	-0.028	-0.017	53.0	85.0	
Bus_LM3_5	20.000	90.924	-4.3	0.000	0.000	0.000	0.000	Bus_LM3_3	-3.871	-2.467	145.7	84.3	
								Bus_LM3_7	3.843	2.449	144.7	84.3	
								Bus_LM3_6	0.028	0.018	1.1	84.3	
Bus_LM3_6	0.400	88.235	-5.0	0.000	0.000	0.028	0.017	Bus_LM3_5	-0.028	-0.017	53.2	85.0	
Bus_LM3_7	20.000	90.653	-4.3	0.000	0.000	0.000	0.000	Bus_LM3_5	-3.834	-2.438	144.7	84.4	
								Bus_LM3_9	3.806	2.420	143.6	84.4	
								Bus_LM3_8	0.028	0.018	1.1	84.3	
Bus_LM3_8	0.400	87.958	-5.1	0.000	0.000	0.028	0.017	Bus_LM3_7	-0.028	-0.017	53.3	85.0	
Bus_LM3_9	20.000	90.384	-4.4	0.000	0.000	0.000	0.000	Bus_LM3_7	-3.798	-2.409	143.6	84.4	
								Bus_LM3_11	3.769	2.391	142.6	84.4	
								Bus_LM3_10	0.028	0.018	1.1	84.3	
Bus_LM3_10	0.400	87.684	-5.2	0.000	0.000	0.028	0.017	Bus_LM3_9	-0.028	-0.017	53.4	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_11	20.000	90.117	-4.5	0.000	0.000	0.000	0.000	Bus_LM3_9	-3.761	-2.380	142.6	84.5	
								Bus_LM3_13	3.733	2.362	141.5	84.5	
								Bus_LM3_12	0.028	0.018	1.1	84.3	
Bus_LM3_12	0.400	87.411	-5.2	0.000	0.000	0.028	0.017	Bus_LM3_11	-0.028	-0.017	53.5	85.0	
Bus_LM3_13	20.000	89.852	-4.5	0.000	0.000	0.000	0.000	Bus_LM3_11	-3.725	-2.351	141.5	84.6	
								Bus_LM3_188_	3.717	2.345	141.2	84.6	
								Bus_LM3_14	0.008	0.005	0.3	84.6	
Bus_LM3_14	0.400	88.273	-5.0	0.000	0.000	0.008	0.005	Bus_LM3_13	-0.008	-0.005	15.6	85.0	
Bus_LM3_27	0.400	86.333	-5.5	0.000	0.000	0.027	0.017	Bus_LM3_36	-0.027	-0.017	53.9	85.0	
Bus_LM3_28	0.400	86.068	-5.6	0.000	0.000	0.027	0.017	Bus_LM3_35	-0.027	-0.017	54.1	85.0	
Bus_LM3_29	0.400	85.804	-5.7	0.000	0.000	0.027	0.017	Bus_LM3_34	-0.027	-0.017	54.2	85.0	
Bus_LM3_30	0.400	85.543	-5.8	0.000	0.000	0.027	0.017	Bus_LM3_33	-0.027	-0.017	54.3	85.0	
Bus_LM3_31	0.400	86.684	-5.4	0.000	0.000	0.008	0.005	Bus_LM3_32	-0.008	-0.005	15.8	85.0	
Bus_LM3_32	20.000	88.283	-5.0	0.000	0.000	0.000	0.000	Bus_LM3_41	0.028	0.017	1.1	85.7	
								Bus_LM3_33	-0.036	-0.022	1.4	85.5	
								Bus_LM3_31	0.008	0.005	0.3	84.6	
Bus_LM3_33	20.000	88.289	-5.0	0.000	0.000	0.000	0.000	Bus_LM3_32	0.036	0.021	1.4	86.6	
								Bus_LM3_34	-3.557	-2.210	136.9	84.9	
								Bus_LM3_63	3.493	2.172	134.5	84.9	
								Bus_LM3_30	0.028	0.018	1.1	84.2	
Bus_LM3_34	20.000	88.545	-4.9	0.000	0.000	0.000	0.000	Bus_LM3_33	3.565	2.221	136.9	84.9	
								Bus_LM3_35	-3.593	-2.238	138.0	84.9	
								Bus_LM3_29	0.028	0.018	1.1	84.3	
Bus_LM3_35	20.000	88.802	-4.8	0.000	0.000	0.000	0.000	Bus_LM3_34	3.601	2.249	138.0	84.8	
								Bus_LM3_36	-3.629	-2.267	139.1	84.8	
								Bus_LM3_28	0.028	0.018	1.1	84.3	
Bus_LM3_36	20.000	89.062	-4.7	0.000	0.000	0.000	0.000	Bus_LM3_35	3.637	2.277	139.1	84.8	
								Bus_LM3_37	-3.665	-2.295	140.2	84.8	
								Bus_LM3_27	0.028	0.018	1.1	84.3	
Bus_LM3_37	20.000	89.324	-4.7	0.000	0.000	0.000	0.000	Bus_LM3_188_	-3.701	-2.324	141.2	84.7	
								Bus_LM3_36	3.673	2.306	140.1	84.7	
								Bus_LM3_38	0.028	0.018	1.1	84.3	
Bus_LM3_38	0.400	86.601	-5.5	0.000	0.000	0.027	0.017	Bus_LM3_37	-0.027	-0.017	53.8	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_40	0.400	85.531	-5.8	0.000	0.000	0.027	0.017	Bus_LM3_41	-0.027	-0.017	54.3	85.0	
Bus_LM3_41	20.000	88.278	-5.0	0.000	0.000	0.000	0.000	Bus_LM3_32	-0.028	-0.018	1.1	84.2	
								Bus_LM3_40	0.028	0.018	1.1	84.2	
Bus_LM3_56	0.400	84.491	-6.0	0.000	0.000	0.045	0.028	Bus_LM3_69	-0.045	-0.028	90.2	85.0	
Bus_LM3_57	0.400	84.130	-6.1	0.000	0.000	0.027	0.017	Bus_LM3_68	-0.027	-0.017	54.9	85.0	
Bus_LM3_58	0.400	84.776	-6.0	0.000	0.000	0.045	0.028	Bus_LM3_67	-0.045	-0.028	90.0	85.0	
Bus_LM3_59	0.400	85.273	-5.8	0.000	0.000	0.020	0.012	Bus_LM3_66	-0.020	-0.012	40.0	85.0	
Bus_LM3_60	0.400	84.443	-6.1	0.000	0.000	0.015	0.009	Bus_LM3_65	-0.015	-0.009	30.6	85.0	
Bus_LM3_61	0.400	85.031	-5.9	0.000	0.000	0.027	0.017	Bus_LM3_64	-0.027	-0.017	54.5	85.0	
Bus_LM3_62	0.400	84.953	-5.9	0.000	0.000	0.015	0.009	Bus_LM3_63	-0.015	-0.009	30.5	85.0	
Bus_LM3_63	20.000	88.039	-5.0	0.000	0.000	0.000	0.000	Bus_LM3_33	-3.486	-2.162	134.5	85.0	
								Bus_LM3_64	3.470	2.152	133.9	85.0	
								Bus_LM3_62	0.016	0.010	0.6	84.2	
Bus_LM3_64	20.000	87.789	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_63	-3.463	-2.142	133.9	85.0	
								Bus_LM3_65	3.435	2.124	132.8	85.1	
								Bus_LM3_61	0.028	0.018	1.1	84.2	
Bus_LM3_65	20.000	87.542	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_64	-3.428	-2.115	132.8	85.1	
								Bus_LM3_66	3.412	2.105	132.2	85.1	
								Bus_LM3_60	0.016	0.010	0.6	84.1	
Bus_LM3_66	20.000	87.295	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_65	-3.405	-2.095	132.2	85.2	
								Bus_LM3_67	3.385	2.082	131.4	85.2	
								Bus_LM3_59	0.020	0.013	0.8	84.4	
Bus_LM3_67	20.000	87.051	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_66	-3.378	-2.073	131.4	85.2	
								Bus_LM3_68	0.763	0.455	29.5	85.9	
								Bus_LM3_85	0.151	0.091	5.8	85.6	
								Bus_LM3_117	2.419	1.497	94.3	85.0	
								Bus_LM3_58	0.046	0.029	1.8	84.4	
Bus_LM3_68	20.000	86.908	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_67	-0.762	-0.455	29.5	85.8	
								Bus_LM3_69	0.734	0.437	28.4	85.9	
								Bus_LM3_57	0.028	0.018	1.1	84.2	
Bus_LM3_69	20.000	86.771	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_68	-0.733	-0.438	28.4	85.9	
								Bus_LM3_76	0.687	0.408	26.6	86.0	
								Bus_LM3_56	0.046	0.029	1.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_74	0.400	84.234	-6.1	0.000	0.000	0.045	0.028	Bus_LM3_77	-0.045	-0.028	90.4	85.0	
Bus_LM3_75	0.400	83.857	-6.2	0.000	0.000	0.027	0.017	Bus_LM3_76	-0.027	-0.017	55.0	85.0	
Bus_LM3_76	20.000	86.642	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_69	-0.686	-0.409	26.6	85.9	
								Bus_LM3_77	0.658	0.391	25.5	86.0	
								Bus_LM3_75	0.028	0.018	1.1	84.2	
Bus_LM3_77	20.000	86.519	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_76	-0.658	-0.391	25.5	85.9	
								Bus_LM3_80	0.612	0.362	23.7	86.1	
								Bus_LM3_74	0.046	0.029	1.8	84.4	
Bus_LM3_78	0.400	83.505	-6.2	0.000	0.000	0.027	0.017	Bus_LM3_81	-0.027	-0.017	55.2	85.0	
Bus_LM3_79	0.400	84.117	-6.1	0.000	0.000	0.045	0.028	Bus_LM3_80	-0.045	-0.028	90.5	85.0	
Bus_LM3_80	20.000	86.404	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_77	-0.611	-0.362	23.7	86.0	
								Bus_LM3_81	0.565	0.333	21.9	86.1	
								Bus_LM3_79	0.046	0.029	1.8	84.4	
Bus_LM3_81	20.000	86.298	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_80	-0.565	-0.334	21.9	86.1	
								Bus_LM3_84	0.537	0.316	20.8	86.2	
								Bus_LM3_78	0.028	0.018	1.1	84.2	
Bus_LM3_82	0.400	84.747	-6.0	0.000	0.000	0.045	0.028	Bus_LM3_85	-0.045	-0.028	90.0	85.0	
Bus_LM3_83	0.400	83.906	-6.1	0.000	0.000	0.045	0.028	Bus_LM3_84	-0.045	-0.028	90.6	85.0	
Bus_LM3_84	20.000	86.198	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_81	-0.536	-0.317	20.9	86.1	
								Bus_LM3_140	0.491	0.288	19.0	86.3	
								Bus_LM3_83	0.046	0.029	1.8	84.4	
Bus_LM3_85	20.000	87.023	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_67	-0.151	-0.092	5.9	85.4	
								Bus_LM3_88	0.105	0.063	4.1	85.8	
								Bus_LM3_82	0.046	0.029	1.8	84.4	
Bus_LM3_86	0.400	84.209	-6.1	0.000	0.000	0.027	0.017	Bus_LM3_89	-0.027	-0.017	54.9	85.0	
Bus_LM3_87	0.400	83.890	-6.2	0.000	0.000	0.015	0.009	Bus_LM3_88	-0.015	-0.009	30.8	85.0	
Bus_LM3_88	20.000	87.003	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_85	-0.105	-0.064	4.1	85.4	
								Bus_LM3_89	0.089	0.054	3.5	85.6	
								Bus_LM3_87	0.016	0.010	0.6	84.1	
Bus_LM3_89	20.000	86.986	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_88	-0.089	-0.055	3.5	85.2	
								Bus_LM3_96	0.061	0.037	2.4	85.6	
								Bus_LM3_86	0.028	0.018	1.1	84.2	
Bus_LM3_94	0.400	84.689	-6.0	0.000	0.000	0.045	0.028	Bus_LM3_97	-0.045	-0.028	90.0	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_95	0.400	83.861	-6.2	0.000	0.000	0.015	0.009	Bus_LM3_96	-0.015	-0.009	30.8	85.0	
Bus_LM3_96	20.000	86.974	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_89	-0.061	-0.038	2.4	85.0	
								Bus_LM3_97	0.046	0.028	1.8	85.2	
								Bus_LM3_95	0.016	0.010	0.6	84.1	
Bus_LM3_97	20.000	86.966	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_96	-0.046	-0.029	1.8	84.4	
								Bus_LM3_94	0.046	0.029	1.8	84.4	
Bus_LM3_108	0.400	83.758	-6.3	0.000	0.000	0.015	0.009	Bus_LM3_117	-0.015	-0.009	30.8	85.0	
Bus_LM3_109	0.400	84.419	-6.1	0.000	0.000	0.045	0.028	Bus_LM3_116	-0.045	-0.028	90.2	85.0	
Bus_LM3_110	0.400	84.248	-6.1	0.000	0.000	0.045	0.028	Bus_LM3_115	-0.045	-0.028	90.4	85.0	
Bus_LM3_111	0.400	83.248	-6.4	0.000	0.000	0.015	0.009	Bus_LM3_114	-0.015	-0.009	30.9	85.0	
Bus_LM3_112	0.400	83.933	-6.2	0.000	0.000	0.045	0.028	Bus_LM3_113	-0.045	-0.028	90.6	85.0	
Bus_LM3_113	20.000	86.224	-5.5	0.000	0.000	0.000	0.000	LM3 V UJUNG	2.056	1.262	80.8	85.2	
								Bus_LM3_114	-2.102	-1.291	82.6	85.2	
								Bus_LM3_112	0.046	0.029	1.8	84.4	
Bus_LM3_114	20.000	86.378	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_113	2.105	1.294	82.6	85.2	
								Bus_LM3_115	-2.120	-1.304	83.2	85.2	
								Bus_LM3_111	0.016	0.010	0.6	84.1	
Bus_LM3_115	20.000	86.533	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_114	2.123	1.307	83.2	85.1	
								Bus_LM3_116	-2.301	-1.416	90.1	85.2	
								Bus_LM3_137	0.133	0.080	5.2	85.7	
								Bus_LM3_110	0.046	0.029	1.8	84.4	
Bus_LM3_116	20.000	86.700	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_115	2.304	1.420	90.1	85.1	
								Bus_LM3_117	-2.396	-1.478	93.7	85.1	
								Bus_LM3_109	0.046	0.029	1.8	84.4	
								Bus_LM3_362	0.046	0.029	1.8	84.4	
Bus_LM3_117	20.000	86.875	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_67	-2.415	-1.493	94.3	85.1	
								Bus_LM3_116	2.399	1.483	93.7	85.1	
								Bus_LM3_108	0.016	0.010	0.6	84.1	
Bus_LM3_128	0.400	83.381	-6.4	0.000	0.000	0.015	0.009	Bus_LM3_137	-0.015	-0.009	30.9	85.0	
Bus_LM3_129	0.400	84.200	-6.1	0.000	0.000	0.045	0.028	Bus_LM3_136	-0.045	-0.028	90.4	85.0	
Bus_LM3_130	0.400	83.344	-6.4	0.000	0.000	0.015	0.009	Bus_LM3_135	-0.015	-0.009	30.9	85.0	
Bus_LM3_131	0.400	83.672	-6.3	0.000	0.000	0.027	0.017	Bus_LM3_134	-0.027	-0.017	55.1	85.0	
Bus_LM3_132	0.400	83.667	-6.3	0.000	0.000	0.027	0.017	Bus_LM3_133	-0.027	-0.017	55.1	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_133	20.000	86.456	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_134	-0.028	-0.018	1.1	84.2	
								Bus_LM3_132	0.028	0.018	1.1	84.2	
Bus_LM3_134	20.000	86.461	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_133	0.028	0.017	1.1	85.6	
								Bus_LM3_135	-0.056	-0.035	2.2	84.9	
								Bus_LM3_131	0.028	0.018	1.1	84.2	
Bus_LM3_135	20.000	86.472	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_134	0.056	0.034	2.2	85.6	
								Bus_LM3_136	-0.071	-0.044	2.8	85.3	
								Bus_LM3_130	0.016	0.010	0.6	84.1	
Bus_LM3_136	20.000	86.485	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_135	0.071	0.043	2.8	85.9	
								Bus_LM3_137	-0.117	-0.072	4.6	85.3	
								Bus_LM3_129	0.046	0.029	1.8	84.4	
Bus_LM3_137	20.000	86.508	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_115	-0.133	-0.081	5.2	85.4	
								Bus_LM3_136	0.117	0.071	4.6	85.6	
								Bus_LM3_128	0.016	0.010	0.6	84.1	
Bus_LM3_140	20.000	86.106	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_84	-0.490	-0.288	19.1	86.2	
								Bus_LM3_144	0.470	0.275	18.2	86.3	
								Bus_LM3_141	0.021	0.013	0.8	83.8	
Bus_LM3_141	0.400	81.935	-6.7	0.000	0.000	0.020	0.012	Bus_LM3_140	-0.020	-0.012	41.1	85.0	
Bus_LM3_144	20.000	86.017	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_140	-0.469	-0.275	18.3	86.2	
								Bus_LM3_146	0.449	0.263	17.5	86.3	
								Bus_LM3_145	0.020	0.013	0.8	84.4	
Bus_LM3_145	0.400	83.973	-6.0	0.000	0.000	0.020	0.012	Bus_LM3_144	-0.020	-0.012	40.4	85.0	
Bus_LM3_146	20.000	85.933	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_144	-0.449	-0.263	17.5	86.2	
								Bus_LM3_152	0.428	0.251	16.7	86.3	
								Bus_LM3_147	0.020	0.013	0.8	84.7	
Bus_LM3_147	0.400	84.920	-5.7	0.000	0.000	0.020	0.012	Bus_LM3_146	-0.020	-0.012	40.1	85.0	
Bus_LM3_152	20.000	85.853	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_146	-0.428	-0.251	16.7	86.2	
								Bus_LM1_189	0.164	0.096	6.4	86.3	
								Bus_LM1_193	0.264	0.155	10.3	86.2	
Bus_LM3_153	0.400	81.641	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_189	-0.020	-0.012	41.3	85.0	
Bus_LM3_156	20.000	85.818	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_189	-0.020	-0.013	0.8	84.4	
								Bus_LM3_157	0.020	0.013	0.8	84.4	
Bus_LM3_157	0.400	83.770	-6.1	0.000	0.000	0.020	0.012	Bus_LM3_156	-0.020	-0.012	40.5	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_159	0.400	78.602	-7.6	0.000	0.000	0.020	0.012	Bus_LM1_190	-0.020	-0.012	42.4	85.0	
Bus_LM3_160	20.000	85.783	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_191	-0.081	-0.049	3.2	85.9	
								Bus_LM3_162	0.061	0.036	2.4	86.3	
								Bus_LM3_161	0.020	0.013	0.8	84.4	
Bus_LM3_161	0.400	83.735	-6.1	0.000	0.000	0.020	0.012	Bus_LM3_160	-0.020	-0.012	40.5	85.0	
Bus_LM3_162	20.000	85.772	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_160	-0.061	-0.037	2.4	85.7	
								Bus_LM3_164	0.041	0.024	1.6	86.3	
								Bus_LM3_163	0.020	0.013	0.8	84.4	
Bus_LM3_163	0.400	83.723	-6.1	0.000	0.000	0.020	0.012	Bus_LM3_162	-0.020	-0.012	40.5	85.0	
Bus_LM3_164	20.000	85.764	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_162	-0.041	-0.025	1.6	85.4	
								Bus_LM3_166	0.020	0.012	0.8	86.3	
								Bus_LM3_165	0.020	0.013	0.8	84.4	
Bus_LM3_165	0.400	83.716	-6.1	0.000	0.000	0.020	0.012	Bus_LM3_164	-0.020	-0.012	40.5	85.0	
Bus_LM3_166	20.000	85.760	-5.5	0.000	0.000	0.000	0.000	Bus_LM3_164	-0.020	-0.013	0.8	84.4	
								Bus_LM3_167	0.020	0.013	0.8	84.4	
Bus_LM3_167	0.400	83.712	-6.1	0.000	0.000	0.020	0.012	Bus_LM3_166	-0.020	-0.012	40.5	85.0	
Bus_LM3_170	20.000	85.787	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_190	-0.020	-0.013	0.8	84.4	
								Bus_LM3_171	0.020	0.013	0.8	84.4	
Bus_LM3_171	0.400	83.739	-6.1	0.000	0.000	0.020	0.012	Bus_LM3_170	-0.020	-0.012	40.5	85.0	
Bus_LM3_173	0.400	83.755	-6.1	0.000	0.000	0.020	0.012	Bus_LM1_193	-0.020	-0.012	40.5	85.0	
Bus_LM3_175	0.400	81.573	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_195	-0.020	-0.012	41.3	85.0	
Bus_LM3_176	0.400	83.665	-6.1	0.000	0.000	0.020	0.012	Bus_LM1_196	-0.020	-0.012	40.5	85.0	
Bus_LM3_177	0.400	84.661	-5.8	0.000	0.000	0.020	0.012	Bus_LM1_197	-0.020	-0.012	40.2	85.0	
Bus_LM3_178	0.400	84.657	-5.8	0.000	0.000	0.020	0.012	Bus_LM1_198	-0.020	-0.012	40.2	85.0	
Bus_LM3_180	0.400	83.595	-6.1	0.000	0.000	0.020	0.012	Bus_LM1_200	-0.020	-0.012	40.6	85.0	
Bus_LM3_182	0.400	84.603	-5.8	0.000	0.000	0.020	0.012	Bus_LM1_202	-0.020	-0.012	40.2	85.0	
Bus_LM3_183	0.400	83.544	-6.1	0.000	0.000	0.020	0.012	Bus_LM1_203	-0.020	-0.012	40.6	85.0	
Bus_LM3_184	0.400	83.540	-6.1	0.000	0.000	0.020	0.012	Bus_LM1_204	-0.020	-0.012	40.6	85.0	
Bus_LM3_188	20.000	91.472	-4.1	0.000	0.000	0.000	0.000	B_LM3	-3.945	-2.527	147.8	84.2	
								Bus_LM3_3	3.916	2.509	146.8	84.2	
								Bus_LM3_189	0.028	0.018	1.1	84.3	
Bus_LM3_188_	20.000	89.588	-4.6	0.000	0.000	0.000	0.000	Bus_LM3_13	-3.709	-2.335	141.2	84.6	
								Bus_LM3_37	3.709	2.335	141.2	84.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_189	0.400	88.795	-4.9	0.000	0.000	0.028	0.017	Bus_LM3_188	-0.028	-0.017	52.9	85.0	
Bus_LM3_191	0.400	83.529	-6.1	0.000	0.000	0.020	0.012	Bus_LM1_211	-0.020	-0.012	40.6	85.0	
Bus_LM3_192	0.400	84.561	-5.8	0.000	0.000	0.020	0.012	Bus_LM1_210	-0.020	-0.012	40.2	85.0	
Bus_LM3_193	0.400	84.559	-5.8	0.000	0.000	0.020	0.012	Bus_LM1_209	-0.020	-0.012	40.2	85.0	
Bus_LM3_194	0.400	83.536	-6.1	0.000	0.000	0.020	0.012	Bus_LM1_212	-0.020	-0.012	40.6	85.0	
Bus_LM3_196	0.400	82.781	-6.6	0.000	0.000	0.015	0.009	Bus_LM1_215	-0.015	-0.009	31.0	85.0	
Bus_LM3_198	0.400	83.475	-6.4	0.000	0.000	0.045	0.028	Bus_LM1_217	-0.045	-0.028	91.0	85.0	
Bus_LM3_199	0.400	82.819	-6.6	0.000	0.000	0.027	0.017	Bus_LM1_218	-0.027	-0.017	55.5	85.0	
Bus_LM3_200	0.400	82.672	-6.6	0.000	0.000	0.027	0.017	Bus_LM1_219	-0.027	-0.017	55.6	85.0	
Bus_LM3_201	0.400	82.527	-6.6	0.000	0.000	0.027	0.017	Bus_LM1_220	-0.027	-0.017	55.7	85.0	
Bus_LM3_202	0.400	82.384	-6.7	0.000	0.000	0.027	0.017	Bus_LM1_221	-0.027	-0.017	55.7	85.0	
Bus_LM3_203	0.400	82.243	-6.7	0.000	0.000	0.027	0.017	Bus_LM1_222	-0.027	-0.017	55.8	85.0	
Bus_LM3_205	0.400	83.911	-6.2	0.000	0.000	0.020	0.012	Bus_LM1_224	-0.020	-0.012	40.5	85.0	
Bus_LM3_207	0.400	83.776	-6.3	0.000	0.000	0.020	0.012	Bus_LM1_226	-0.020	-0.012	40.5	85.0	
Bus_LM3_208	0.400	82.598	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_227	-0.020	-0.012	40.9	85.0	
Bus_LM3_209	0.400	82.465	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_228	-0.020	-0.012	41.0	85.0	
Bus_LM3_210	0.400	82.334	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_229	-0.020	-0.012	41.0	85.0	
Bus_LM3_211	0.400	83.376	-6.4	0.000	0.000	0.020	0.012	Bus_LM1_230	-0.020	-0.012	40.6	85.0	
Bus_LM3_212	0.400	83.373	-6.4	0.000	0.000	0.020	0.012	Bus_LM1_231	-0.020	-0.012	40.6	85.0	
Bus_LM3_213	0.400	80.041	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_232	-0.020	-0.012	41.8	85.0	
Bus_LM3_214	0.400	82.082	-6.8	0.000	0.000	0.020	0.012	Bus_LM1_233	-0.020	-0.012	41.1	85.0	
Bus_LM3_217	0.400	81.836	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_236	-0.020	-0.012	41.2	85.0	
Bus_LM3_218	0.400	81.959	-6.8	0.000	0.000	0.020	0.012	Bus_LM1_237	-0.020	-0.012	41.1	85.0	
Bus_LM3_219	0.400	81.597	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_238	-0.020	-0.012	41.3	85.0	
Bus_LM3_220	0.400	81.716	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_239	-0.020	-0.012	41.2	85.0	
Bus_LM3_221	0.400	81.364	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_240	-0.020	-0.012	41.4	85.0	
Bus_LM3_222	0.400	81.480	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_241	-0.020	-0.012	41.3	85.0	
Bus_LM3_223	0.400	82.299	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_242	-0.020	-0.012	41.0	85.0	
Bus_LM3_224	0.400	79.062	-7.7	0.000	0.000	0.020	0.012	Bus_LM1_243	-0.020	-0.012	42.2	85.0	
Bus_LM3_225	0.400	82.198	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_244	-0.020	-0.012	41.1	85.0	
Bus_LM3_226	0.400	82.686	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_245	-0.020	-0.012	40.9	85.0	
Bus_LM3_230	0.400	82.091	-6.8	0.000	0.000	0.020	0.012	Bus_LM1_249	-0.020	-0.012	41.1	85.0	
Bus_LM3_232	0.400	80.941	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_251	-0.020	-0.012	41.5	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_234	0.400	80.830	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_253	-0.020	-0.012	41.5	85.0	
Bus_LM3_235	0.400	80.720	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_254	-0.020	-0.012	41.6	85.0	
Bus_LM3_236	0.400	80.612	-7.2	0.000	0.000	0.020	0.012	Bus_LM1_255	-0.020	-0.012	41.6	85.0	
Bus_LM3_239	0.400	81.467	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_258	-0.020	-0.012	41.3	85.0	
Bus_LM3_240	0.400	80.506	-7.2	0.000	0.000	0.020	0.012	Bus_LM1_259	-0.020	-0.012	41.7	85.0	
Bus_LM3_245	0.400	77.986	-7.9	0.000	0.000	0.020	0.012	Bus_LM1_266	-0.020	-0.012	42.6	85.0	
Bus_LM3_246	0.400	80.098	-7.2	0.000	0.000	0.020	0.012	Bus_LM1_265	-0.020	-0.012	41.8	85.0	
Bus_LM3_247	0.400	77.784	-7.9	0.000	0.000	0.020	0.012	Bus_LM1_264	-0.020	-0.012	42.7	85.0	
Bus_LM3_248	0.400	81.365	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_267	-0.020	-0.012	41.4	85.0	
Bus_LM3_251	0.400	79.992	-7.2	0.000	0.000	0.020	0.012	Bus_LM1_270	-0.020	-0.012	41.9	85.0	
Bus_LM3_252	0.400	81.058	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_271	-0.020	-0.012	41.5	85.0	
Bus_LM3_255	0.400	80.859	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_274	-0.020	-0.012	41.5	85.0	
Bus_LM3_256	0.400	80.977	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_275	-0.020	-0.012	41.5	85.0	
Bus_LM3_258	0.400	79.763	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_277	-0.020	-0.012	41.9	85.0	
Bus_LM3_261	0.400	79.742	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_282	-0.020	-0.012	42.0	85.0	
Bus_LM3_262	0.400	79.726	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_281	-0.020	-0.012	42.0	85.0	
Bus_LM3_263	0.400	79.714	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_284	-0.020	-0.012	42.0	85.0	
Bus_LM3_264	0.400	79.706	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_283	-0.020	-0.012	42.0	85.0	
Bus_LM3_265	0.400	79.702	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_286	-0.020	-0.012	42.0	85.0	
Bus_LM3_266	0.400	79.807	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_285	-0.020	-0.012	41.9	85.0	
Bus_LM3_268	0.400	79.803	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_288	-0.020	-0.012	41.9	85.0	
Bus_LM3_272	0.400	77.574	-8.0	0.000	0.000	0.020	0.012	Bus_LM1_293	-0.020	-0.012	42.8	85.0	
Bus_LM3_273	0.400	80.862	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_292	-0.020	-0.012	41.5	85.0	
Bus_LM3_274	0.400	77.582	-8.0	0.000	0.000	0.020	0.012	Bus_LM1_294	-0.020	-0.012	42.8	85.0	
Bus_LM3_278	0.400	79.673	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_299	-0.020	-0.012	42.0	85.0	
Bus_LM3_279	0.400	77.379	-8.0	0.000	0.000	0.020	0.012	Bus_LM1_298	-0.020	-0.012	42.9	85.0	
Bus_LM3_280	0.400	79.743	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_300	-0.020	-0.012	42.0	85.0	
Bus_LM3_284	0.400	79.517	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_305	-0.020	-0.012	42.0	85.0	
Bus_LM3_285	0.400	79.513	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_304	-0.020	-0.012	42.0	85.0	
Bus_LM3_286	0.400	80.599	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_306	-0.020	-0.012	41.6	85.0	
Bus_LM3_288	0.400	79.475	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_309	-0.020	-0.012	42.1	85.0	
Bus_LM3_291	0.400	79.463	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_312	-0.020	-0.012	42.1	85.0	
Bus_LM3_292	0.400	79.467	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_313	-0.020	-0.012	42.1	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_297	0.400	74.003	-9.0	0.000	0.000	0.019	0.012	Bus_LM1_321	-0.019	-0.012	44.3	85.0	
Bus_LM3_298	0.400	73.990	-9.0	0.000	0.000	0.019	0.012	Bus_LM1_320	-0.019	-0.012	44.4	85.0	
Bus_LM3_299	0.400	80.456	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_319	-0.020	-0.012	41.7	85.0	
Bus_LM3_300	0.400	80.452	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_318	-0.020	-0.012	41.7	85.0	
Bus_LM3_305	0.400	79.367	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_330	-0.020	-0.012	42.1	85.0	
Bus_LM3_306	0.400	79.318	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_329	-0.020	-0.012	42.1	85.0	
Bus_LM3_307	0.400	77.037	-8.1	0.000	0.000	0.020	0.012	Bus_LM1_328	-0.020	-0.012	43.0	85.0	
Bus_LM3_308	0.400	79.225	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_327	-0.020	-0.012	42.2	85.0	
Bus_LM3_313	0.400	79.196	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_338	-0.020	-0.012	42.2	85.0	
Bus_LM3_314	0.400	73.759	-9.1	0.000	0.000	0.019	0.012	Bus_LM1_337	-0.019	-0.012	44.5	85.0	
Bus_LM3_315	0.400	79.151	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_336	-0.020	-0.012	42.2	85.0	
Bus_LM3_316	0.400	79.135	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_335	-0.020	-0.012	42.2	85.0	
Bus_LM3_321	0.400	80.193	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_344	-0.020	-0.012	41.8	85.0	
Bus_LM3_322	0.400	79.123	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_343	-0.020	-0.012	42.2	85.0	
Bus_LM3_323	0.400	79.064	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_345	-0.020	-0.012	42.2	85.0	
Bus_LM3_324	0.400	80.189	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_346	-0.020	-0.012	41.8	85.0	
Bus_LM3_331	0.400	76.969	-8.1	0.000	0.000	0.020	0.012	Bus_LM1_358	-0.020	-0.012	43.1	85.0	
Bus_LM3_332	0.400	79.188	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_357	-0.020	-0.012	42.2	85.0	
Bus_LM3_333	0.400	79.176	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_356	-0.020	-0.012	42.2	85.0	
Bus_LM3_334	0.400	79.168	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_355	-0.020	-0.012	42.2	85.0	
Bus_LM3_335	0.400	79.163	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_354	-0.020	-0.012	42.2	85.0	
Bus_LM3_336	0.400	79.176	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_353	-0.020	-0.012	42.2	85.0	
Bus_LM3_338	0.400	79.154	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_361	-0.020	-0.012	42.2	85.0	
Bus_LM3_339	0.400	80.211	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_362	-0.020	-0.012	41.8	85.0	
Bus_LM3_343	0.400	77.781	-7.8	0.000	0.000	0.016	0.010	Bus_LM1_368	-0.016	-0.010	34.2	85.0	
Bus_LM3_344	0.400	79.105	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_367	-0.020	-0.012	42.2	85.0	
Bus_LM3_345	0.400	80.180	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_366	-0.020	-0.012	41.8	85.0	
Bus_LM3_350	0.400	76.861	-8.1	0.000	0.000	0.020	0.012	Bus_LM1_377	-0.020	-0.012	43.1	85.0	
Bus_LM3_351	0.400	79.085	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_376	-0.020	-0.012	42.2	85.0	
Bus_LM3_352	0.400	79.073	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_375	-0.020	-0.012	42.2	85.0	
Bus_LM3_354	0.400	80.135	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_380	-0.020	-0.012	41.8	85.0	
Bus_LM3_357	0.400	79.052	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_384	-0.020	-0.012	42.2	85.0	
Bus_LM3_358	0.400	79.050	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_383	-0.020	-0.012	42.2	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_359	0.400	79.047	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_386	-0.020	-0.012	42.2	85.0	
Bus_LM3_360	0.400	79.043	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_385	-0.020	-0.012	42.2	85.0	
Bus_LM3_362	0.400	84.419	-6.1	0.000	0.000	0.045	0.028	Bus_LM3_116	-0.045	-0.028	90.2	85.0	
Bus_MR1_GMP1	0.400	100.149	-4.4	0.000	0.000	0.030	0.018	Bus_MR1_GMP2	-0.030	-0.018	50.5	85.0	
Bus_MR1_GMP2	20.000	102.700	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP94	-1.838	-1.126	60.6	85.3	
								Bus_MR1_GMP92	1.808	1.107	59.6	85.3	
								Bus_MR1_GMP1	0.030	0.019	1.0	84.4	
Bus_MR1_GMP5	0.400	99.473	-4.5	0.000	0.000	0.030	0.018	Bus_MR1_GMP6	-0.030	-0.018	50.7	85.0	
Bus_MR1_GMP6	20.000	102.035	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP92	-1.780	-1.090	59.0	85.3	
								Bus_MR1_GMP8	1.750	1.071	58.0	85.3	
								Bus_MR1_GMP5	0.030	0.019	1.0	84.4	
Bus_MR1_GMP7	0.400	98.768	-4.6	0.000	0.000	0.034	0.021	Bus_MR1_GMP8	-0.034	-0.021	58.2	85.0	
Bus_MR1_GMP8	20.000	101.710	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP6	-1.744	-1.069	58.1	85.3	
								Bus_MR1_GMP10	1.710	1.047	56.9	85.3	
								Bus_MR1_GMP7	0.035	0.022	1.2	84.3	
Bus_MR1_GMP9	0.400	98.443	-4.6	0.000	0.000	0.068	0.042	Bus_MR1_GMP10	-0.068	-0.042	116.6	85.0	
Bus_MR1_GMP10	20.000	101.391	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP8	-1.705	-1.044	56.9	85.3	
								Bus_MR1_GMP12	1.636	1.000	54.6	85.3	
								Bus_MR1_GMP9	0.069	0.044	2.3	84.3	
Bus_MR1_GMP11	0.400	98.320	-4.6	0.000	0.000	0.127	0.078	Bus_MR1_GMP12	-0.127	-0.078	218.7	85.0	
Bus_MR1_GMP12	20.000	101.085	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP10	-1.631	-0.998	54.6	85.3	
								Bus_MR1_GMP14	1.502	0.916	50.2	85.4	
								Bus_MR1_GMP11	0.129	0.082	4.4	84.3	
Bus_MR1_GMP13	0.400	97.845	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP14	-0.034	-0.021	58.5	85.0	
Bus_MR1_GMP14	20.000	100.804	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP12	-1.498	-0.914	50.3	85.4	
								Bus_MR1_GMP16	1.463	0.892	49.1	85.4	
								Bus_MR1_GMP13	0.034	0.022	1.2	84.3	
Bus_MR1_GMP15	0.400	97.564	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP16	-0.034	-0.021	58.6	85.0	
Bus_MR1_GMP16	20.000	100.529	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP14	-1.459	-0.891	49.1	85.4	
								Bus_MR1_GMP18	1.425	0.869	47.9	85.4	
								Bus_MR1_GMP15	0.034	0.022	1.2	84.3	
Bus_MR1_GMP17	0.400	97.291	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP18	-0.034	-0.021	58.7	85.0	
Bus_MR1_GMP18	20.000	100.260	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP16	-1.421	-0.868	48.0	85.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_MR1_GMP20	1.387	0.846	46.8	85.4	
								Bus_MR1_GMP17	0.034	0.022	1.2	84.3	
Bus_MR1_GMP19	0.400	97.023	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP20	-0.067	-0.042	117.6	85.0	
Bus_MR1_GMP20	20.000	99.998	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP18	-1.384	-0.845	46.8	85.4	
								Bus_MR1_GMP22	1.315	0.801	44.4	85.4	
								Bus_MR1_GMP19	0.069	0.044	2.4	84.3	
Bus_MR1_GMP21	0.400	96.769	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP22	-0.034	-0.021	58.9	85.0	
Bus_MR1_GMP22	20.000	99.749	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP20	-1.312	-0.800	44.5	85.4	
								Bus_MR1_GMP24	1.278	0.778	43.3	85.4	
								Bus_MR1_GMP21	0.034	0.022	1.2	84.3	
Bus_MR1_GMP23	0.400	96.522	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP24	-0.034	-0.021	59.0	85.0	
Bus_MR1_GMP24	20.000	99.506	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP22	-1.275	-0.777	43.3	85.4	
								Bus_MR1_GMP26	0.606	0.369	20.6	85.4	
								Bus_MR1_GMP55	0.635	0.387	21.6	85.4	
								Bus_MR1_GMP23	0.034	0.022	1.2	84.3	
Bus_MR1_GMP25	0.400	96.404	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP26	-0.067	-0.042	118.1	85.0	
Bus_MR1_GMP26	20.000	99.391	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP24	-0.605	-0.369	20.6	85.3	
								Bus_MR1_GMP28	0.536	0.326	18.2	85.5	
								Bus_MR1_GMP25	0.069	0.044	2.4	84.3	
Bus_MR1_GMP27	0.400	96.300	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP28	-0.067	-0.042	118.2	85.0	
Bus_MR1_GMP28	20.000	99.289	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP26	-0.536	-0.327	18.2	85.4	
								Bus_MR1_GMP30	0.021	0.012	0.7	86.5	
								Bus_MR1_GMP32	0.446	0.270	15.2	85.5	
								Bus_MR1_GMP27	0.068	0.044	2.4	84.3	
Bus_MR1_GMP29	0.400	95.527	-4.9	0.000	0.000	0.021	0.013	Bus_MR1_GMP30	-0.021	-0.013	37.1	85.0	
Bus_MR1_GMP30	20.000	99.285	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP28	-0.021	-0.014	0.7	84.1	
								Bus_MR1_GMP29	0.021	0.014	0.7	84.1	
Bus_MR1_GMP31	0.400	96.214	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP32	-0.067	-0.042	118.2	85.0	
Bus_MR1_GMP32	20.000	99.204	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP28	-0.446	-0.271	15.2	85.4	
								Bus_MR1_GMP34	0.377	0.228	12.8	85.6	
								Bus_MR1_GMP31	0.068	0.044	2.4	84.3	
Bus_MR1_GMP33	0.400	96.140	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP34	-0.033	-0.021	59.1	85.0	
Bus_MR1_GMP34	20.000	99.132	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP32	-0.377	-0.229	12.8	85.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_MR1_GMP36	0.343	0.207	11.7	85.6	
								Bus_MR1_GMP33	0.034	0.022	1.2	84.3	
Bus_MR1_GMP35	0.400	96.074	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP36	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP36	20.000	99.067	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP34	-0.342	-0.208	11.7	85.4	
								Bus_MR1_GMP38	0.308	0.186	10.5	85.6	
								Bus_MR1_GMP35	0.034	0.022	1.2	84.3	
Bus_MR1_GMP37	0.400	96.014	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP38	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP38	20.000	99.008	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP36	-0.308	-0.187	10.5	85.4	
								Bus_MR1_GMP49	0.137	0.083	4.7	85.4	
								Bus_MR1_GMP86	0.137	0.082	4.7	85.7	
								Bus_MR1_GMP37	0.034	0.022	1.2	84.3	
Bus_MR1_GMP43	20.000	98.962	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP86	-0.103	-0.063	3.5	85.3	
								Bus_MR1_GMP45	0.068	0.041	2.3	85.7	
								Bus_MR1_GMP44	0.034	0.022	1.2	84.3	
Bus_MR1_GMP44	0.400	95.967	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP43	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP45	20.000	98.949	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP43	-0.068	-0.042	2.3	85.0	
								Bus_MR1_GMP47	0.034	0.021	1.2	85.7	
								Bus_MR1_GMP46	0.034	0.022	1.2	84.3	
Bus_MR1_GMP46	0.400	95.954	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP45	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP47	20.000	98.942	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP45	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP48	0.034	0.022	1.2	84.3	
Bus_MR1_GMP48	0.400	95.947	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP47	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP49	20.000	98.982	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP38	-0.137	-0.085	4.7	85.0	
								Bus_MR1_GMP51	0.068	0.041	2.3	85.7	
								Bus_MR1_GMP50	0.068	0.044	2.4	84.3	
Bus_MR1_GMP50	0.400	95.987	-4.8	0.000	0.000	0.067	0.041	Bus_MR1_GMP49	-0.067	-0.041	118.4	85.0	
Bus_MR1_GMP51	20.000	98.968	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP49	-0.068	-0.042	2.3	85.0	
								Bus_MR1_GMP53	0.034	0.021	1.2	85.7	
								Bus_MR1_GMP52	0.034	0.022	1.2	84.3	
Bus_MR1_GMP52	0.400	95.973	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP51	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP53	20.000	98.962	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP51	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP54	0.034	0.022	1.2	84.3	
Bus_MR1_GMP54	0.400	95.967	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP53	-0.033	-0.021	59.2	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_MR1_GMP55	20.000	99.402	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP24	-0.634	-0.388	21.6	85.3	
								Bus_MR1_GMP57	0.069	0.042	2.3	85.0	
								Bus_MR1_GMP59	0.069	0.042	2.3	85.0	
								Bus_MR1_GMP61	0.034	0.021	1.2	85.8	
								Bus_MR1_GMP63	0.034	0.021	1.2	85.8	
								Bus_MR1_GMP65	0.103	0.064	3.5	84.8	
								Bus_MR1_GMP97	0.257	0.154	8.7	85.8	
								Bus_MR1_GMP56	0.069	0.044	2.4	84.3	
Bus_MR1_GMP56	0.400	96.415	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP55	-0.067	-0.042	118.1	85.0	
Bus_MR1_GMP57	20.000	99.389	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.069	-0.044	2.4	84.3	
								Bus_MR1_GMP58	0.069	0.044	2.4	84.3	
Bus_MR1_GMP58	0.400	96.402	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP57	-0.067	-0.042	118.1	85.0	
Bus_MR1_GMP59	20.000	99.389	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.069	-0.044	2.4	84.3	
								Bus_MR1_GMP60	0.069	0.044	2.4	84.3	
Bus_MR1_GMP60	0.400	96.402	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP59	-0.067	-0.042	118.1	85.0	
Bus_MR1_GMP61	20.000	99.395	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP62	0.034	0.022	1.2	84.3	
Bus_MR1_GMP62	0.400	96.409	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP61	-0.034	-0.021	59.0	85.0	
Bus_MR1_GMP63	20.000	99.395	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP64	0.034	0.022	1.2	84.3	
Bus_MR1_GMP64	0.400	96.409	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP63	-0.034	-0.021	59.0	85.0	
Bus_MR1_GMP65	20.000	99.382	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.103	-0.065	3.5	84.3	
								Bus_MR1_GMP66	0.103	0.065	3.5	84.3	
Bus_MR1_GMP66	0.400	96.586	-4.7	0.000	0.000	0.101	0.062	Bus_MR1_GMP65	-0.101	-0.062	176.9	85.0	
Bus_MR1_GMP72	20.000	99.311	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP97	-0.223	-0.134	7.6	85.6	
								Bus_MR1_GMP74	0.188	0.112	6.4	85.9	
								Bus_MR1_GMP73	0.034	0.022	1.2	84.3	
Bus_MR1_GMP73	0.400	96.323	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP72	-0.034	-0.021	59.1	85.0	
Bus_MR1_GMP74	20.000	99.275	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP72	-0.188	-0.114	6.4	85.6	
								Bus_MR1_GMP76	0.154	0.092	5.2	85.9	
								Bus_MR1_GMP75	0.034	0.022	1.2	84.3	
Bus_MR1_GMP75	0.400	96.286	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP74	-0.034	-0.021	59.1	85.0	
Bus_MR1_GMP76	20.000	99.246	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP74	-0.154	-0.093	5.2	85.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_MR1_GMP78	0.120	0.071	4.1	86.0	
								Bus_MR1_GMP77	0.034	0.022	1.2	84.3	
Bus_MR1_GMP77	0.400	96.256	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP76	-0.034	-0.021	59.1	85.0	
Bus_MR1_GMP78	20.000	99.223	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP76	-0.120	-0.073	4.1	85.5	
								Bus_MR1_GMP80	0.103	0.062	3.5	85.8	
								Bus_MR1_GMP79	0.017	0.011	0.6	84.3	
Bus_MR1_GMP79	0.400	96.233	-4.8	0.000	0.000	0.017	0.010	Bus_MR1_GMP78	-0.017	-0.010	29.6	85.0	
Bus_MR1_GMP80	20.000	99.203	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP78	-0.103	-0.063	3.5	85.3	
								Bus_MR1_GMP82	0.068	0.041	2.3	85.8	
								Bus_MR1_GMP81	0.034	0.022	1.2	84.3	
Bus_MR1_GMP81	0.400	96.213	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP80	-0.033	-0.021	59.1	85.0	
Bus_MR1_GMP82	20.000	99.190	-4.0	0.000	0.000	0.000	0.000	MR1 V UJUNG	0.000	-0.001	0.0	0.0	
								Bus_MR1_GMP80	-0.068	-0.042	2.3	85.0	
								Bus_MR1_GMP83	0.068	0.044	2.4	84.3	
Bus_MR1_GMP83	0.400	96.200	-4.8	0.000	0.000	0.067	0.042	Bus_MR1_GMP82	-0.067	-0.042	118.2	85.0	
Bus_MR1_GMP86	20.000	98.982	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP43	0.103	0.062	3.5	85.7	
								Bus_MR1_GMP38	-0.137	-0.083	4.7	85.4	
								Bus_MR1_GMP87	0.034	0.022	1.2	84.3	
Bus_MR1_GMP87	0.400	95.987	-4.8	0.000	0.000	0.033	0.021	Bus_MR1_GMP86	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP92	20.000	102.366	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP6	1.785	1.093	59.0	85.3	
								Bus_MR1_GMP2	-1.803	-1.104	59.6	85.3	
								Bus_MR1_GMP93	0.017	0.011	0.6	84.3	
Bus_MR1_GMP93	0.400	99.436	-4.6	0.000	0.000	0.017	0.011	Bus_MR1_GMP92	-0.017	-0.011	29.0	85.0	
Bus_MR1_GMP94	20.000	103.040	-3.8	0.000	0.000	0.000	0.000	GI MARISA	-1.844	-1.129	60.6	85.3	
								Bus_MR1_GMP2	1.844	1.129	60.6	85.3	
Bus_MR1_GMP97	20.000	99.353	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP72	0.223	0.133	7.5	85.9	
								Bus_MR1_GMP55	-0.257	-0.155	8.7	85.7	
								Bus_MR1_GMP98	0.034	0.022	1.2	84.3	
Bus_MR1_GMP98	0.400	96.366	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP97	-0.034	-0.021	59.1	85.0	
B_AG2_GK7	20.000	92.017	-4.0	0.000	0.000	0.000	0.000	GH MARISA	5.181	3.189	190.9	85.2	
								GI MARISA	-5.181	-3.189	190.9	85.2	
*B_GI_MARISA	150.000	100.000	0.0	15.366	11.078	0.000	0.000	GI MARISA	15.366	11.078	72.9	81.1	
B_LM3	20.000	91.750	-4.0	0.000	0.000	0.000	0.000	GH MARISA	-3.954	-2.539	147.8	84.1	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_188	3.954	2.539	147.8	84.1	
B_LMT1_GMT1	20.000	84.399	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT3	-0.071	-0.046	2.9	83.9	
								B_LMT1_GMT2	0.071	0.046	2.9	83.9	
B_LMT1_GMT2	0.400	80.734	-8.5	0.000	0.000	0.069	0.043	B_LMT1_GMT1	-0.069	-0.043	144.7	85.0	
B_LMT1_GMT3	20.000	84.411	-7.4	0.000	0.000	0.000	0.000	B_MR6_GMT130	-0.334	-0.198	13.3	86.0	
								B_LMT1_GMT1	0.071	0.045	2.9	84.3	
								B_LMT1_GMT9	0.263	0.153	10.4	86.5	
B_LMT1_GMT7	0.400	81.351	-8.3	0.000	0.000	0.029	0.018	B_LMT1_GMT8	-0.029	-0.018	59.6	85.0	
B_LMT1_GMT8	20.000	84.365	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT9	-0.029	-0.019	1.2	84.1	
								B_LMT1_GMT7	0.029	0.019	1.2	84.1	
B_LMT1_GMT9	20.000	84.370	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT8	0.029	0.018	1.2	85.0	
								B_LMT1_GMT3	-0.263	-0.154	10.4	86.4	
								B_LMT1_GMT21	0.234	0.136	9.3	86.5	
B_LMT1_GMT16	0.400	83.513	-7.7	0.000	0.000	0.008	0.005	B_LMT1_GMT17	-0.008	-0.005	16.2	85.0	
B_LMT1_GMT17	20.000	84.332	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT21	-0.008	-0.005	0.3	84.8	
								B_LMT1_GMT16	0.008	0.005	0.3	84.8	
B_LMT1_GMT18	0.400	83.393	-7.7	0.000	0.000	0.018	0.011	B_LMT1_GMT19	-0.018	-0.011	35.8	85.0	
B_LMT1_GMT19	20.000	84.296	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT20	-0.018	-0.011	0.7	84.7	
								B_LMT1_GMT18	0.018	0.011	0.7	84.7	
B_LMT1_GMT20	20.000	84.298	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT19	0.018	0.010	0.7	86.2	
								B_LMT1_GMT21	-0.226	-0.132	9.0	86.3	
								B_LMT1_GMT27	0.208	0.122	8.3	86.3	
B_LMT1_GMT21	20.000	84.333	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT17	0.008	0.004	0.3	87.9	
								B_LMT1_GMT9	-0.234	-0.136	9.3	86.4	
								B_LMT1_GMT20	0.226	0.132	9.0	86.4	
B_LMT1_GMT25	0.400	83.935	-7.5	0.000	0.000	0.003	0.002	B_LMT1_GMT28	-0.003	-0.002	6.5	85.0	
B_LMT1_GMT27	20.000	84.266	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT20	-0.208	-0.123	8.3	86.1	
								B_LMT1_GMT28	0.029	0.017	1.2	86.9	
								B_LMT1_GMT35	0.179	0.106	7.1	86.0	
B_LMT1_GMT28	20.000	84.261	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT27	-0.029	-0.017	1.2	86.1	
								B_LMT1_GMT34	0.026	0.015	1.0	86.2	
								B_LMT1_GMT25	0.003	0.002	0.1	84.9	
B_LMT1_GMT32	0.400	81.581	-8.2	0.000	0.000	0.025	0.016	B_LMT1_GMT33	-0.025	-0.016	52.8	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT33	20.000	84.253	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT34	-0.026	-0.017	1.1	84.2	
								B_LMT1_GMT32	0.026	0.017	1.1	84.2	
B_LMT1_GMT34	20.000	84.257	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT33	0.026	0.016	1.0	85.2	
								B_LMT1_GMT28	-0.026	-0.016	1.0	85.2	
B_LMT1_GMT35	20.000	84.238	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT27	-0.179	-0.107	7.1	85.9	
								B_LMT1_GMT42	0.070	0.042	2.8	85.9	
								B_LMT1_GMT61	0.108	0.065	4.3	85.9	
B_LMT1_GMT39	0.400	83.478	-7.7	0.000	0.000	0.007	0.004	B_LMT1_GMT41	-0.007	-0.004	14.6	85.0	
B_LMT1_GMT41	20.000	84.216	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT42	-0.070	-0.043	2.8	85.1	
								B_LMT1_GMT46	0.063	0.039	2.5	85.2	
								B_LMT1_GMT39	0.007	0.005	0.3	84.8	
B_LMT1_GMT42	20.000	84.227	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT35	-0.070	-0.043	2.8	85.5	
								B_LMT1_GMT41	0.070	0.043	2.8	85.5	
B_LMT1_GMT45	0.400	82.256	-8.0	0.000	0.000	0.037	0.023	B_LMT1_GMT46	-0.037	-0.023	77.1	85.0	
B_LMT1_GMT46	20.000	84.206	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT41	-0.063	-0.040	2.6	84.8	
								B_LMT1_GMT48	0.025	0.015	1.0	85.3	
								B_LMT1_GMT45	0.038	0.024	1.5	84.4	
B_LMT1_GMT47	0.400	81.614	-8.2	0.000	0.000	0.025	0.015	B_LMT1_GMT48	-0.025	-0.015	51.2	85.0	
B_LMT1_GMT48	20.000	84.202	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT46	-0.025	-0.016	1.0	84.3	
								B_LMT1_GMT47	0.025	0.016	1.0	84.3	
B_LMT1_GMT55	0.400	83.959	-7.5	0.000	0.000	0.002	0.001	B_LMT1_GMT60	-0.002	-0.001	4.9	85.0	
B_LMT1_GMT56	0.400	81.770	-8.2	0.000	0.000	0.023	0.014	B_LMT1_GMT59	-0.023	-0.014	47.8	85.0	
B_LMT1_GMT57	0.400	82.729	-7.9	0.000	0.000	0.028	0.017	B_LMT1_GMT58	-0.028	-0.017	57.2	85.0	
B_LMT1_GMT58	20.000	84.174	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT59	-0.082	-0.051	3.3	85.1	
								B_LMT1_GMT69	0.054	0.033	2.2	85.4	
								B_LMT1_GMT57	0.028	0.018	1.1	84.6	
B_LMT1_GMT59	20.000	84.187	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT58	0.082	0.050	3.3	85.4	
								B_LMT1_GMT60	-0.106	-0.065	4.3	85.2	
								B_LMT1_GMT56	0.024	0.015	1.0	84.3	
B_LMT1_GMT60	20.000	84.204	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT61	-0.108	-0.066	4.3	85.4	
								B_LMT1_GMT59	0.106	0.065	4.3	85.4	
								B_LMT1_GMT55	0.002	0.001	0.1	84.9	
B_LMT1_GMT61	20.000	84.221	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT35	-0.108	-0.065	4.3	85.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT1_GMT60	0.108	0.065	4.3	85.6	
B_LMT1_GMT66	0.400	81.833	-8.1	0.000	0.000	0.044	0.028	B_LMT1_GMT69	-0.044	-0.028	92.2	85.0	
B_LMT1_GMT67	0.400	83.715	-7.6	0.000	0.000	0.009	0.005	B_LMT1_GMT68	-0.009	-0.005	17.8	85.0	
B_LMT1_GMT68	20.000	84.164	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT69	-0.009	-0.005	0.4	84.9	
								B_LMT1_GMT67	0.009	0.005	0.4	84.9	
B_LMT1_GMT69	20.000	84.166	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT58	-0.054	-0.034	2.2	84.9	
								B_LMT1_GMT68	0.009	0.005	0.3	87.7	
								B_LMT1_GMT66	0.045	0.029	1.8	84.3	
B_LMT1_GMT75	0.400	81.756	-8.2	0.000	0.000	0.024	0.015	B_LMT1_GMT79	-0.024	-0.015	49.5	85.0	
B_LMT1_GMT76	0.400	82.927	-7.8	0.000	0.000	0.013	0.008	B_LMT1_GMT77	-0.013	-0.008	26.1	85.0	
B_LMT1_GMT77	20.000	84.246	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT78	-0.013	-0.008	0.5	84.6	
								B_LMT1_GMT76	0.013	0.008	0.5	84.6	
B_LMT1_GMT78	20.000	84.248	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT77	0.013	0.007	0.5	86.6	
								B_LMT1_GMT79	-0.058	-0.035	2.3	85.7	
								B_LMT1_GMT86	0.045	0.028	1.8	85.5	
B_LMT1_GMT79	20.000	84.257	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT80	-0.083	-0.050	3.3	85.6	
								B_LMT1_GMT78	0.058	0.034	2.3	86.2	
								B_LMT1_GMT75	0.024	0.016	1.0	84.3	
B_LMT1_GMT80	20.000	84.270	-7.4	0.000	0.000	0.000	0.000	B_MR6_GMT130	-1.226	-0.745	49.1	85.5	
								B_LMT1_GMT79	0.083	0.049	3.3	85.9	
								B_LMT1_GMT92	1.144	0.695	45.9	85.4	
B_LMT1_GMT84	0.400	81.902	-8.1	0.000	0.000	0.044	0.028	B_LMT1_GMT85	-0.044	-0.028	92.2	85.0	
B_LMT1_GMT85	20.000	84.234	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT86	-0.045	-0.029	1.8	84.3	
								B_LMT1_GMT84	0.045	0.029	1.8	84.3	
B_LMT1_GMT86	20.000	84.241	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT85	0.045	0.028	1.8	84.9	
								B_LMT1_GMT78	-0.045	-0.028	1.8	84.9	
B_LMT1_GMT90	0.400	82.431	-7.9	0.000	0.000	0.016	0.010	B_LMT1_GMT91	-0.016	-0.010	32.8	85.0	
B_LMT1_GMT91	20.000	84.088	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT92	-0.016	-0.010	0.7	84.5	
								B_LMT1_GMT90	0.016	0.010	0.7	84.5	
B_LMT1_GMT92	20.000	84.090	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT91	0.016	0.010	0.6	86.1	
								B_LMT1_GMT80	-1.141	-0.694	45.9	85.4	
								B_LMT1_GMT103	1.125	0.685	45.2	85.4	
B_LMT1_GMT98	0.400	80.909	-8.4	0.000	0.000	0.056	0.035	B_LMT1_GMT101	-0.056	-0.035	117.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT99	0.400	83.794	-7.5	0.000	0.000	0.005	0.003	B_LMT1_GMT100	-0.005	-0.003	9.7	85.0	
B_LMT1_GMT100	20.000	83.892	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT101	-0.005	-0.003	0.2	85.0	
								B_LMT1_GMT99	0.005	0.003	0.2	85.0	
B_LMT1_GMT101	20.000	83.893	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT100	0.005	0.002	0.2	90.1	
								B_LMT1_GMT102	-0.062	-0.039	2.5	84.6	
								B_LMT1_GMT98	0.058	0.037	2.4	84.1	
B_LMT1_GMT102	20.000	83.903	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT101	0.062	0.039	2.5	85.0	
								B_LMT1_GMT103	-0.062	-0.039	2.5	85.0	
B_LMT1_GMT103	20.000	83.913	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT102	0.062	0.038	2.5	85.4	
								B_LMT1_GMT92	-1.123	-0.684	45.2	85.4	
								B_LMT1_GMT109	1.060	0.646	42.7	85.4	
B_LMT1_GMT107	0.400	80.266	-8.5	0.000	0.000	0.065	0.040	B_LMT1_GMT108	-0.065	-0.040	137.0	85.0	
B_LMT1_GMT108	20.000	83.735	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT109	-0.067	-0.043	2.7	84.0	
								B_LMT1_GMT107	0.067	0.043	2.7	84.0	
B_LMT1_GMT109	20.000	83.745	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT108	0.067	0.042	2.7	84.4	
								B_LMT1_GMT103	-1.058	-0.645	42.7	85.4	
								B_LMT1_GMT110	0.992	0.603	40.0	85.5	
B_LMT1_GMT110	20.000	83.588	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT109	-0.990	-0.602	40.0	85.4	
								B_LMT1_GMT121	0.470	0.278	18.8	86.1	
								B_LMT1_GMT199	0.074	0.045	3.0	85.3	
								B_LMT1_GMT209	0.447	0.279	18.2	84.8	
B_LMT1_GMT116	20.000	83.498	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT121	-0.107	-0.067	4.3	84.8	
								B_LMT1_GMT120	0.107	0.067	4.3	84.8	
B_LMT1_GMT117	0.400	81.123	-8.2	0.000	0.000	0.071	0.044	B_LMT1_GMT120	-0.071	-0.044	149.2	85.0	
B_LMT1_GMT118	0.400	81.725	-8.0	0.000	0.000	0.033	0.021	B_LMT1_GMT119	-0.033	-0.021	69.3	85.0	
B_LMT1_GMT119	20.000	83.475	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT120	-0.034	-0.021	1.4	84.5	
								B_LMT1_GMT118	0.034	0.021	1.4	84.5	
B_LMT1_GMT120	20.000	83.480	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT116	-0.107	-0.067	4.4	84.6	
								B_LMT1_GMT119	0.034	0.021	1.4	85.2	
								B_LMT1_GMT117	0.073	0.046	3.0	84.3	
B_LMT1_GMT121	20.000	83.515	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT110	-0.469	-0.278	18.9	86.0	
								B_LMT1_GMT116	0.107	0.066	4.3	85.1	
								B_LMT1_GMT127	0.363	0.212	14.5	86.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT125	0.400	78.815	-8.9	0.000	0.000	0.042	0.026	B_LMT1_GMT126	-0.042	-0.026	91.4	85.0	
B_LMT1_GMT126	20.000	83.451	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT127	-0.044	-0.029	1.8	83.6	
								B_LMT1_GMT125	0.044	0.029	1.8	83.6	
B_LMT1_GMT127	20.000	83.458	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT126	0.044	0.028	1.8	84.2	
								B_LMT1_GMT121	-0.362	-0.213	14.5	86.2	
								B_LMT1_GMT130	0.318	0.185	12.7	86.5	
B_LMT1_GMT128	0.400	82.994	-7.6	0.000	0.000	0.016	0.010	B_LMT1_GMT129	-0.016	-0.010	32.6	85.0	
B_LMT1_GMT129	20.000	83.405	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT130	-0.016	-0.010	0.7	84.9	
								B_LMT1_GMT128	0.016	0.010	0.7	84.9	
B_LMT1_GMT130	20.000	83.408	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT129	0.016	0.009	0.6	86.4	
								B_LMT1_GMT127	-0.318	-0.185	12.7	86.4	
								B_LMT1_GMT142	0.302	0.176	12.1	86.4	
B_LMT1_GMT137	0.400	81.816	-8.0	0.000	0.000	0.029	0.018	B_LMT1_GMT138	-0.029	-0.018	61.0	85.0	
B_LMT1_GMT138	20.000	83.356	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT142	-0.030	-0.019	1.2	84.6	
								B_LMT1_GMT137	0.030	0.019	1.2	84.6	
B_LMT1_GMT139	0.400	82.530	-7.7	0.000	0.000	0.015	0.009	B_LMT1_GMT140	-0.015	-0.009	31.1	85.0	
B_LMT1_GMT140	20.000	83.315	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT141	-0.015	-0.010	0.6	84.8	
								B_LMT1_GMT139	0.015	0.010	0.6	84.8	
B_LMT1_GMT141	20.000	83.318	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT140	0.015	0.009	0.6	86.4	
								B_LMT1_GMT142	-0.272	-0.159	10.9	86.4	
								B_LMT1_GMT148	0.257	0.150	10.3	86.4	
B_LMT1_GMT142	20.000	83.361	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT138	0.030	0.018	1.2	85.4	
								B_LMT1_GMT130	-0.302	-0.176	12.1	86.3	
								B_LMT1_GMT141	0.272	0.158	10.9	86.4	
B_LMT1_GMT146	0.400	80.223	-8.4	0.000	0.000	0.057	0.035	B_LMT1_GMT147	-0.057	-0.035	120.3	85.0	
B_LMT1_GMT147	20.000	83.268	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT148	-0.058	-0.038	2.4	84.1	
								B_LMT1_GMT146	0.058	0.038	2.4	84.1	
B_LMT1_GMT148	20.000	83.277	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT147	0.058	0.037	2.4	84.5	
								B_LMT1_GMT141	-0.257	-0.150	10.3	86.3	
								B_LMT1_GMT157	0.198	0.114	7.9	86.8	
B_LMT1_GMT152	20.000	83.233	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT157	-0.083	-0.050	3.4	85.7	
								B_LMT1_GMT154	0.083	0.050	3.4	85.7	
B_LMT1_GMT153	0.400	81.594	-8.0	0.000	0.000	0.031	0.019	B_LMT1_GMT154	-0.031	-0.019	64.4	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT154	20.000	83.220	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT152	-0.083	-0.051	3.4	85.4	
								B_LMT1_GMT155	0.052	0.031	2.1	85.9	
								B_LMT1_GMT153	0.031	0.020	1.3	84.5	
B_LMT1_GMT155	20.000	83.212	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT154	-0.052	-0.031	2.1	85.4	
								B_LMT1_GMT163	0.027	0.015	1.1	86.5	
								B_LMT1_GMT156	0.025	0.016	1.0	84.2	
B_LMT1_GMT156	0.400	80.600	-8.3	0.000	0.000	0.025	0.015	B_LMT1_GMT155	-0.025	-0.015	51.6	85.0	
B_LMT1_GMT157	20.000	83.246	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT152	0.083	0.049	3.3	86.0	
								B_LMT1_GMT148	-0.198	-0.114	7.9	86.6	
								B_LMT1_GMT171	0.115	0.065	4.6	87.1	
B_LMT1_GMT162	0.400	82.129	-7.8	0.000	0.000	0.010	0.006	B_LMT1_GMT163	-0.010	-0.006	21.4	85.0	
B_LMT1_GMT163	20.000	83.208	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT155	-0.027	-0.016	1.1	85.5	
								B_LMT1_GMT164	0.016	0.010	0.6	86.1	
								B_LMT1_GMT162	0.010	0.007	0.4	84.7	
B_LMT1_GMT164	20.000	83.205	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT163	-0.016	-0.010	0.7	84.5	
								B_LMT1_GMT165	0.016	0.010	0.7	84.5	
B_LMT1_GMT165	0.400	81.536	-8.0	0.000	0.000	0.016	0.010	B_LMT1_GMT164	-0.016	-0.010	33.0	85.0	
B_LMT1_GMT169	0.400	82.733	-7.6	0.000	0.000	0.005	0.003	B_LMT1_GMT170	-0.005	-0.003	9.8	85.0	
B_LMT1_GMT170	20.000	83.228	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT171	-0.005	-0.003	0.2	84.9	
								B_LMT1_GMT169	0.005	0.003	0.2	84.9	
B_LMT1_GMT171	20.000	83.229	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT170	0.005	0.002	0.2	89.9	
								B_LMT1_GMT157	-0.115	-0.066	4.6	86.9	
								B_LMT1_GMT183	0.110	0.063	4.4	86.8	
B_LMT1_GMT179	0.400	80.155	-8.4	0.000	0.000	0.014	0.009	B_LMT1_GMT180	-0.014	-0.009	30.1	85.0	
B_LMT1_GMT180	20.000	83.202	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT181	-0.015	-0.009	0.6	84.1	
								B_LMT1_GMT179	0.015	0.009	0.6	84.1	
B_LMT1_GMT181	20.000	83.204	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT180	0.015	0.009	0.6	85.8	
								B_LMT1_GMT183	-0.045	-0.028	1.8	85.0	
								B_LMT1_GMT182	0.031	0.019	1.3	84.5	
B_LMT1_GMT182	0.400	81.620	-8.0	0.000	0.000	0.030	0.019	B_LMT1_GMT181	-0.030	-0.019	62.7	85.0	
B_LMT1_GMT183	20.000	83.211	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT171	-0.110	-0.064	4.4	86.5	
								B_LMT1_GMT181	0.045	0.027	1.8	85.5	
								B_LMT1_GMT189	0.065	0.036	2.6	87.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT187	0.400	81.683	-8.0	0.000	0.000	0.046	0.029	B_LMT1_GMT188	-0.046	-0.029	95.7	85.0	
B_LMT1_GMT188	20.000	83.194	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT189	-0.047	-0.029	1.9	84.6	
								B_LMT1_GMT187	0.047	0.029	1.9	84.6	
B_LMT1_GMT189	20.000	83.201	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT188	0.047	0.029	1.9	85.1	
								B_LMT1_GMT183	-0.065	-0.037	2.6	86.9	
								B_LMT1_GMT192	0.018	0.008	0.7	91.2	
B_LMT1_GMT190	0.400	82.370	-7.7	0.000	0.000	0.004	0.002	B_LMT1_GMT191	-0.004	-0.002	8.2	85.0	
B_LMT1_GMT191	20.000	83.198	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT192	-0.004	-0.003	0.2	84.8	
								B_LMT1_GMT190	0.004	0.003	0.2	84.8	
B_LMT1_GMT192	20.000	83.198	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT191	0.004	0.002	0.2	90.8	
								B_LMT1_GMT189	-0.018	-0.009	0.7	89.9	
								B_LMT1_GMT195	0.014	0.007	0.6	89.7	
B_LMT1_GMT193	0.400	81.694	-8.0	0.000	0.000	0.014	0.009	B_LMT1_GMT194	-0.014	-0.009	29.7	85.0	
B_LMT1_GMT194	20.000	83.194	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT195	-0.014	-0.009	0.6	84.6	
								B_LMT1_GMT193	0.014	0.009	0.6	84.6	
B_LMT1_GMT195	20.000	83.196	-7.5	0.000	0.000	0.000	0.000	LMT1 V UJUNG	0.000	-0.001	0.0	0.0	
								B_LMT1_GMT194	0.014	0.008	0.6	86.3	
								B_LMT1_GMT192	-0.014	-0.008	0.6	88.0	
B_LMT1_GMT199	20.000	83.577	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT110	-0.074	-0.046	3.0	84.9	
								B_LMT1_GMT201	0.074	0.046	3.0	84.9	
B_LMT1_GMT200	0.400	81.263	-8.2	0.000	0.000	0.044	0.027	B_LMT1_GMT201	-0.044	-0.027	91.1	85.0	
B_LMT1_GMT201	20.000	83.565	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT199	-0.074	-0.046	3.0	84.6	
								B_LMT1_GMT202	0.029	0.018	1.2	85.0	
								B_LMT1_GMT200	0.044	0.028	1.8	84.3	
B_LMT1_GMT202	20.000	83.560	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT201	-0.029	-0.019	1.2	84.1	
								B_LMT1_GMT203	0.029	0.019	1.2	84.1	
B_LMT1_GMT203	0.400	80.524	-8.4	0.000	0.000	0.028	0.018	B_LMT1_GMT202	-0.028	-0.018	60.0	85.0	
B_LMT1_GMT207	0.400	81.163	-8.2	0.000	0.000	0.044	0.027	B_LMT1_GMT208	-0.044	-0.027	92.8	85.0	
B_LMT1_GMT208	20.000	83.510	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT209	-0.045	-0.029	1.9	84.3	
								B_LMT1_GMT207	0.045	0.029	1.9	84.3	
B_LMT1_GMT209	20.000	83.517	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT208	0.045	0.028	1.8	84.9	
								B_LMT1_GMT110	-0.446	-0.279	18.2	84.8	
								B_LMT1_GMT215	0.401	0.251	16.4	84.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT213	0.400	80.544	-8.4	0.000	0.000	0.055	0.034	B_LMT1_GMT215	-0.055	-0.034	115.0	85.0	
B_LMT1_GMT215	20.000	83.453	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT209	-0.401	-0.252	16.4	84.7	
								B_LMT1_GMT219	0.345	0.216	14.1	84.8	
								B_LMT1_GMT213	0.056	0.036	2.3	84.2	
B_LMT1_GMT218	0.400	80.790	-8.3	0.000	0.000	0.049	0.030	B_LMT1_GMT219	-0.049	-0.030	103.1	85.0	
B_LMT1_GMT219	20.000	83.398	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT215	-0.345	-0.216	14.1	84.7	
								B_LMT1_GMT225	0.294	0.184	12.0	84.8	
								B_LMT1_GMT218	0.050	0.032	2.1	84.2	
B_LMT1_GMT223	0.400	79.687	-8.6	0.000	0.000	0.034	0.021	B_LMT1_GMT224	-0.034	-0.021	72.2	85.0	
B_LMT1_GMT224	20.000	83.345	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT225	-0.035	-0.023	1.4	83.9	
								B_LMT1_GMT223	0.035	0.023	1.4	83.9	
B_LMT1_GMT225	20.000	83.350	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT224	0.035	0.022	1.4	84.7	
								B_LMT1_GMT219	-0.294	-0.185	12.0	84.7	
								B_LMT1_GMT228	0.259	0.163	10.6	84.7	
B_LMT1_GMT226	0.400	80.474	-8.4	0.000	0.000	0.053	0.033	B_LMT1_GMT227	-0.053	-0.033	111.7	85.0	
B_LMT1_GMT227	20.000	83.300	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT228	-0.054	-0.035	2.2	84.2	
								B_LMT1_GMT226	0.054	0.035	2.2	84.2	
B_LMT1_GMT228	20.000	83.309	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT227	0.054	0.034	2.2	84.6	
								B_LMT1_GMT225	-0.259	-0.163	10.6	84.6	
								B_LMT1_GMT238	0.205	0.129	8.4	84.6	
B_LMT1_GMT235	0.400	81.225	-8.1	0.000	0.000	0.039	0.024	B_LMT1_GMT238	-0.039	-0.024	81.1	85.0	
B_LMT1_GMT236	0.400	80.378	-8.4	0.000	0.000	0.027	0.017	B_LMT1_GMT237	-0.027	-0.017	56.7	85.0	
B_LMT1_GMT237	20.000	83.249	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT238	-0.165	-0.105	6.8	84.3	
								B_LMT1_GMT245	0.138	0.088	5.7	84.4	
								B_LMT1_GMT236	0.028	0.018	1.1	84.2	
B_LMT1_GMT238	20.000	83.276	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT228	-0.205	-0.130	8.4	84.5	
								B_LMT1_GMT237	0.165	0.105	6.8	84.5	
								B_LMT1_GMT235	0.040	0.025	1.6	84.4	
B_LMT1_GMT243	0.400	77.470	-9.3	0.000	0.000	0.052	0.032	B_LMT1_GMT244	-0.052	-0.032	113.1	85.0	
B_LMT1_GMT244	20.000	83.215	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT245	-0.073	-0.045	3.0	84.9	
								B_LMT1_GMT252	0.019	0.009	0.7	89.5	
								B_LMT1_GMT243	0.054	0.036	2.3	83.3	
B_LMT1_GMT245	20.000	83.227	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT237	-0.138	-0.088	5.7	84.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT1_GMT244	0.073	0.045	3.0	85.3	
								B_LMT1_GMT246	0.065	0.043	2.7	83.0	
B_LMT1_GMT246	0.400	76.354	-9.6	0.000	0.000	0.061	0.038	B_LMT1_GMT245	-0.061	-0.038	135.2	85.0	
B_LMT1_GMT250	0.400	80.164	-8.4	0.000	0.000	0.014	0.009	B_LMT1_GMT251	-0.014	-0.009	30.1	85.0	
B_LMT1_GMT251	20.000	83.210	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT252	-0.015	-0.009	0.6	84.1	
								B_LMT1_GMT250	0.015	0.009	0.6	84.1	
B_LMT1_GMT252	20.000	83.212	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT251	0.015	0.009	0.6	85.8	
								B_LMT1_GMT244	-0.019	-0.010	0.7	88.2	
								B_LMT1_GMT255	0.004	0.001	0.1	95.9	
B_LMT1_GMT253	0.400	82.384	-7.7	0.000	0.000	0.004	0.002	B_LMT1_GMT254	-0.004	-0.002	8.2	85.0	
B_LMT1_GMT254	20.000	83.211	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT255	-0.004	-0.003	0.2	84.8	
								B_LMT1_GMT253	0.004	0.003	0.2	84.8	
B_LMT1_GMT255	20.000	83.212	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT254	0.004	0.002	0.2	90.8	
								B_LMT1_GMT252	-0.004	-0.002	0.2	90.8	
B_LMT2_1	20.000	84.489	-7.4	0.000	0.000	0.000	0.000	GH TILAMUTA	-0.740	-0.413	29.0	87.3	
								B_LMT2_GMT1	0.740	0.413	29.0	87.3	
B_LMT2_GMT1	20.000	84.376	-7.4	0.000	0.000	0.000	0.000	B_LMT2_1	-0.739	-0.413	29.0	87.3	
								B_LMT2_GMT3	0.739	0.413	29.0	87.3	
B_LMT2_GMT2	0.400	81.676	-8.2	0.000	0.000	0.025	0.015	B_LMT2_GMT3	-0.025	-0.015	51.1	85.0	
B_LMT2_GMT3	20.000	84.263	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT1	-0.738	-0.413	29.0	87.3	
								B_LMT2_GMT7	0.713	0.397	28.0	87.4	
								B_LMT2_GMT2	0.025	0.016	1.0	84.3	
B_LMT2_GMT6	0.400	81.821	-8.2	0.000	0.000	0.044	0.028	B_LMT2_GMT7	-0.044	-0.028	92.3	85.0	
B_LMT2_GMT7	20.000	84.153	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT3	-0.712	-0.397	28.0	87.4	
								B_LMT2_GMT11	0.667	0.368	26.1	87.6	
								B_LMT2_GMT6	0.045	0.029	1.8	84.3	
B_LMT2_GMT10	0.400	83.229	-7.7	0.000	0.000	0.004	0.002	B_LMT2_GMT12	-0.004	-0.002	8.1	85.0	
B_LMT2_GMT11	20.000	84.051	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT7	-0.666	-0.368	26.1	87.5	
								B_LMT2_GMT12	0.004	0.002	0.2	90.9	
								B_LMT2_GMT16	0.662	0.366	26.0	87.5	
B_LMT2_GMT12	20.000	84.051	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT11	-0.004	-0.003	0.2	84.8	
								B_LMT2_GMT10	0.004	0.003	0.2	84.8	
B_LMT2_GMT16	20.000	83.950	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT11	-0.662	-0.366	26.0	87.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT2_GMT18	0.032	0.020	1.3	84.9	
								B_LMT2_GMT26	0.630	0.347	24.7	87.6	
B_LMT2_GMT17	0.400	80.658	-8.5	0.000	0.000	0.031	0.019	B_LMT2_GMT18	-0.031	-0.019	64.9	85.0	
B_LMT2_GMT18	20.000	83.945	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT16	-0.032	-0.020	1.3	84.0	
								B_LMT2_GMT17	0.032	0.020	1.3	84.0	
B_LMT2_GMT23	0.400	80.998	-8.3	0.000	0.000	0.027	0.017	B_LMT2_GMT26	-0.027	-0.017	56.4	85.0	
B_LMT2_GMT24	0.400	81.420	-8.2	0.000	0.000	0.044	0.028	B_LMT2_GMT25	-0.044	-0.028	92.6	85.0	
B_LMT2_GMT25	20.000	83.761	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT26	-0.601	-0.329	23.6	87.7	
								B_LMT2_GMT30	0.556	0.301	21.8	88.0	
								B_LMT2_GMT24	0.045	0.029	1.9	84.3	
B_LMT2_GMT26	20.000	83.853	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT16	-0.629	-0.347	24.7	87.6	
								B_LMT2_GMT25	0.602	0.329	23.6	87.7	
								B_LMT2_GMT23	0.028	0.018	1.1	84.2	
B_LMT2_GMT27	0.400	80.030	-8.6	0.000	0.000	0.034	0.021	B_LMT2_GMT30	-0.034	-0.021	72.0	85.0	
B_LMT2_GMT28	0.400	82.606	-7.8	0.000	0.000	0.010	0.006	B_LMT2_GMT29	-0.010	-0.006	19.6	85.0	
B_LMT2_GMT29	20.000	83.597	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT30	-0.520	-0.278	20.4	88.1	
								B_LMT2_GMT35	0.510	0.272	20.0	88.2	
								B_LMT2_GMT28	0.010	0.006	0.4	84.7	
B_LMT2_GMT30	20.000	83.676	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT25	-0.555	-0.301	21.8	87.9	
								B_LMT2_GMT29	0.520	0.278	20.3	88.2	
								B_LMT2_GMT27	0.035	0.023	1.4	83.9	
B_LMT2_GMT33	0.400	80.921	-8.3	0.000	0.000	0.024	0.015	B_LMT2_GMT34	-0.024	-0.015	49.8	85.0	
B_LMT2_GMT34	20.000	83.441	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT35	-0.509	-0.273	20.0	88.1	
								B_LMT2_GMT39	0.485	0.258	19.0	88.3	
								B_LMT2_GMT33	0.024	0.016	1.0	84.3	
B_LMT2_GMT35	20.000	83.519	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT29	-0.510	-0.273	20.0	88.2	
								B_LMT2_GMT34	0.510	0.273	20.0	88.2	
B_LMT2_GMT39	20.000	83.367	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT34	-0.484	-0.258	19.0	88.3	
								B_LMT2_GMT41	0.003	0.001	0.1	92.3	
								B_LMT2_GMT45	0.481	0.257	18.9	88.2	
B_LMT2_GMT40	0.400	82.707	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT41	-0.003	-0.002	6.5	85.0	
B_LMT2_GMT41	20.000	83.367	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT39	-0.003	-0.002	0.1	84.8	
								B_LMT2_GMT40	0.003	0.002	0.1	84.8	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT44	0.400	79.899	-8.6	0.000	0.000	0.016	0.010	B_LMT2_GMT45	-0.016	-0.010	33.5	85.0	
B_LMT2_GMT45	20.000	83.294	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT39	-0.481	-0.257	18.9	88.2	
								B_LMT2_GMT47	0.465	0.247	18.2	88.3	
								B_LMT2_GMT44	0.016	0.010	0.7	84.0	
B_LMT2_GMT46	0.400	81.808	-8.0	0.000	0.000	0.013	0.008	B_LMT2_GMT47	-0.013	-0.008	28.0	85.0	
B_LMT2_GMT47	20.000	83.223	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT45	-0.464	-0.247	18.2	88.3	
								B_LMT2_GMT55	0.451	0.238	17.7	88.4	
								B_LMT2_GMT46	0.014	0.009	0.6	84.6	
B_LMT2_GMT52	0.400	80.454	-8.4	0.000	0.000	0.025	0.016	B_LMT2_GMT55	-0.025	-0.016	53.4	85.0	
B_LMT2_GMT53	0.400	80.039	-8.5	0.000	0.000	0.014	0.009	B_LMT2_GMT54	-0.014	-0.009	30.1	85.0	
B_LMT2_GMT54	20.000	83.089	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT55	-0.424	-0.223	16.6	88.5	
								B_LMT2_GMT59	0.409	0.213	16.0	88.7	
								B_LMT2_GMT53	0.015	0.009	0.6	84.1	
B_LMT2_GMT55	20.000	83.154	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT47	-0.450	-0.239	17.7	88.4	
								B_LMT2_GMT54	0.424	0.222	16.6	88.6	
								B_LMT2_GMT52	0.026	0.017	1.1	84.2	
B_LMT2_GMT59	20.000	83.027	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT54	-0.409	-0.214	16.0	88.6	
								B_LMT2_GMT61	0.005	0.002	0.2	89.9	
								B_LMT2_GMT67	0.404	0.211	15.9	88.6	
B_LMT2_GMT60	0.400	82.530	-7.7	0.000	0.000	0.005	0.003	B_LMT2_GMT61	-0.005	-0.003	9.8	85.0	
B_LMT2_GMT61	20.000	83.026	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT59	-0.005	-0.003	0.2	84.9	
								B_LMT2_GMT60	0.005	0.003	0.2	84.9	
B_LMT2_GMT66	0.400	82.469	-7.7	0.000	0.000	0.005	0.003	B_LMT2_GMT67	-0.005	-0.003	9.8	85.0	
B_LMT2_GMT67	20.000	82.965	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT59	-0.404	-0.212	15.9	88.6	
								B_LMT2_GMT69	0.399	0.209	15.7	88.6	
								B_LMT2_GMT66	0.005	0.003	0.2	84.9	
B_LMT2_GMT68	0.400	82.407	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT69	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT69	20.000	82.904	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT67	-0.399	-0.209	15.7	88.6	
								B_LMT2_GMT70	0.397	0.208	15.6	88.6	
								B_LMT2_GMT68	0.002	0.001	0.1	84.9	
B_LMT2_GMT70	20.000	82.843	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT69	-0.396	-0.208	15.6	88.5	
								B_LMT2_GMT71	0.094	0.047	3.7	89.3	
								B_LMT2_GMT131	0.302	0.161	11.9	88.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT71	20.000	82.829	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT70	-0.094	-0.048	3.7	89.1	
								B_LMT2_GMT75	0.094	0.048	3.7	89.1	
B_LMT2_GMT75	20.000	82.814	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT71	-0.094	-0.049	3.7	88.8	
								B_LMT2_GMT77	0.004	0.002	0.2	90.7	
								B_LMT2_GMT81	0.090	0.047	3.5	88.7	
B_LMT2_GMT76	0.400	81.983	-7.8	0.000	0.000	0.004	0.002	B_LMT2_GMT77	-0.004	-0.002	8.2	85.0	
B_LMT2_GMT77	20.000	82.814	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT75	-0.004	-0.003	0.2	84.8	
								B_LMT2_GMT76	0.004	0.003	0.2	84.8	
B_LMT2_GMT81	20.000	82.801	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT75	-0.090	-0.048	3.6	88.5	
								B_LMT2_GMT83	0.003	0.001	0.1	92.3	
								B_LMT2_GMT93	0.087	0.046	3.4	88.3	
B_LMT2_GMT82	0.400	82.470	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT83	-0.003	-0.002	6.6	85.0	
B_LMT2_GMT83	20.000	82.800	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT81	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT82	0.003	0.002	0.1	84.9	
B_LMT2_GMT90	0.400	79.888	-8.5	0.000	0.000	0.027	0.017	B_LMT2_GMT91	-0.027	-0.017	57.0	85.0	
B_LMT2_GMT91	20.000	82.772	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT92	-0.028	-0.018	1.1	84.2	
								B_LMT2_GMT90	0.028	0.018	1.1	84.2	
B_LMT2_GMT92	20.000	82.776	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT91	0.028	0.017	1.1	85.1	
								B_LMT2_GMT93	-0.071	-0.038	2.8	88.1	
								B_LMT2_GMT117	0.043	0.021	1.7	90.0	
B_LMT2_GMT93	20.000	82.787	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT81	-0.087	-0.047	3.4	88.1	
								B_LMT2_GMT92	0.071	0.037	2.8	88.4	
								B_LMT2_GMT95	0.016	0.009	0.6	86.3	
B_LMT2_GMT94	0.400	81.954	-7.8	0.000	0.000	0.016	0.010	B_LMT2_GMT95	-0.016	-0.010	32.9	85.0	
B_LMT2_GMT95	20.000	82.785	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT93	-0.016	-0.010	0.7	84.8	
								B_LMT2_GMT94	0.016	0.010	0.7	84.8	
B_LMT2_GMT108	0.400	82.015	-7.8	0.000	0.000	0.007	0.004	B_LMT2_GMT109	-0.007	-0.004	14.8	85.0	
B_LMT2_GMT109	20.000	82.762	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT116	-0.007	-0.005	0.3	84.8	
								B_LMT2_GMT108	0.007	0.005	0.3	84.8	
B_LMT2_GMT110	0.400	82.510	-7.6	0.000	0.000	0.002	0.001	B_LMT2_GMT111	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT111	20.000	82.758	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT115	-0.002	-0.001	0.1	84.9	
								B_LMT2_GMT110	0.002	0.001	0.1	84.9	
B_LMT2_GMT112	0.400	82.422	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT113	-0.003	-0.002	6.6	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT113	20.000	82.753	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT114	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT112	0.003	0.002	0.1	84.9	
B_LMT2_GMT114	20.000	82.754	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT113	0.003	0.001	0.1	92.3	
								B_LMT2_GMT115	-0.031	-0.018	1.2	86.6	
								B_LMT2_GMT125	0.028	0.016	1.1	86.0	
B_LMT2_GMT115	20.000	82.758	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT111	0.002	0.001	0.1	94.4	
								B_LMT2_GMT114	0.031	0.017	1.2	87.4	
								B_LMT2_GMT116	-0.033	-0.018	1.3	88.0	
B_LMT2_GMT116	20.000	82.764	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT109	0.007	0.004	0.3	88.2	
								B_LMT2_GMT115	0.033	0.017	1.3	88.7	
								B_LMT2_GMT117	-0.040	-0.021	1.6	88.6	
B_LMT2_GMT117	20.000	82.770	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT92	-0.043	-0.022	1.7	89.4	
								B_LMT2_GMT116	0.040	0.020	1.6	89.2	
								B_LMT2_GMT119	0.003	0.001	0.1	92.3	
B_LMT2_GMT118	0.400	82.439	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT119	-0.003	-0.002	6.6	85.0	
B_LMT2_GMT119	20.000	82.769	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT117	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT118	0.003	0.002	0.1	84.9	
B_LMT2_GMT123	0.400	79.860	-8.5	0.000	0.000	0.027	0.017	B_LMT2_GMT124	-0.027	-0.017	57.0	85.0	
B_LMT2_GMT124	20.000	82.745	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT125	-0.027	-0.018	1.1	84.2	
								B_LMT2_GMT123	0.027	0.018	1.1	84.2	
B_LMT2_GMT125	20.000	82.749	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT124	0.027	0.017	1.1	85.1	
								B_LMT2_GMT114	-0.027	-0.017	1.1	85.1	
B_LMT2_GMT130	0.400	82.466	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT131	-0.003	-0.002	6.6	85.0	
B_LMT2_GMT131	20.000	82.797	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT70	-0.302	-0.161	11.9	88.2	
								B_LMT2_GMT133	0.299	0.159	11.8	88.2	
								B_LMT2_GMT130	0.003	0.002	0.1	84.9	
B_LMT2_GMT132	0.400	82.420	-7.7	0.000	0.000	0.006	0.004	B_LMT2_GMT133	-0.006	-0.004	13.1	85.0	
B_LMT2_GMT133	20.000	82.751	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT131	-0.299	-0.160	11.8	88.2	
								B_LMT2_GMT145	0.292	0.156	11.6	88.2	
								B_LMT2_GMT132	0.006	0.004	0.3	84.9	
B_LMT2_GMT145	20.000	82.705	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT133	-0.292	-0.156	11.6	88.2	
								B_LMT2_GMT147	0.012	0.007	0.5	86.7	
								B_LMT2_GMT153	0.280	0.149	11.1	88.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT146	0.400	81.451	-8.0	0.000	0.000	0.012	0.007	B_LMT2_GMT147	-0.012	-0.007	24.8	85.0	
B_LMT2_GMT147	20.000	82.704	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT145	-0.012	-0.008	0.5	84.6	
								B_LMT2_GMT146	0.012	0.008	0.5	84.6	
B_LMT2_GMT152	0.400	81.325	-8.0	0.000	0.000	0.013	0.008	B_LMT2_GMT153	-0.013	-0.008	26.5	85.0	
B_LMT2_GMT153	20.000	82.662	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT145	-0.280	-0.150	11.1	88.1	
								B_LMT2_GMT155	0.267	0.142	10.6	88.3	
								B_LMT2_GMT152	0.013	0.008	0.5	84.6	
B_LMT2_GMT154	0.400	81.789	-7.8	0.000	0.000	0.008	0.005	B_LMT2_GMT155	-0.008	-0.005	16.5	85.0	
B_LMT2_GMT155	20.000	82.621	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT153	-0.267	-0.142	10.6	88.2	
								B_LMT2_GMT159	0.259	0.137	10.2	88.3	
								B_LMT2_GMT154	0.008	0.005	0.3	84.8	
B_LMT2_GMT158	0.400	82.084	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT159	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT159	20.000	82.581	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT155	-0.259	-0.138	10.3	88.2	
								B_LMT2_GMT161	0.256	0.137	10.2	88.3	
								B_LMT2_GMT158	0.002	0.001	0.1	84.9	
B_LMT2_GMT160	20.000	82.542	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT161	0.000	0.000	0.0	0.0	
B_LMT2_GMT161	20.000	82.542	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT159	-0.256	-0.137	10.2	88.2	
								B_LMT2_GMT160	0.000	-0.001	0.0	0.0	
								B_LMT2_GMT168	0.256	0.138	10.2	88.1	
B_LMT2_GMT165	0.400	81.628	-7.9	0.000	0.000	0.008	0.005	B_LMT2_GMT166	-0.008	-0.005	16.5	85.0	
B_LMT2_GMT166	20.000	82.461	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT167	-0.008	-0.005	0.3	84.8	
								B_LMT2_GMT165	0.008	0.005	0.3	84.8	
B_LMT2_GMT167	20.000	82.462	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT166	0.008	0.004	0.3	87.8	
								B_LMT2_GMT168	-0.256	-0.139	10.2	87.9	
								B_LMT2_GMT181	0.248	0.135	9.9	87.9	
B_LMT2_GMT168	20.000	82.502	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT161	-0.256	-0.138	10.2	88.0	
								B_LMT2_GMT167	0.256	0.138	10.2	88.0	
B_LMT2_GMT175	0.400	81.754	-7.8	0.000	0.000	0.013	0.008	B_LMT2_GMT176	-0.013	-0.008	26.4	85.0	
B_LMT2_GMT176	20.000	82.419	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT180	-0.013	-0.008	0.5	84.8	
								B_LMT2_GMT175	0.013	0.008	0.5	84.8	
B_LMT2_GMT177	0.400	82.255	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT178	-0.002	-0.001	3.3	85.0	
B_LMT2_GMT178	20.000	82.421	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT179	-0.002	-0.001	0.1	85.0	
								B_LMT2_GMT177	0.002	0.001	0.1	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT179	20.000	82.421	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT178	0.002	0.000	0.1	97.8	
								B_LMT2_GMT180	-0.002	0.000	0.1	97.8	
B_LMT2_GMT180	20.000	82.421	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT176	0.013	0.007	0.5	86.7	
								B_LMT2_GMT179	0.002	0.000	0.1	-98.2	
								B_LMT2_GMT181	-0.014	-0.007	0.6	89.8	
B_LMT2_GMT181	20.000	82.424	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT180	0.014	0.006	0.6	91.4	
								B_LMT2_GMT167	-0.248	-0.135	9.9	87.8	
								B_LMT2_GMT193	0.234	0.129	9.3	87.6	
B_LMT2_GMT188	0.400	81.468	-7.9	0.000	0.000	0.009	0.005	B_LMT2_GMT189	-0.009	-0.005	18.2	85.0	
B_LMT2_GMT189	20.000	82.386	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT193	-0.009	-0.006	0.4	84.7	
								B_LMT2_GMT188	0.009	0.006	0.4	84.7	
B_LMT2_GMT190	0.400	79.452	-8.5	0.000	0.000	0.027	0.017	B_LMT2_GMT191	-0.027	-0.017	57.2	85.0	
B_LMT2_GMT191	20.000	82.347	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT192	-0.027	-0.018	1.1	84.1	
								B_LMT2_GMT190	0.027	0.018	1.1	84.1	
B_LMT2_GMT192	20.000	82.352	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT191	0.027	0.017	1.1	85.0	
								B_LMT2_GMT193	-0.225	-0.125	9.0	87.4	
								B_LMT2_GMT199	0.197	0.108	7.9	87.7	
B_LMT2_GMT193	20.000	82.387	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT189	0.009	0.005	0.4	87.5	
								B_LMT2_GMT192	0.225	0.124	9.0	87.5	
								B_LMT2_GMT181	-0.234	-0.129	9.4	87.5	
B_LMT2_GMT194	0.400	82.155	-7.7	0.000	0.000	0.001	0.000	B_LMT2_GMT195	-0.001	0.000	1.6	85.0	
B_LMT2_GMT195	20.000	82.321	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT199	-0.001	0.000	0.0	85.0	
								B_LMT2_GMT194	0.001	0.000	0.0	85.0	
B_LMT2_GMT196	0.400	81.958	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT197	-0.003	-0.002	6.6	85.0	
B_LMT2_GMT197	20.000	82.290	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT198	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT196	0.003	0.002	0.1	84.9	
B_LMT2_GMT198	20.000	82.290	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT197	0.003	0.001	0.1	92.2	
								B_LMT2_GMT199	-0.196	-0.109	7.9	87.4	
								B_LMT2_GMT205	0.193	0.108	7.8	87.3	
B_LMT2_GMT199	20.000	82.321	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT195	0.001	0.000	0.0	-98.3	
								B_LMT2_GMT198	0.196	0.109	7.9	87.5	
								B_LMT2_GMT192	-0.197	-0.109	7.9	87.6	
B_LMT2_GMT203	0.400	80.614	-8.1	0.000	0.000	0.031	0.019	B_LMT2_GMT204	-0.031	-0.019	64.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT204	20.000	82.255	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT205	-0.031	-0.020	1.3	84.5	
								B_LMT2_GMT203	0.031	0.020	1.3	84.5	
B_LMT2_GMT205	20.000	82.260	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT204	0.031	0.019	1.3	85.3	
								B_LMT2_GMT198	-0.193	-0.109	7.8	87.2	
								B_LMT2_GMT208	0.162	0.089	6.5	87.5	
B_LMT2_GMT206	0.400	79.857	-8.4	0.000	0.000	0.022	0.014	B_LMT2_GMT207	-0.022	-0.014	46.9	85.0	
B_LMT2_GMT207	20.000	82.231	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT208	-0.023	-0.014	0.9	84.3	
								B_LMT2_GMT206	0.023	0.014	0.9	84.3	
B_LMT2_GMT208	20.000	82.235	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT207	0.023	0.014	0.9	85.4	
								B_LMT2_GMT205	-0.162	-0.090	6.5	87.4	
								B_LMT2_GMT221	0.139	0.076	5.6	87.7	
B_LMT2_GMT215	0.400	79.560	-8.5	0.000	0.000	0.024	0.015	B_LMT2_GMT216	-0.024	-0.015	52.1	85.0	
B_LMT2_GMT216	20.000	82.197	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT217	-0.025	-0.016	1.0	84.2	
								B_LMT2_GMT215	0.025	0.016	1.0	84.2	
B_LMT2_GMT217	20.000	82.201	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT216	0.025	0.015	1.0	85.2	
								B_LMT2_GMT218	-0.025	-0.015	1.0	85.2	
B_LMT2_GMT218	20.000	82.205	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT221	-0.049	-0.030	2.0	85.7	
								B_LMT2_GMT217	0.025	0.015	1.0	86.2	
								B_LMT2_GMT220	0.024	0.015	1.0	85.3	
B_LMT2_GMT219	0.400	79.652	-8.4	0.000	0.000	0.024	0.015	B_LMT2_GMT220	-0.024	-0.015	50.4	85.0	
B_LMT2_GMT220	20.000	82.201	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT218	-0.024	-0.015	1.0	84.2	
								B_LMT2_GMT219	0.024	0.015	1.0	84.2	
B_LMT2_GMT221	20.000	82.213	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT218	0.049	0.029	2.0	86.2	
								B_LMT2_GMT208	-0.139	-0.077	5.6	87.5	
								B_LMT2_GMT233	0.025	0.013	1.0	88.2	
								B_LMT2_GMT251	0.065	0.035	2.6	88.2	
B_LMT2_GMT228	0.400	79.831	-8.4	0.000	0.000	0.022	0.014	B_LMT2_GMT229	-0.022	-0.014	47.0	85.0	
B_LMT2_GMT229	20.000	82.205	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT233	-0.023	-0.014	0.9	84.3	
								B_LMT2_GMT228	0.023	0.014	0.9	84.3	
B_LMT2_GMT230	0.400	81.959	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT231	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT231	20.000	82.208	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT232	-0.002	-0.001	0.1	84.9	
								B_LMT2_GMT230	0.002	0.001	0.1	84.9	
B_LMT2_GMT232	20.000	82.209	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT231	0.002	0.001	0.1	94.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT2_GMT233	-0.002	-0.001	0.1	94.3	
B_LMT2_GMT233	20.000	82.209	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT229	0.023	0.014	0.9	85.4	
								B_LMT2_GMT232	0.002	0.000	0.1	99.7	
								B_LMT2_GMT221	-0.025	-0.014	1.0	87.3	
B_LMT2_GMT243	0.400	81.870	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT244	-0.003	-0.002	6.6	85.0	
B_LMT2_GMT244	20.000	82.202	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT251	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT243	0.003	0.002	0.1	84.9	
B_LMT2_GMT245	0.400	80.889	-8.0	0.000	0.000	0.025	0.015	B_LMT2_GMT246	-0.025	-0.015	51.5	85.0	
B_LMT2_GMT246	20.000	82.189	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT250	-0.025	-0.016	1.0	84.6	
								B_LMT2_GMT245	0.025	0.016	1.0	84.6	
B_LMT2_GMT247	0.400	81.855	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT248	-0.002	-0.001	3.3	85.0	
B_LMT2_GMT248	20.000	82.187	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT249	-0.002	-0.001	0.1	84.9	
								B_LMT2_GMT247	0.002	0.001	0.1	84.9	
B_LMT2_GMT249	20.000	82.187	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT248	0.002	0.000	0.1	97.7	
								B_LMT2_GMT250	-0.037	-0.020	1.5	87.6	
								B_LMT2_GMT259	0.035	0.020	1.4	87.1	
B_LMT2_GMT250	20.000	82.193	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT246	0.025	0.015	1.0	85.6	
								B_LMT2_GMT249	0.037	0.020	1.5	88.2	
								B_LMT2_GMT251	-0.062	-0.035	2.5	87.2	
B_LMT2_GMT251	20.000	82.203	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT244	0.003	0.001	0.1	92.2	
								B_LMT2_GMT250	0.062	0.034	2.5	87.6	
								B_LMT2_GMT221	-0.065	-0.035	2.6	87.8	
B_LMT2_GMT258	0.400	81.515	-7.8	0.000	0.000	0.006	0.004	B_LMT2_GMT259	-0.006	-0.004	13.2	85.0	
B_LMT2_GMT259	20.000	82.182	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT249	-0.035	-0.021	1.4	86.4	
								B_LMT2_GMT263	0.029	0.017	1.2	86.7	
								B_LMT2_GMT258	0.006	0.004	0.3	84.8	
B_LMT2_GMT260	0.400	82.011	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT263	-0.002	-0.001	3.3	85.0	
B_LMT2_GMT261	0.400	79.272	-8.5	0.000	0.000	0.027	0.017	B_LMT2_GMT262	-0.027	-0.017	57.3	85.0	
B_LMT2_GMT262	20.000	82.173	-7.6	0.000	0.000	0.000	0.000	LMT2 V UJUNG	0.000	-0.001	0.0	0.0	
								B_LMT2_GMT263	-0.027	-0.017	1.1	85.1	
								B_LMT2_GMT261	0.027	0.018	1.1	84.1	
B_LMT2_GMT263	20.000	82.177	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT262	0.027	0.016	1.1	85.9	
								B_LMT2_GMT259	-0.029	-0.017	1.2	85.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT2_GMT260	0.002	0.001	0.1	85.0	
B_MR3	20.000	100.928	-4.0	0.000	0.000	0.000	0.000	LM.2~	0.000	-0.019	0.5	0.0	
								B_MR04_GM18	0.000	0.019	0.5	0.0	
B_MR04_GM	20.000	102.988	-3.8	0.000	0.000	0.000	0.000	GI MARISA	-3.805	-2.399	126.1	84.6	
								B_MR04_GM1	1.855	1.179	61.6	84.4	
								B_MR04_GM3	1.950	1.221	64.5	84.8	
B_MR04_GM1	20.000	102.838	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM	-1.853	-1.177	61.6	84.4	
								B_MR04_GM2	1.821	1.157	60.6	84.4	
								B_MR04_GM_1	0.032	0.020	1.1	84.4	
B_MR04_GM_1	0.400	100.172	-4.5	0.000	0.000	0.031	0.019	B_MR04_GM1	-0.031	-0.019	52.7	85.0	
B_MR04_GM2	20.000	102.691	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM1	-1.819	-1.156	60.6	84.4	
								B_MR04_GM_2	1.819	1.156	60.6	84.4	
B_MR04_GM_2	0.400	100.139	-4.5	0.000	0.000	1.786	1.107	B_MR04_GM2	-1.786	-1.107	3028.6	85.0	
B_MR04_GM3	20.000	102.875	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM	-1.948	-1.219	64.5	84.8	
								B_MR04_GM4	0.025	0.014	0.8	86.9	
								B_MR04_GM6	1.885	1.181	62.4	84.7	
								B_MR04_GM_3	0.039	0.024	1.3	84.6	
B_MR04_GM_3	0.400	101.260	-4.2	0.000	0.000	0.038	0.024	B_MR04_GM3	-0.038	-0.024	64.0	85.0	
B_MR04_GM4	20.000	102.873	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM5	0.013	0.007	0.4	86.7	
								B_MR04_GM3	-0.025	-0.015	0.8	85.8	
								B_MR04_GM_4	0.012	0.008	0.4	84.8	
B_MR04_GM_4	0.400	101.870	-4.1	0.000	0.000	0.012	0.007	B_MR04_GM4	-0.012	-0.007	19.9	85.0	
B_MR04_GM5	20.000	102.872	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM4	-0.013	-0.008	0.4	84.5	
								B_MR04_GM_5	0.013	0.008	0.4	84.5	
B_MR04_GM_5	0.400	100.757	-4.3	0.000	0.000	0.012	0.008	B_MR04_GM5	-0.012	-0.008	20.9	85.0	
B_MR04_GM6	20.000	102.724	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM3	-1.883	-1.179	62.4	84.7	
								B_MR04_GM7	1.865	1.168	61.8	84.8	
								B_MR04_GM_6	0.017	0.011	0.6	84.3	
B_MR04_GM_6	0.400	99.778	-4.6	0.000	0.000	0.017	0.011	B_MR04_GM6	-0.017	-0.011	29.1	85.0	
B_MR04_GM7	20.000	102.574	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM6	-1.863	-1.167	61.9	84.7	
								B_MR04_GM8	1.836	1.149	61.0	84.8	
								B_MR04_GM_7	0.027	0.017	0.9	83.9	
B_MR04_GM_7	0.400	98.024	-5.0	0.000	0.000	0.026	0.016	B_MR04_GM7	-0.026	-0.016	44.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM8	20.000	102.426	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM7	-1.834	-1.148	61.0	84.8	
								B_MR04_GM9	1.833	1.147	60.9	84.8	
								B_MR04_GM_8	0.001	0.001	0.0	85.0	
B_MR04_GM_8	0.400	102.354	-3.9	0.000	0.000	0.001	0.001	B_MR04_GM8	-0.001	-0.001	1.4	85.0	
B_MR04_GM9	20.000	102.278	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM8	-1.830	-1.146	61.0	84.8	
								B_MR04_GM10	1.751	1.093	58.3	84.8	
								B_MR04_GM_9	0.080	0.053	2.7	83.4	
B_MR04_GM_9	0.400	95.439	-5.6	0.000	0.000	0.076	0.047	B_MR04_GM9	-0.076	-0.047	134.7	85.0	
B_MR04_GM10	20.000	102.137	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM9	-1.749	-1.092	58.3	84.8	
								B_MR04_GM11	1.733	1.082	57.7	84.8	
								B_MR04_GM_10	0.016	0.010	0.5	84.8	
B_MR04_GM_10	0.400	101.461	-4.1	0.000	0.000	0.016	0.010	B_MR04_GM10	-0.016	-0.010	26.8	85.0	
B_MR04_GM11	20.000	101.996	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM10	-1.731	-1.081	57.7	84.8	
								B_MR04_GM12	1.670	1.040	55.7	84.9	
								B_MR04_GM_11	0.060	0.041	2.1	82.5	
B_MR04_GM_11	0.400	91.460	-6.6	0.000	0.000	0.056	0.035	B_MR04_GM11	-0.056	-0.035	103.4	85.0	
B_MR04_GM12	20.000	101.861	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM11	-1.668	-1.039	55.7	84.9	
								B_MR04_GM26	1.650	1.027	55.1	84.9	
								B_MR04_GM_12	0.019	0.012	0.6	84.2	
B_MR04_GM_12	0.400	98.699	-4.7	0.000	0.000	0.018	0.011	B_MR04_GM12	-0.018	-0.011	31.3	85.0	
B_MR04_GM13	20.000	100.926	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM22	-0.201	-0.133	6.9	83.5	
								B_MR04_GM14	0.099	0.063	3.3	84.3	
								B_MR04_GM_13	0.103	0.070	3.6	82.8	
B_MR04_GM_13	0.400	91.879	-6.3	0.000	0.000	0.096	0.060	B_MR04_GM13	-0.096	-0.060	177.8	85.0	
B_MR04_GM14	20.000	100.918	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM13	-0.099	-0.064	3.4	84.0	
								B_MR04_GM49	0.025	0.015	0.8	85.8	
								B_MR04_GM_14	0.074	0.049	2.5	83.4	
B_MR04_GM_14	0.400	94.493	-5.7	0.000	0.000	0.070	0.044	B_MR04_GM14	-0.070	-0.044	126.6	85.0	
B_MR04_GM15	20.000	100.923	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM16	-0.096	-0.063	3.3	83.6	
								B_MR04_GM48	0.038	0.023	1.3	85.3	
								B_MR04_GM_15	0.058	0.040	2.0	82.5	
B_MR04_GM_15	0.400	90.588	-6.6	0.000	0.000	0.054	0.034	B_MR04_GM15	-0.054	-0.034	101.4	85.0	
B_MR04_GM16	20.000	100.931	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM15	0.096	0.063	3.3	83.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR04_GM22	-0.154	-0.078	4.9	89.3	
								B_MR04_GM17	0.053	0.012	1.6	97.4	
								B_MR04_GM_16	0.005	0.003	0.2	85.0	
B_MR04_GM_16	0.400	100.739	-4.0	0.000	0.000	0.005	0.003	B_MR04_GM16	-0.005	-0.003	7.6	85.0	
B_MR04_GM17	20.000	100.927	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM16	-0.053	-0.013	1.6	97.1	
								B_MR04_GM18	0.018	-0.010	0.6	-87.6	
								B_MR04_GM_17	0.035	0.023	1.2	84.3	
B_MR04_GM_17	0.400	97.890	-4.8	0.000	0.000	0.035	0.021	B_MR04_GM17	-0.035	-0.021	60.0	85.0	
B_MR04_GM18	20.000	100.927	-4.0	0.000	0.000	0.000	0.000	B_MR3	0.000	-0.020	0.6	0.0	
								B_MR04_GM17	-0.018	0.009	0.6	-89.1	
								B_MR04_GM_18	0.018	0.011	0.6	84.6	
B_MR04_GM_18	0.400	99.433	-4.4	0.000	0.000	0.017	0.011	B_MR04_GM18	-0.017	-0.011	29.6	85.0	
B_MR04_GM19	20.000	100.925	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM22	-0.213	-0.137	7.2	84.1	
								B_MR04_GM20	0.115	0.074	3.9	84.2	
								B_MR04_GM_19	0.098	0.063	3.3	84.0	
B_MR04_GM_19	0.400	96.714	-5.1	0.000	0.000	0.095	0.059	B_MR04_GM19	-0.095	-0.059	166.3	85.0	
B_MR04_GM20	20.000	100.915	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM19	-0.115	-0.074	3.9	84.0	
								B_MR04_GM21	0.050	0.032	1.7	84.5	
								B_MR04_GM_20	0.065	0.043	2.2	83.6	
B_MR04_GM_20	0.400	95.280	-5.4	0.000	0.000	0.062	0.039	B_MR04_GM20	-0.062	-0.039	111.1	85.0	
B_MR04_GM21	20.000	100.911	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM20	-0.050	-0.033	1.7	84.0	
								B_MR04_GM_21	0.050	0.033	1.7	84.0	
B_MR04_GM_21	0.400	96.568	-5.1	0.000	0.000	0.049	0.030	B_MR04_GM21	-0.049	-0.030	85.8	85.0	
B_MR04_GM22	20.000	100.942	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM13	0.201	0.132	6.9	83.7	
								B_MR04_GM16	0.154	0.077	4.9	89.4	
								B_MR04_GM19	0.213	0.136	7.2	84.3	
								B_MR04_GM23	-0.589	-0.358	19.7	85.5	
								B_MR04_GM_22	0.021	0.013	0.7	84.8	
B_MR04_GM_22	0.400	100.037	-4.2	0.000	0.000	0.021	0.013	B_MR04_GM22	-0.021	-0.013	35.9	85.0	
B_MR04_GM23	20.000	100.990	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM22	0.590	0.358	19.7	85.5	
								B_MR04_GM25	-0.652	-0.401	21.9	85.2	
								B_MR04_GM_23	0.062	0.043	2.2	82.3	
B_MR04_GM_23	0.400	89.964	-6.8	0.000	0.000	0.057	0.035	B_MR04_GM23	-0.057	-0.035	108.1	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM24	20.000	101.099	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM32	-0.744	-0.458	25.0	85.1	
								B_MR04_GM25	0.691	0.424	23.2	85.2	
								B_MR04_GM_24	0.053	0.034	1.8	83.9	
B_MR04_GM_24	0.400	96.556	-5.1	0.000	0.000	0.051	0.032	B_MR04_GM24	-0.051	-0.032	89.7	85.0	
B_MR04_GM25	20.000	101.043	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM23	0.652	0.400	21.9	85.2	
								B_MR04_GM24	-0.691	-0.425	23.2	85.2	
								B_MR04_GM_25	0.039	0.024	1.3	84.6	
B_MR04_GM_25	0.400	99.389	-4.4	0.000	0.000	0.038	0.024	B_MR04_GM25	-0.038	-0.024	65.5	85.0	
B_MR04_GM26	20.000	101.728	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM12	-1.648	-1.026	55.1	84.9	
								B_MR04_GM27	1.618	1.007	54.1	84.9	
								B_MR04_GM_26	0.029	0.019	1.0	84.4	
B_MR04_GM_26	0.400	99.223	-4.6	0.000	0.000	0.029	0.018	B_MR04_GM26	-0.029	-0.018	49.5	85.0	
B_MR04_GM27	20.000	101.597	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM26	-1.616	-1.006	54.1	84.9	
								B_MR04_GM28	1.208	0.750	40.4	85.0	
								B_MR04_GM40	0.333	0.206	11.1	85.0	
								B_MR04_GM_27	0.076	0.050	2.6	83.4	
B_MR04_GM_27	0.400	95.014	-5.6	0.000	0.000	0.073	0.045	B_MR04_GM27	-0.073	-0.045	129.7	85.0	
B_MR04_GM28	20.000	101.499	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM27	-1.207	-0.750	40.4	84.9	
								B_MR04_GM29	1.186	0.736	39.7	84.9	
								B_MR04_GM_28	0.021	0.013	0.7	84.6	
B_MR04_GM_28	0.400	99.716	-4.4	0.000	0.000	0.021	0.013	B_MR04_GM28	-0.021	-0.013	35.3	85.0	
B_MR04_GM29	20.000	101.402	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM28	-1.185	-0.736	39.7	84.9	
								B_MR04_GM30	1.152	0.715	38.6	85.0	
								B_MR04_GM_29	0.033	0.021	1.1	84.3	
B_MR04_GM_29	0.400	98.624	-4.7	0.000	0.000	0.032	0.020	B_MR04_GM29	-0.032	-0.020	54.9	85.0	
B_MR04_GM30	20.000	101.309	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM29	-1.151	-0.715	38.6	84.9	
								B_MR04_GM31	1.084	0.671	36.3	85.0	
								B_MR04_GM_30	0.068	0.044	2.3	83.6	
B_MR04_GM_30	0.400	95.462	-5.5	0.000	0.000	0.065	0.040	B_MR04_GM30	-0.065	-0.040	115.3	85.0	
B_MR04_GM31	20.000	101.221	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM32	0.749	0.460	25.1	85.2	
								B_MR04_GM30	-1.083	-0.671	36.3	85.0	
								B_MR04_GM33	0.305	0.192	10.3	84.6	
								B_MR04_GM_31	0.029	0.018	1.0	84.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM_31	0.400	99.993	-4.3	0.000	0.000	0.029	0.018	B_MR04_GM31	-0.029	-0.018	48.6	85.0	
B_MR04_GM32	20.000	101.160	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM24	0.744	0.458	24.9	85.2	
								B_MR04_GM31	-0.749	-0.461	25.1	85.2	
								B_MR04_GM_32	0.004	0.003	0.1	84.8	
B_MR04_GM_32	0.400	100.418	-4.2	0.000	0.000	0.004	0.003	B_MR04_GM32	-0.004	-0.003	7.3	85.0	
B_MR04_GM33	20.000	101.196	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM31	-0.304	-0.193	10.3	84.5	
								B_MR04_GM34	0.288	0.183	9.7	84.4	
								B_MR04_GM_33	0.017	0.010	0.6	84.8	
B_MR04_GM_33	0.400	100.493	-4.2	0.000	0.000	0.016	0.010	B_MR04_GM33	-0.016	-0.010	27.9	85.0	
B_MR04_GM34	20.000	101.172	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM33	-0.288	-0.183	9.7	84.4	
								B_MR04_GM35	0.218	0.139	7.4	84.4	
								B_MR04_GM_34	0.070	0.045	2.4	84.3	
B_MR04_GM_34	0.400	98.176	-4.7	0.000	0.000	0.068	0.042	B_MR04_GM34	-0.068	-0.042	118.5	85.0	
B_MR04_GM35	20.000	101.154	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM34	-0.218	-0.139	7.4	84.3	
								B_MR04_GM36	0.029	0.016	0.9	86.6	
								B_MR04_GM39	0.105	0.067	3.5	84.4	
								B_MR04_GM_35	0.084	0.056	2.9	83.2	
B_MR04_GM_35	0.400	93.809	-5.9	0.000	0.000	0.080	0.049	B_MR04_GM35	-0.080	-0.049	144.6	85.0	
B_MR04_GM36	20.000	101.152	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM35	-0.029	-0.017	1.0	85.7	
								B_MR04_GM37	0.023	0.014	0.8	85.9	
								B_MR04_GM_36	0.005	0.003	0.2	84.8	
B_MR04_GM_36	0.400	100.227	-4.2	0.000	0.000	0.005	0.003	B_MR04_GM36	-0.005	-0.003	9.2	85.0	
B_MR04_GM37	20.000	101.150	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM36	-0.023	-0.015	0.8	84.8	
								B_MR04_GM_37	0.023	0.015	0.8	84.8	
B_MR04_GM_37	0.400	100.165	-4.2	0.000	0.000	0.023	0.014	B_MR04_GM37	-0.023	-0.014	39.0	85.0	
B_MR04_GM38	20.000	101.141	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM39	-0.055	-0.035	1.9	83.9	
								B_MR04_GM_38	0.055	0.035	1.9	83.9	
B_MR04_GM_38	0.400	96.441	-5.2	0.000	0.000	0.053	0.033	B_MR04_GM38	-0.053	-0.033	92.8	85.0	
B_MR04_GM39	20.000	101.145	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM38	0.055	0.035	1.8	84.4	
								B_MR04_GM35	-0.105	-0.067	3.6	84.2	
								B_MR04_GM_39	0.050	0.033	1.7	84.0	
B_MR04_GM_39	0.400	96.812	-5.1	0.000	0.000	0.049	0.030	B_MR04_GM39	-0.049	-0.030	85.6	85.0	
B_MR04_GM40	20.000	101.570	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM27	-0.333	-0.207	11.1	84.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR04_GM41	0.278	0.172	9.3	85.0	
								B_MR04_GM_40	0.055	0.035	1.9	84.4	
B_MR04_GM_40	0.400	99.230	-4.5	0.000	0.000	0.054	0.034	B_MR04_GM40	-0.054	-0.034	92.6	85.0	
B_MR04_GM41	20.000	101.547	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM40	-0.278	-0.172	9.3	84.9	
								B_MR04_GM42	0.031	0.018	1.0	86.5	
								B_MR04_GM44	0.186	0.116	6.2	84.9	
								B_MR04_GM_41	0.060	0.038	2.0	84.4	
B_MR04_GM_41	0.400	98.980	-4.6	0.000	0.000	0.059	0.037	B_MR04_GM41	-0.059	-0.037	101.6	85.0	
B_MR04_GM42	20.000	101.545	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM41	-0.031	-0.019	1.0	85.7	
								B_MR04_GM43	0.014	0.008	0.4	86.7	
								B_MR04_GM_42	0.018	0.011	0.6	84.8	
B_MR04_GM_42	0.400	100.802	-4.1	0.000	0.000	0.017	0.011	B_MR04_GM42	-0.017	-0.011	29.4	85.0	
B_MR04_GM43	20.000	101.543	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM42	-0.014	-0.009	0.5	84.7	
								B_MR04_GM_43	0.014	0.009	0.5	84.7	
B_MR04_GM_43	0.400	100.387	-4.2	0.000	0.000	0.014	0.008	B_MR04_GM43	-0.014	-0.008	22.9	85.0	
B_MR04_GM44	20.000	101.532	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM41	-0.186	-0.117	6.2	84.7	
								B_MR04_GM45	0.115	0.071	3.8	85.0	
								B_MR04_GM_44	0.071	0.045	2.4	84.3	
B_MR04_GM_44	0.400	98.493	-4.7	0.000	0.000	0.070	0.043	B_MR04_GM44	-0.070	-0.043	120.1	85.0	
B_MR04_GM45	20.000	101.523	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM44	-0.115	-0.072	3.9	84.8	
								B_MR04_GM46	0.096	0.060	3.2	84.8	
								B_MR04_GM_45	0.019	0.012	0.6	84.6	
B_MR04_GM_45	0.400	99.953	-4.3	0.000	0.000	0.018	0.011	B_MR04_GM45	-0.018	-0.011	31.1	85.0	
B_MR04_GM46	20.000	101.515	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM45	-0.096	-0.061	3.2	84.5	
								B_MR04_GM47	0.052	0.033	1.7	84.5	
								B_MR04_GM_46	0.045	0.028	1.5	84.6	
B_MR04_GM_46	0.400	99.623	-4.4	0.000	0.000	0.044	0.027	B_MR04_GM46	-0.044	-0.027	74.9	85.0	
B_MR04_GM47	20.000	101.511	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM46	-0.052	-0.034	1.8	83.9	
								B_MR04_GM_47	0.052	0.034	1.8	83.9	
B_MR04_GM_47	0.400	97.070	-5.1	0.000	0.000	0.050	0.031	B_MR04_GM47	-0.050	-0.031	87.7	85.0	
B_MR04_GM48	20.000	100.920	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM15	-0.038	-0.024	1.3	84.6	
								B_MR04_GM_48	0.038	0.024	1.3	84.6	
B_MR04_GM_48	0.400	99.306	-4.4	0.000	0.000	0.037	0.023	B_MR04_GM48	-0.037	-0.023	63.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM49	20.000	100.916	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM14	-0.025	-0.015	0.8	84.7	
								B_MR04_GM_49	0.025	0.015	0.8	84.7	
B_MR04_GM_49	0.400	99.865	-4.3	0.000	0.000	0.024	0.015	B_MR04_GM49	-0.024	-0.015	41.6	85.0	
B_MR6_GMP1	20.000	102.985	-3.8	0.000	0.000	0.000	0.000	GI MARISA	-3.886	-2.511	129.7	84.0	
								B_MR6_GMP4	3.886	2.511	129.7	84.0	
B_MR6_GMP2	20.000	91.374	-6.7	0.000	0.000	0.000	0.000	MR6 V UJUNG	2.991	1.757	109.6	86.2	
								B_MR6_GMP81	-2.991	-1.757	109.6	86.2	
B_MR6_GMP3	0.400	99.224	-4.7	0.000	0.000	0.016	0.010	B_MR6_GMP4	-0.016	-0.010	27.6	85.0	
B_MR6_GMP4	20.000	102.011	-4.0	0.000	0.000	0.000	0.000	B_MR6_GMP1	-3.859	-2.476	129.8	84.2	
								B_MR6_GMP7	3.843	2.465	129.2	84.2	
								B_MR6_GMP3	0.016	0.010	0.6	84.3	
B_MR6_GMP6	0.400	98.539	-4.9	0.000	0.000	0.029	0.018	B_MR6_GMP7	-0.029	-0.018	49.5	85.0	
B_MR6_GMP7	20.000	101.042	-4.2	0.000	0.000	0.000	0.000	B_MR6_GMP4	-3.816	-2.430	129.2	84.3	
								B_MR6_GMP11	3.787	2.412	128.3	84.3	
								B_MR6_GMP6	0.029	0.019	1.0	84.4	
B_MR6_GMP10	0.400	98.239	-4.9	0.000	0.000	0.021	0.013	B_MR6_GMP11	-0.021	-0.013	36.5	85.0	
B_MR6_GMP11	20.000	100.082	-4.5	0.000	0.000	0.000	0.000	B_MR6_GMP7	-3.760	-2.377	128.3	84.5	
								B_MR6_GMP13	3.739	2.363	127.6	84.5	
								B_MR6_GMP10	0.021	0.014	0.7	84.6	
B_MR6_GMP12	0.400	98.576	-4.8	0.000	0.000	0.013	0.008	B_MR6_GMP13	-0.013	-0.008	21.8	85.0	
B_MR6_GMP13	20.000	99.127	-4.7	0.000	0.000	0.000	0.000	B_MR6_GMP11	-3.712	-2.329	127.6	84.7	
								B_MR6_GMP15	3.699	2.321	127.2	84.7	
								B_MR6_GMP12	0.013	0.008	0.4	84.9	
B_MR6_GMP14	0.400	96.350	-5.4	0.000	0.000	0.041	0.025	B_MR6_GMP15	-0.041	-0.025	72.4	85.0	
B_MR6_GMP15	20.000	98.178	-4.9	0.000	0.000	0.000	0.000	B_MR6_GMP13	-3.673	-2.287	127.2	84.9	
								B_MR6_GMP16	3.632	2.260	125.8	84.9	
								B_MR6_GMP14	0.042	0.026	1.4	84.6	
B_MR6_GMP16	20.000	97.240	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP15	-3.606	-2.227	125.8	85.1	
								B_MR6_GMP19	0.220	0.133	7.6	85.5	
								B_MR6_GMP37	0.045	0.021	1.5	90.6	
								B_MR6_GMP66	3.342	2.072	116.7	85.0	
B_MR6_GMP19	20.000	97.210	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP16	-0.220	-0.134	7.6	85.3	
								B_MR6_GMP21	0.047	0.029	1.7	85.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR6_GMP25	0.172	0.105	6.0	85.4	
B_MR6_GMP20	0.400	95.096	-5.7	0.000	0.000	0.047	0.029	B_MR6_GMP21	-0.047	-0.029	83.4	85.0	
B_MR6_GMP21	20.000	97.203	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP19	-0.047	-0.030	1.7	84.5	
								B_MR6_GMP20	0.047	0.030	1.7	84.5	
B_MR6_GMP24	0.400	94.999	-5.7	0.000	0.000	0.024	0.015	B_MR6_GMP26	-0.024	-0.015	43.2	85.0	
B_MR6_GMP25	20.000	97.186	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP19	-0.172	-0.106	6.0	85.2	
								B_MR6_GMP26	0.025	0.015	0.9	85.8	
								B_MR6_GMP30	0.148	0.091	5.2	85.0	
B_MR6_GMP26	20.000	97.183	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP25	-0.025	-0.016	0.9	84.5	
								B_MR6_GMP24	0.025	0.016	0.9	84.5	
B_MR6_GMP30	20.000	97.166	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP25	-0.148	-0.092	5.2	84.8	
								B_MR6_GMP32	0.026	0.016	0.9	85.7	
								B_MR6_GMP36	0.121	0.076	4.3	84.6	
B_MR6_GMP31	0.400	94.825	-5.8	0.000	0.000	0.026	0.016	B_MR6_GMP32	-0.026	-0.016	46.2	85.0	
B_MR6_GMP32	20.000	97.162	-5.2	0.000	0.000	0.000	0.000	B_MR6_GMP30	-0.026	-0.017	0.9	84.4	
								B_MR6_GMP31	0.026	0.017	0.9	84.4	
B_MR6_GMP35	0.400	94.446	-5.9	0.000	0.000	0.119	0.074	B_MR6_GMP36	-0.119	-0.074	213.8	85.0	
B_MR6_GMP36	20.000	97.149	-5.2	0.000	0.000	0.000	0.000	B_MR6_GMP30	-0.121	-0.077	4.3	84.3	
								B_MR6_GMP35	0.121	0.077	4.3	84.3	
B_MR6_GMP37	20.000	97.234	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP16	-0.045	-0.022	1.5	89.9	
								B_MR6_GMP46	0.016	0.007	0.5	91.0	
								B_MR6_GMP55	0.029	0.014	1.0	89.3	
B_MR6_GMP42	0.400	96.709	-5.3	0.000	0.000	0.006	0.004	B_MR6_GMP45	-0.006	-0.004	10.3	85.0	
B_MR6_GMP43	0.400	96.335	-5.4	0.000	0.000	0.010	0.006	B_MR6_GMP44	-0.010	-0.006	17.7	85.0	
B_MR6_GMP44	20.000	97.230	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP46	-0.016	-0.009	0.5	86.9	
								B_MR6_GMP45	0.006	0.003	0.2	90.5	
								B_MR6_GMP43	0.010	0.006	0.4	84.8	
B_MR6_GMP45	20.000	97.229	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP44	-0.006	-0.004	0.2	84.9	
								B_MR6_GMP42	0.006	0.004	0.2	84.9	
B_MR6_GMP46	20.000	97.232	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP37	-0.016	-0.008	0.5	89.0	
								B_MR6_GMP44	0.016	0.008	0.5	89.0	
B_MR6_GMP51	0.400	95.501	-5.6	0.000	0.000	0.019	0.012	B_MR6_GMP54	-0.019	-0.012	34.2	85.0	
B_MR6_GMP52	0.400	96.928	-5.2	0.000	0.000	0.003	0.002	B_MR6_GMP53	-0.003	-0.002	5.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMP53	20.000	97.225	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP54	-0.009	-0.005	0.3	88.5	
								B_MR6_GMP59	0.006	0.003	0.2	90.5	
								B_MR6_GMP52	0.003	0.002	0.1	84.9	
B_MR6_GMP54	20.000	97.226	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP55	-0.029	-0.016	1.0	87.0	
								B_MR6_GMP53	0.009	0.004	0.3	91.9	
								B_MR6_GMP51	0.019	0.012	0.7	84.6	
B_MR6_GMP55	20.000	97.230	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP37	-0.029	-0.015	1.0	88.2	
								B_MR6_GMP54	0.029	0.015	1.0	88.2	
B_MR6_GMP58	0.400	96.704	-5.3	0.000	0.000	0.006	0.004	B_MR6_GMP59	-0.006	-0.004	10.3	85.0	
B_MR6_GMP59	20.000	97.224	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP53	-0.006	-0.004	0.2	84.9	
								B_MR6_GMP58	0.006	0.004	0.2	84.9	
B_MR6_GMP62	0.400	95.728	-5.5	0.000	0.000	0.014	0.009	B_MR6_GMP63	-0.014	-0.009	25.2	85.0	
B_MR6_GMP63	20.000	96.364	-5.4	0.000	0.000	0.000	0.000	B_MR6_GMP66	-0.043	-0.026	1.5	85.3	
								B_MR6_GMP65	0.029	0.017	1.0	85.5	
								B_MR6_GMP62	0.014	0.009	0.5	84.8	
B_MR6_GMP64	0.400	93.777	-6.1	0.000	0.000	0.028	0.017	B_MR6_GMP65	-0.028	-0.017	51.1	85.0	
B_MR6_GMP65	20.000	96.360	-5.4	0.000	0.000	0.000	0.000	B_MR6_GMP63	-0.029	-0.018	1.0	84.4	
								B_MR6_GMP64	0.029	0.018	1.0	84.4	
B_MR6_GMP66	20.000	96.370	-5.4	0.000	0.000	0.000	0.000	B_MR6_GMP16	-3.320	-2.044	116.8	85.2	
								B_MR6_GMP63	0.043	0.025	1.5	86.1	
								B_MR6_GMP70	3.276	2.018	115.3	85.1	
B_MR6_GMP69	0.400	93.186	-6.2	0.000	0.000	0.050	0.031	B_MR6_GMP70	-0.050	-0.031	92.0	85.0	
B_MR6_GMP70	20.000	95.512	-5.6	0.000	0.000	0.000	0.000	B_MR6_GMP66	-3.255	-1.991	115.3	85.3	
								B_MR6_GMP72	3.204	1.958	113.5	85.3	
								B_MR6_GMP69	0.051	0.033	1.8	84.4	
B_MR6_GMP71	0.400	93.910	-6.0	0.000	0.000	0.008	0.005	B_MR6_GMP73	-0.008	-0.005	15.0	85.0	
B_MR6_GMP72	20.000	94.668	-5.8	0.000	0.000	0.000	0.000	B_MR6_GMP70	-3.183	-1.931	113.5	85.5	
								B_MR6_GMP73	0.008	0.004	0.3	88.6	
								B_MR6_GMP77	3.174	1.927	113.2	85.5	
B_MR6_GMP73	20.000	94.667	-5.8	0.000	0.000	0.000	0.000	B_MR6_GMP72	-0.008	-0.005	0.3	84.8	
								B_MR6_GMP71	0.008	0.005	0.3	84.8	
B_MR6_GMP76	0.400	91.671	-6.6	0.000	0.000	0.046	0.029	B_MR6_GMP77	-0.046	-0.029	85.4	85.0	
B_MR6_GMP77	20.000	93.828	-6.0	0.000	0.000	0.000	0.000	B_MR6_GMP72	-3.154	-1.900	113.3	85.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR6_GMP79	3.107	1.870	111.6	85.7	
								B_MR6_GMP76	0.047	0.030	1.7	84.4	
B_MR6_GMP78	0.400	90.355	-7.0	0.000	0.000	0.028	0.017	B_MR6_GMP79	-0.028	-0.017	52.3	85.0	
B_MR6_GMP79	20.000	93.001	-6.3	0.000	0.000	0.000	0.000	B_MR6_GMP77	-3.087	-1.844	111.6	85.8	
								B_MR6_GMP81	3.058	1.826	110.6	85.9	
								B_MR6_GMP78	0.028	0.018	1.0	84.3	
B_MR6_GMP80	0.400	89.521	-7.2	0.000	0.000	0.028	0.017	B_MR6_GMP81	-0.028	-0.017	52.6	85.0	
B_MR6_GMP81	20.000	92.183	-6.5	0.000	0.000	0.000	0.000	B_MR6_GMP79	-3.038	-1.801	110.6	86.0	
								B_MR6_GMP2	3.010	1.782	109.6	86.0	
								B_MR6_GMP80	0.028	0.018	1.1	84.3	
B_MR6_GMP82	20.000	89.998	-6.9	0.000	0.000	0.000	0.000	MR6 V UJUNG	-2.951	-1.725	109.6	86.3	
								B_MR6_GMT2	2.951	1.725	109.6	86.3	
B_MR6_GMT1	0.400	87.609	-7.5	0.000	0.000	0.045	0.028	B_MR6_GMT3	-0.045	-0.028	88.0	85.0	
B_MR6_GMT2	20.000	89.840	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMP82	-2.946	-1.721	109.6	86.3	
								B_MR6_GMT3	0.046	0.029	1.7	85.0	
								B_MR6_GMT7	2.900	1.693	107.9	86.4	
B_MR6_GMT3	20.000	89.833	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT2	-0.046	-0.029	1.8	84.4	
								B_MR6_GMT1	0.046	0.029	1.8	84.4	
B_MR6_GMT7	20.000	89.683	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT2	-2.896	-1.689	107.9	86.4	
								B_MR6_GMT9	0.002	0.000	0.1	98.8	
								B_MR6_GMT13	2.894	1.689	107.9	86.4	
B_MR6_GMT8	0.400	89.370	-7.0	0.000	0.000	0.002	0.001	B_MR6_GMT9	-0.002	-0.001	3.1	85.0	
B_MR6_GMT9	20.000	89.683	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT7	-0.002	-0.001	0.1	84.9	
								B_MR6_GMT8	0.002	0.001	0.1	84.9	
B_MR6_GMT13	20.000	89.527	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT7	-2.890	-1.685	107.9	86.4	
								B_MR6_GMT19	2.873	1.675	107.2	86.4	
								B_MR6_GMT14	0.016	0.010	0.6	84.6	
B_MR6_GMT14	0.400	87.944	-7.4	0.000	0.000	0.016	0.010	B_MR6_GMT13	-0.016	-0.010	31.3	85.0	
B_MR6_GMT18	0.400	87.787	-7.4	0.000	0.000	0.016	0.010	B_MR6_GMT19	-0.016	-0.010	31.4	85.0	
B_MR6_GMT19	20.000	89.372	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT13	-2.869	-1.671	107.2	86.4	
								B_MR6_GMT21	2.852	1.661	106.6	86.4	
								B_MR6_GMT18	0.016	0.010	0.6	84.6	
B_MR6_GMT20	0.400	89.100	-7.0	0.000	0.000	0.002	0.002	B_MR6_GMT21	-0.002	-0.002	4.7	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT21	20.000	89.218	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT19	-2.848	-1.657	106.6	86.4	
								B_MR6_GMT25	2.845	1.656	106.5	86.4	
								B_MR6_GMT20	0.002	0.002	0.1	85.0	
B_MR6_GMT25	20.000	89.064	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT21	-2.841	-1.652	106.5	86.4	
								B_MR6_GMT27	0.004	0.002	0.1	91.7	
								B_MR6_GMT30	2.837	1.651	106.4	86.4	
B_MR6_GMT26	0.400	88.867	-7.1	0.000	0.000	0.004	0.003	B_MR6_GMT27	-0.004	-0.003	7.8	85.0	
B_MR6_GMT27	20.000	89.063	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT25	-0.004	-0.003	0.2	84.9	
								B_MR6_GMT26	0.004	0.003	0.2	84.9	
B_MR6_GMT30	20.000	88.910	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT25	-2.833	-1.647	106.4	86.4	
								B_MR6_GMT35	2.829	1.644	106.2	86.5	
								B_MR6_GMT31	0.004	0.003	0.2	84.8	
B_MR6_GMT31	0.400	88.120	-7.3	0.000	0.000	0.004	0.003	B_MR6_GMT30	-0.004	-0.003	7.8	85.0	
B_MR6_GMT35	20.000	88.756	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT30	-2.824	-1.641	106.2	86.5	
								B_MR6_GMT37	0.022	0.013	0.8	85.7	
								B_MR6_GMT38	0.080	0.045	3.0	87.2	
								B_MR6_GMT63	2.722	1.583	102.4	86.5	
B_MR6_GMT36	0.400	86.591	-7.7	0.000	0.000	0.022	0.014	B_MR6_GMT37	-0.022	-0.014	42.8	85.0	
B_MR6_GMT37	20.000	88.753	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT35	-0.022	-0.014	0.9	84.4	
								B_MR6_GMT36	0.022	0.014	0.9	84.4	
B_MR6_GMT38	20.000	88.744	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT35	-0.080	-0.046	3.0	86.8	
								B_MR6_GMT47	0.026	0.016	1.0	86.2	
								B_MR6_GMT55	0.053	0.030	2.0	87.1	
B_MR6_GMT44	0.400	87.789	-7.3	0.000	0.000	0.005	0.003	B_MR6_GMT48	-0.005	-0.003	9.4	85.0	
B_MR6_GMT45	0.400	84.496	-8.3	0.000	0.000	0.021	0.013	B_MR6_GMT47	-0.021	-0.013	41.9	85.0	
B_MR6_GMT47	20.000	88.740	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT38	-0.026	-0.016	1.0	85.1	
								B_MR6_GMT48	0.005	0.002	0.2	90.4	
								B_MR6_GMT45	0.022	0.014	0.8	83.8	
B_MR6_GMT48	20.000	88.740	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT47	-0.005	-0.003	0.2	84.7	
								B_MR6_GMT44	0.005	0.003	0.2	84.7	
B_MR6_GMT52	20.000	88.729	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT55	-0.053	-0.032	2.0	86.1	
								B_MR6_GMT54	0.027	0.017	1.0	85.3	
								B_MR6_GMT59	0.026	0.015	1.0	86.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT53	0.400	86.070	-7.8	0.000	0.000	0.027	0.016	B_MR6_GMT54	-0.027	-0.016	52.5	85.0	
B_MR6_GMT54	20.000	88.724	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT52	-0.027	-0.017	1.0	84.3	
								B_MR6_GMT53	0.027	0.017	1.0	84.3	
B_MR6_GMT55	20.000	88.736	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT38	-0.053	-0.031	2.0	86.6	
								B_MR6_GMT52	0.053	0.031	2.0	86.6	
B_MR6_GMT58	0.400	87.212	-7.5	0.000	0.000	0.015	0.010	B_MR6_GMT59	-0.015	-0.010	29.9	85.0	
B_MR6_GMT59	20.000	88.725	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT52	-0.026	-0.016	1.0	85.8	
								B_MR6_GMT61	0.011	0.006	0.4	87.5	
								B_MR6_GMT58	0.016	0.010	0.6	84.6	
B_MR6_GMT60	0.400	88.210	-7.2	0.000	0.000	0.011	0.007	B_MR6_GMT61	-0.011	-0.007	20.3	85.0	
B_MR6_GMT61	20.000	88.723	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT59	-0.011	-0.007	0.4	84.9	
								B_MR6_GMT60	0.011	0.007	0.4	84.9	
B_MR6_GMT62	0.400	87.975	-7.2	0.000	0.000	0.003	0.002	B_MR6_GMT63	-0.003	-0.002	6.3	85.0	
B_MR6_GMT63	20.000	88.608	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT35	-2.718	-1.579	102.4	86.5	
								B_MR6_GMT65	2.715	1.577	102.3	86.5	
								B_MR6_GMT62	0.003	0.002	0.1	84.8	
B_MR6_GMT64	0.400	87.587	-7.3	0.000	0.000	0.009	0.006	B_MR6_GMT65	-0.009	-0.006	17.3	85.0	
B_MR6_GMT65	20.000	88.460	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT63	-2.711	-1.574	102.3	86.5	
								B_MR6_GMT73	2.702	1.569	102.0	86.5	
								B_MR6_GMT64	0.009	0.006	0.3	84.8	
B_MR6_GMT70	0.400	86.632	-7.6	0.000	0.000	0.017	0.011	B_MR6_GMT73	-0.017	-0.011	33.2	85.0	
B_MR6_GMT71	0.400	85.416	-7.9	0.000	0.000	0.014	0.008	B_MR6_GMT72	-0.014	-0.008	27.2	85.0	
B_MR6_GMT72	20.000	88.166	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT73	-2.677	-1.551	101.3	86.5	
								B_MR6_GMT77	2.663	1.542	100.8	86.5	
								B_MR6_GMT71	0.014	0.009	0.5	84.2	
B_MR6_GMT73	20.000	88.312	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT65	-2.698	-1.565	102.0	86.5	
								B_MR6_GMT72	2.681	1.555	101.3	86.5	
								B_MR6_GMT70	0.017	0.011	0.7	84.5	
B_MR6_GMT74	0.400	85.433	-7.9	0.000	0.000	0.026	0.016	B_MR6_GMT77	-0.026	-0.016	51.1	85.0	
B_MR6_GMT75	0.400	85.119	-8.0	0.000	0.000	0.027	0.017	B_MR6_GMT76	-0.027	-0.017	54.5	85.0	
B_MR6_GMT76	20.000	87.875	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT77	-2.629	-1.519	99.7	86.6	
								B_MR6_GMT81	2.601	1.502	98.7	86.6	
								B_MR6_GMT75	0.028	0.018	1.1	84.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT77	20.000	88.020	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT72	-2.659	-1.539	100.8	86.5	
								B_MR6_GMT76	2.633	1.523	99.7	86.6	
								B_MR6_GMT74	0.026	0.017	1.0	84.3	
B_MR6_GMT80	0.400	85.347	-7.9	0.000	0.000	0.047	0.029	B_MR6_GMT81	-0.047	-0.029	94.4	85.0	
B_MR6_GMT81	20.000	87.733	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT76	-2.597	-1.499	98.7	86.6	
								B_MR6_GMT83	2.549	1.468	96.8	86.7	
								B_MR6_GMT80	0.048	0.031	1.9	84.3	
B_MR6_GMT82	0.400	87.278	-7.3	0.000	0.000	0.002	0.002	B_MR6_GMT84	-0.002	-0.002	4.7	85.0	
B_MR6_GMT83	20.000	87.516	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT81	-2.543	-1.464	96.8	86.7	
								B_MR6_GMT84	0.002	0.001	0.1	95.2	
								B_MR6_GMT88	2.541	1.463	96.7	86.7	
B_MR6_GMT84	20.000	87.516	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT83	-0.002	-0.002	0.1	84.9	
								B_MR6_GMT82	0.002	0.002	0.1	84.9	
B_MR6_GMT87	0.400	85.196	-7.8	0.000	0.000	0.042	0.026	B_MR6_GMT88	-0.042	-0.026	83.3	85.0	
B_MR6_GMT88	20.000	87.300	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT83	-2.535	-1.459	96.7	86.7	
								B_MR6_GMT92	2.492	1.432	95.0	86.7	
								B_MR6_GMT87	0.043	0.027	1.7	84.4	
B_MR6_GMT91	0.400	86.206	-7.5	0.000	0.000	0.018	0.011	B_MR6_GMT92	-0.018	-0.011	34.9	85.0	
B_MR6_GMT92	20.000	87.088	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT88	-2.486	-1.429	95.1	86.7	
								B_MR6_GMT97	2.469	1.417	94.4	86.7	
								B_MR6_GMT91	0.018	0.011	0.7	84.8	
B_MR6_GMT96	0.400	86.150	-7.5	0.000	0.000	0.007	0.004	B_MR6_GMT99	-0.007	-0.004	14.3	85.0	
B_MR6_GMT97	20.000	86.877	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT92	-2.463	-1.414	94.4	86.7	
								B_MR6_GMT98	0.025	0.014	1.0	87.8	
								B_MR6_GMT111	2.438	1.400	93.4	86.7	
B_MR6_GMT98	20.000	86.873	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT97	-0.025	-0.014	1.0	86.7	
								B_MR6_GMT99	0.007	0.004	0.3	88.5	
								B_MR6_GMT103	0.018	0.011	0.7	86.0	
B_MR6_GMT99	20.000	86.872	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT98	-0.007	-0.005	0.3	84.8	
								B_MR6_GMT96	0.007	0.005	0.3	84.8	
B_MR6_GMT102	0.400	85.089	-7.8	0.000	0.000	0.018	0.011	B_MR6_GMT103	-0.018	-0.011	35.3	85.0	
B_MR6_GMT103	20.000	86.870	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT98	-0.018	-0.011	0.7	84.5	
								B_MR6_GMT102	0.018	0.011	0.7	84.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT109	0.400	86.221	-7.3	0.000	0.000	0.002	0.001	B_MR6_GMT113	-0.002	-0.001	4.8	85.0	
B_MR6_GMT110	0.400	83.884	-8.1	0.000	0.000	0.027	0.017	B_MR6_GMT111	-0.027	-0.017	55.0	85.0	
B_MR6_GMT111	20.000	86.668	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT97	-2.432	-1.396	93.4	86.7	
								B_MR6_GMT112	2.404	1.378	92.3	86.8	
								B_MR6_GMT110	0.028	0.018	1.1	84.2	
B_MR6_GMT112	20.000	86.462	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT111	-2.399	-1.375	92.3	86.8	
								B_MR6_GMT113	0.002	0.001	0.1	95.0	
								B_MR6_GMT117	2.397	1.374	92.2	86.8	
B_MR6_GMT113	20.000	86.461	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT112	-0.002	-0.002	0.1	84.9	
								B_MR6_GMT109	0.002	0.002	0.1	84.9	
B_MR6_GMT116	0.400	83.714	-8.0	0.000	0.000	0.025	0.015	B_MR6_GMT117	-0.025	-0.015	50.3	85.0	
B_MR6_GMT117	20.000	86.256	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT112	-2.391	-1.371	92.2	86.8	
								B_MR6_GMT128	2.366	1.355	91.2	86.8	
								B_MR6_GMT116	0.025	0.016	1.0	84.3	
B_MR6_GMT123	0.400	85.940	-7.3	0.000	0.000	0.001	0.000	B_MR6_GMT124	-0.001	0.000	1.6	85.0	
B_MR6_GMT124	20.000	86.100	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT125	-0.001	-0.001	0.0	85.0	
								B_MR6_GMT123	0.001	0.001	0.0	85.0	
B_MR6_GMT125	20.000	86.100	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT128	-0.016	-0.009	0.6	87.4	
								B_MR6_GMT124	0.001	0.000	0.0	-96.9	
								B_MR6_GMT127	0.016	0.009	0.6	85.8	
B_MR6_GMT126	0.400	82.960	-8.2	0.000	0.000	0.015	0.009	B_MR6_GMT127	-0.015	-0.009	31.0	85.0	
B_MR6_GMT127	20.000	86.098	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT125	-0.016	-0.010	0.6	84.1	
								B_MR6_GMT126	0.016	0.010	0.6	84.1	
B_MR6_GMT128	20.000	86.103	-7.3	0.000	0.000	0.000	0.000	B_MR6_GMT117	-2.362	-1.352	91.2	86.8	
								B_MR6_GMT125	0.016	0.008	0.6	89.0	
								MR6 V UJUNG2	2.346	1.344	90.6	86.8	
B_MR6_GMT130	20.000	84.463	-7.4	0.000	0.000	0.000	0.000	GH TILAMUTA	-1.564	-0.944	62.4	85.6	
								B_LMT1_GMT3	0.335	0.198	13.3	86.1	
								B_LMT1_GMT80	1.229	0.746	49.1	85.5	
GH LEMITO	20.000	83.084	-6.5	0.000	0.000	0.000	0.000	Bus_LM1_249	-1.404	-0.839	56.8	85.8	
								Bus_LM1_251	1.404	0.839	56.8	85.8	
GH MARISA	20.000	91.866	-4.0	0.000	0.000	0.000	0.000	B_LM3	3.959	2.526	147.6	84.3	
								B_AG2_GK7	-5.172	-3.200	191.1	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								GH MARISA1	1.214	0.674	43.6	87.4	
GH MARISA1	20.000	91.866	-4.0	0.000	0.000	0.000	0.000	Bus_LM1_1	0.790	0.439	28.4	87.4	
								Bus_LM1_169	0.424	0.234	15.2	87.5	
								GH MARISA	-1.214	-0.674	43.6	87.4	
GH TILAMUTA	20.000	84.512	-7.4	0.000	0.000	0.000	0.000	MR6 V UJUNG2	-2.305	-1.331	90.9	86.6	
								B_MR6_GMT130	1.565	0.931	62.2	85.9	
								B_LMT2_1	0.740	0.400	28.7	88.0	
GI MARISA	20.000	103.087	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP94	1.845	1.109	60.3	85.7	
								B_AG2_GK7	5.788	3.598	190.9	84.9	
								B_MR04_GM	3.809	2.382	125.8	84.8	
								B_MR6_GMP1	3.890	2.494	129.4	84.2	
								B_GI_MARISA	-15.332	-9.583	506.3	84.8	8.000
LM1 V UJUNG	20.000	90.941	-4.2	0.000	0.000	0.000	0.000	Bus_LM1_46	0.000	0.000	0.0	0.0	
LM3 V UJUNG	20.000	86.074	-5.6	0.000	0.000	0.000	0.000	Bus_LM3_113	-2.054	-1.258	80.8	85.3	
								LO1 V UJUNG	2.054	1.258	80.8	85.3	
LM4 V UJUNG	20.000	91.646	-4.1	0.000	0.000	0.000	0.000	Bus_LM1_167	0.000	0.000	0.0	0.0	
LMT1 V UJUNG	20.000	83.196	-7.5	0.000	0.000	0.000	0.000	B_LMT1_GMT195	0.000	0.000	0.0	0.0	
LMT2 V UJUNG	20.000	82.173	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT262	0.000	0.000	0.0	0.0	
LO1 V UJUNG	20.000	86.074	-5.6	0.000	0.000	0.000	0.000	Bus_LM1_215	2.054	1.258	80.8	85.3	
								LM3 V UJUNG	-2.054	-1.258	80.8	85.3	
LO2 V UJUNG	20.000	81.185	-6.7	0.000	0.000	0.000	0.000	Bus_LM1_383	0.000	0.000	0.0	0.0	
MR1 V UJUNG	20.000	99.190	-4.0	0.000	0.000	0.000	0.000	Bus_MR1_GMP82	0.000	0.000	0.0	0.0	
MR6 V UJUNG	20.000	90.316	-6.8	0.000	0.000	0.000	0.000	B_MR6_GMP2	-2.960	-1.732	109.6	86.3	
								B_MR6_GMP82	2.960	1.732	109.6	86.3	
MR6 V UJUNG2	20.000	84.583	-7.4	0.000	0.000	0.000	0.000	GH TILAMUTA	2.307	1.318	90.7	86.8	
								B_MR6_GMT128	-2.307	-1.318	90.7	86.8	
LM.2~	20.000	100.928	-4.0	0.000	0.000	0.000	0.000	B_MR3	0.000	0.000	0.0	0.0	

* Indicates a voltage regulated bus (voltage controlled or swing type machine connected to it)

# Indicates a bus with a load mismatch of more than 0.1 MVA

Bus Loading Summary Report

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_PLTD_TILAMUTA	6.300													
Bus_LM1_1	20.000										0.912	86.7	28.7	
Bus_LM1_2	0.400		0.028	0.017	0.006	0.004					0.039	85.0	63.2	
Bus_LM1_3	20.000										0.911	86.6	28.7	
Bus_LM1_6	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.3	
Bus_LM1_7	20.000										0.870	86.7	27.4	
Bus_LM1_8	0.400		0.033	0.020	0.007	0.004					0.046	85.0	74.3	
Bus_LM1_9	20.000										0.477	86.6	15.0	
Bus_LM1_10	0.400		0.002	0.001	0.000	-					0.003	85.0	4.6	
Bus_LM1_11	20.000										0.430	86.7	13.6	
Bus_LM1_12	0.400		0.034	0.021	0.006	0.004					0.048	85.0	78.7	
Bus_LM1_13	20.000										0.427	86.6	13.5	
Bus_LM1_14	0.400		0.022	0.014	0.005	0.003					0.032	85.0	50.9	
Bus_LM1_15	20.000										0.378	86.8	11.9	
Bus_LM1_16	0.400		0.018	0.011	0.004	0.002					0.025	85.0	40.3	
Bus_LM1_17	20.000										0.346	86.9	10.9	
Bus_LM1_18	0.400		0.017	0.011	0.003	0.002					0.024	85.0	38.8	
Bus_LM1_19	20.000										0.321	86.9	10.2	
Bus_LM1_20	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.2	
Bus_LM1_21	20.000										0.297	87.0	9.4	
Bus_LM1_25	20.000										0.263	87.2	8.3	
Bus_LM1_26	0.400		0.013	0.008	0.003	0.002					0.018	85.0	29.4	
Bus_LM1_31	20.000										0.245	87.0	7.8	
Bus_LM1_32	0.400		0.016	0.010	0.003	0.002					0.022	85.0	35.7	
Bus_LM1_33	20.000										0.058	87.5	1.8	
Bus_LM1_34	0.400		0.012	0.008	0.002	0.002					0.017	85.0	27.9	
Bus_LM1_35	20.000										0.180	87.1	5.7	
Bus_LM1_36	0.400		0.008	0.005	0.002	0.001					0.012	85.0	18.5	
Bus_LM1_37	20.000										0.223	87.0	7.1	
Bus_LM1_38	0.400		0.019	0.012	0.004	0.002					0.027	85.0	43.6	
Bus_LM1_39	20.000										0.197	87.1	6.2	
Bus_LM1_40	0.400		0.012	0.007	0.002	0.001					0.016	85.0	26.3	
Bus_LM1_41	20.000										0.245	87.2	7.8	
Bus_LM1_42	20.000										0.041	87.5	1.3	
Bus_LM1_43	0.400		0.010	0.006	0.002	0.001					0.014	85.0	23.4	
Bus_LM1_44	20.000										0.026	87.3	0.8	
Bus_LM1_45	0.400		0.016	0.010	0.003	0.002					0.023	85.0	36.9	
Bus_LM1_46	20.000										0.004	84.9	0.1	
Bus_LM1_47	0.400		0.003	0.002	0.001	-					0.004	85.0	6.1	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM1_58	0.400		0.006	0.004	0.001	0.001					0.009	85.0	13.9	
Bus_LM1_59	20.000										0.112	86.2	3.6	
Bus_LM1_60	0.400		0.016	0.010	0.003	0.002					0.022	85.0	36.2	
Bus_LM1_61	0.400		0.018	0.011	0.003	0.002					0.025	85.0	40.5	
Bus_LM1_62	0.400		0.020	0.013	0.004	0.002					0.029	85.0	46.8	
Bus_LM1_63	20.000										0.029	84.4	0.9	
Bus_LM1_64	20.000										0.054	85.4	1.7	
Bus_LM1_65	20.000										0.077	85.6	2.4	
Bus_LM1_66	20.000										0.104	85.9	3.3	
Bus_LM1_67	0.400		0.020	0.012	0.004	0.002					0.028	85.0	44.8	
Bus_LM1_70	20.000										0.369	86.6	11.6	
Bus_LM1_71	0.400		0.022	0.014	0.005	0.003					0.032	85.0	50.8	
Bus_LM1_74	20.000										0.337	86.7	10.6	
Bus_LM1_75	0.400		0.014	0.009	0.003	0.002					0.020	85.0	32.4	
Bus_LM1_76	20.000										0.317	86.6	10.0	
Bus_LM1_77	0.400		0.012	0.007	0.002	0.001					0.016	85.0	26.1	
Bus_LM1_78	20.000										0.301	86.6	9.5	
Bus_LM1_79	0.400		0.009	0.005	0.002	0.001					0.013	85.0	20.0	
Bus_LM1_80	20.000										0.289	86.5	9.1	
Bus_LM1_81	0.400		0.038	0.024	0.008	0.005					0.054	85.0	87.0	
Bus_LM1_82	20.000										0.234	86.8	7.4	
Bus_LM1_83	0.400		0.003	0.002	0.001	-					0.005	85.0	7.7	
Bus_LM1_84	20.000										0.230	86.6	7.3	
Bus_LM1_85	0.400		0.003	0.002	0.001	-					0.005	85.0	7.7	
Bus_LM1_86	20.000										0.226	86.4	7.1	
Bus_LM1_87	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.0	
Bus_LM1_91	20.000										0.193	86.5	6.1	
Bus_LM1_92	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.0	
Bus_LM1_93	20.000										0.160	86.6	5.1	
Bus_LM1_94	0.400		0.006	0.004	0.001	0.001					0.009	85.0	13.8	
Bus_LM1_95	20.000										0.128	86.4	4.0	
Bus_LM1_96	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.1	
Bus_LM1_97	20.000										0.152	86.4	4.8	
Bus_LM1_98	0.400		0.017	0.011	0.003	0.002					0.024	85.0	38.8	
Bus_LM1_99	20.000										0.095	86.5	3.0	
Bus_LM1_100	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.1	
Bus_LM1_101	20.000										0.062	86.9	2.0	
Bus_LM1_102	0.400		0.010	0.006	0.002	0.001					0.013	85.0	21.6	
Bus_LM1_111	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.1	
Bus_LM1_112	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.8	
Bus_LM1_113	20.000										0.007	84.9	0.2	
Bus_LM1_114	20.000										0.040	85.7	1.3	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_115	20.000										0.049	86.5	1.5	
Bus_LM1_116	0.400		0.007	0.004	0.001	0.001					0.010	85.0	15.5	
Bus_LM1_123	0.400		0.038	0.024	0.008	0.005					0.054	85.0	86.7	
Bus_LM1_124	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.7	
Bus_LM1_125	20.000										0.200	85.6	6.3	
Bus_LM1_126	20.000										0.194	85.4	6.1	
Bus_LM1_127	20.000										0.140	85.4	4.4	
Bus_LM1_128	0.400		0.034	0.021	0.007	0.004					0.048	85.0	78.5	
Bus_LM1_135	0.400		0.002	0.001	0.000	-					0.003	85.0	4.6	
Bus_LM1_136	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.8	
Bus_LM1_137	20.000										0.090	85.5	2.8	
Bus_LM1_138	20.000										0.057	85.4	1.8	
Bus_LM1_139	20.000										0.055	84.4	1.7	
Bus_LM1_140	0.400		0.038	0.024	0.008	0.005					0.054	85.0	86.7	
Bus_LM1_147	0.400		0.009	0.005	0.002	0.001					0.013	85.0	19.9	
Bus_LM1_148	0.400		0.010	0.006	0.002	0.001					0.014	85.0	21.4	
Bus_LM1_149	20.000										0.051	86.5	1.6	
Bus_LM1_150	20.000										0.251	86.2	7.9	
Bus_LM1_151	20.000										0.492	86.0	15.5	
Bus_LM1_152	0.400		0.029	0.018	0.006	0.003					0.040	85.0	65.5	
Bus_LM1_153	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.8	
Bus_LM1_154	0.400		0.010	0.006	0.002	0.001					0.015	85.0	22.9	
Bus_LM1_155	20.000										0.189	85.7	6.0	
Bus_LM1_156	20.000										0.034	84.3	1.1	
Bus_LM1_157	20.000										0.038	85.7	1.2	
Bus_LM1_158	0.400		0.003	0.002	0.001	-					0.005	85.0	7.6	
Bus_LM1_159	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.8	
Bus_LM1_160	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.9	
Bus_LM1_161	20.000										0.088	85.4	2.8	
Bus_LM1_162	20.000										0.121	85.5	3.8	
Bus_LM1_163	20.000										0.175	85.5	5.5	
Bus_LM1_164	0.400		0.038	0.024	0.008	0.005					0.054	85.0	86.7	
Bus_LM1_167	20.000										0.055	84.4	1.7	
Bus_LM1_168	0.400		0.038	0.024	0.008	0.005					0.054	85.0	86.7	
Bus_LM1_169	20.000										0.492	86.1	15.5	
Bus_LM1_189	20.000										0.190	86.1	6.4	
Bus_LM1_190	20.000										0.049	84.6	1.6	
Bus_LM1_191	20.000										0.142	86.1	4.8	
Bus_LM1_193	20.000										0.307	86.1	10.3	
Bus_LM1_195	20.000										0.283	86.1	9.5	
Bus_LM1_196	20.000										0.259	86.1	8.7	
Bus_LM1_197	20.000										0.236	86.1	7.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_198	20.000										0.024	84.7	0.8	
Bus_LM1_200	20.000										0.189	85.9	6.4	
Bus_LM1_202	20.000										0.165	85.9	5.6	
Bus_LM1_203	20.000										0.142	85.8	4.8	
Bus_LM1_204	20.000										0.024	84.4	0.8	
Bus_LM1_209	20.000										0.024	84.7	0.8	
Bus_LM1_210	20.000										0.047	85.4	1.6	
Bus_LM1_211	20.000										0.071	85.5	2.4	
Bus_LM1_212	20.000										0.095	85.6	3.2	
Bus_LM1_215	20.000										2.404	85.3	80.8	
Bus_LM1_217	20.000										2.382	85.3	80.2	
Bus_LM1_218	20.000										2.324	85.4	78.4	
Bus_LM1_219	20.000										2.288	85.4	77.3	
Bus_LM1_220	20.000										2.252	85.5	76.2	
Bus_LM1_221	20.000										2.215	85.5	75.1	
Bus_LM1_222	20.000										2.179	85.6	73.9	
Bus_LM1_224	20.000										2.143	85.6	72.8	
Bus_LM1_226	20.000										2.116	85.6	72.0	
Bus_LM1_227	20.000										2.089	85.7	71.2	
Bus_LM1_228	20.000										2.063	85.7	70.4	
Bus_LM1_229	20.000										2.036	85.8	69.6	
Bus_LM1_230	20.000										0.047	85.7	1.6	
Bus_LM1_231	20.000										0.024	84.7	0.8	
Bus_LM1_232	20.000										1.963	85.8	67.2	
Bus_LM1_233	20.000										1.936	85.8	66.4	
Bus_LM1_236	20.000										1.883	85.9	64.8	
Bus_LM1_237	20.000										1.909	85.9	65.6	
Bus_LM1_238	20.000										1.830	86.0	63.1	
Bus_LM1_239	20.000										1.857	85.9	64.0	
Bus_LM1_240	20.000										1.778	86.1	61.5	
Bus_LM1_241	20.000										1.804	86.0	62.3	
Bus_LM1_242	20.000										0.047	85.7	1.6	
Bus_LM1_243	20.000										1.752	86.1	60.7	
Bus_LM1_244	20.000										1.680	86.1	58.3	
Bus_LM1_245	20.000										0.024	84.8	0.8	
Bus_LM1_249	20.000										1.654	86.2	57.4	
Bus_LM1_251	20.000										1.642	85.5	57.1	
Bus_LM1_253	20.000										1.616	85.5	56.3	
Bus_LM1_254	20.000										1.590	85.5	55.4	
Bus_LM1_255	20.000										1.565	85.5	54.6	
Bus_LM1_258	20.000										1.514	85.6	53.0	
Bus_LM1_259	20.000										1.539	85.6	53.8	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_264	20.000										1.412	85.7	49.6	
Bus_LM1_265	20.000										1.437	85.6	50.5	
Bus_LM1_266	20.000										1.463	85.6	51.3	
Bus_LM1_267	20.000										1.488	85.6	52.1	
Bus_LM1_270	20.000										0.047	85.4	1.6	
Bus_LM1_271	20.000										0.024	84.7	0.8	
Bus_LM1_274	20.000										0.164	85.9	5.8	
Bus_LM1_275	20.000										1.340	85.7	47.2	
Bus_LM1_277	20.000										0.140	85.8	4.9	
Bus_LM1_278	20.000										1.315	85.7	46.3	
Bus_LM1_281	20.000										0.094	85.7	3.3	
Bus_LM1_282	20.000										0.117	85.8	4.1	
Bus_LM1_283	20.000										0.047	85.3	1.7	
Bus_LM1_284	20.000										0.070	85.5	2.5	
Bus_LM1_285	20.000										0.047	85.3	1.7	
Bus_LM1_286	20.000										0.024	84.4	0.8	
Bus_LM1_288	20.000										0.024	84.4	0.8	
Bus_LM1_292	20.000										0.024	84.7	0.8	
Bus_LM1_293	20.000										0.047	85.1	1.7	
Bus_LM1_294	20.000										0.071	85.2	2.5	
Bus_LM1_298	20.000										0.985	85.6	34.8	
Bus_LM1_299	20.000										1.010	85.6	35.6	
Bus_LM1_300	20.000										1.034	85.6	36.5	
Bus_LM1_304	20.000										0.024	84.4	0.8	
Bus_LM1_305	20.000										0.047	85.2	1.7	
Bus_LM1_306	20.000										0.070	85.6	2.5	
Bus_LM1_307	20.000										0.961	85.6	34.0	
Bus_LM1_309	20.000										0.890	85.6	31.5	
Bus_LM1_312	20.000										0.024	84.4	0.8	
Bus_LM1_313	20.000										0.047	85.2	1.7	
Bus_LM1_318	20.000										0.024	84.7	0.8	
Bus_LM1_319	20.000										0.047	85.6	1.7	
Bus_LM1_320	20.000										0.071	85.2	2.5	
Bus_LM1_321	20.000										0.096	85.0	3.4	
Bus_LM1_322	20.000										0.820	85.6	29.0	
Bus_LM1_327	20.000										0.652	85.7	23.1	
Bus_LM1_328	20.000										0.676	85.6	24.0	
Bus_LM1_329	20.000										0.700	85.6	24.8	
Bus_LM1_330	20.000										0.724	85.6	25.7	
Bus_LM1_335	20.000										0.093	85.8	3.3	
Bus_LM1_336	20.000										0.116	85.9	4.1	
Bus_LM1_337	20.000										0.141	85.6	5.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM1_338	20.000										0.164	85.7	5.8	
Bus_LM1_343	20.000										0.070	85.7	2.5	
Bus_LM1_344	20.000										0.047	85.6	1.7	
Bus_LM1_345	20.000										0.141	85.5	5.0	
Bus_LM1_346	20.000										0.024	84.7	0.8	
Bus_LM1_353	20.000										0.347	85.5	12.3	
Bus_LM1_354	20.000										0.024	84.4	0.8	
Bus_LM1_355	20.000										0.047	85.2	1.7	
Bus_LM1_356	20.000										0.070	85.5	2.5	
Bus_LM1_357	20.000										0.094	85.7	3.3	
Bus_LM1_358	20.000										0.117	85.6	4.2	
Bus_LM1_359	20.000										0.347	85.5	12.3	
Bus_LM1_361	20.000										0.324	85.5	11.5	
Bus_LM1_362	20.000										0.300	85.5	10.7	
Bus_LM1_366	20.000										0.024	84.7	0.8	
Bus_LM1_367	20.000										0.047	85.4	1.7	
Bus_LM1_368	20.000										0.019	84.0	0.7	
Bus_LM1_369	20.000										0.277	85.5	9.8	
Bus_LM1_375	20.000										0.164	85.4	5.8	
Bus_LM1_376	20.000										0.188	85.4	6.7	
Bus_LM1_377	20.000										0.212	85.2	7.5	
Bus_LM1_380	20.000										0.117	85.5	4.2	
Bus_LM1_383	20.000										0.024	84.4	0.8	
Bus_LM1_384	20.000										0.047	85.1	1.7	
Bus_LM1_385	20.000										0.024	84.4	0.8	
Bus_LM1_386	20.000										0.047	85.2	1.7	
Bus_LM3_3	20.000										4.637	84.3	146.8	
Bus_LM3_4	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.0	
Bus_LM3_5	20.000										4.590	84.3	145.7	
Bus_LM3_6	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.2	
Bus_LM3_7	20.000										4.544	84.4	144.7	
Bus_LM3_8	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.3	
Bus_LM3_9	20.000										4.497	84.4	143.6	
Bus_LM3_10	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.4	
Bus_LM3_11	20.000										4.451	84.5	142.6	
Bus_LM3_12	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.5	
Bus_LM3_13	20.000										4.405	84.6	141.5	
Bus_LM3_14	0.400		0.007	0.004	0.001	0.001					0.010	85.0	15.6	
Bus_LM3_27	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.9	
Bus_LM3_28	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.1	
Bus_LM3_29	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.2	
Bus_LM3_30	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.3	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM3_31	0.400		0.007	0.004	0.001	0.001					0.010	85.0	15.8	
Bus_LM3_32	20.000										0.042	85.5	1.4	
Bus_LM3_33	20.000										4.188	84.9	136.9	
Bus_LM3_34	20.000										4.233	84.9	138.0	
Bus_LM3_35	20.000										4.279	84.8	139.1	
Bus_LM3_36	20.000										4.324	84.8	140.2	
Bus_LM3_37	20.000										4.370	84.7	141.2	
Bus_LM3_38	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.8	
Bus_LM3_40	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.3	
Bus_LM3_41	20.000										0.033	84.2	1.1	
Bus_LM3_56	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.2	
Bus_LM3_57	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.9	
Bus_LM3_58	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.0	
Bus_LM3_59	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.0	
Bus_LM3_60	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.6	
Bus_LM3_61	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.5	
Bus_LM3_62	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.5	
Bus_LM3_63	20.000										4.102	85.0	134.5	
Bus_LM3_64	20.000										4.072	85.0	133.9	
Bus_LM3_65	20.000										4.028	85.1	132.8	
Bus_LM3_66	20.000										3.998	85.2	132.2	
Bus_LM3_67	20.000										3.963	85.2	131.4	
Bus_LM3_68	20.000										0.887	85.8	29.5	
Bus_LM3_69	20.000										0.854	85.9	28.4	
Bus_LM3_74	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.4	
Bus_LM3_75	0.400		0.023	0.014	0.004	0.003					0.032	85.0	55.0	
Bus_LM3_76	20.000										0.799	85.9	26.6	
Bus_LM3_77	20.000										0.765	85.9	25.5	
Bus_LM3_78	0.400		0.023	0.014	0.004	0.002					0.032	85.0	55.2	
Bus_LM3_79	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.5	
Bus_LM3_80	20.000										0.711	86.0	23.7	
Bus_LM3_81	20.000										0.656	86.1	21.9	
Bus_LM3_82	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.0	
Bus_LM3_83	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.6	
Bus_LM3_84	20.000										0.623	86.1	20.9	
Bus_LM3_85	20.000										0.177	85.4	5.9	
Bus_LM3_86	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.9	
Bus_LM3_87	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.8	
Bus_LM3_88	20.000										0.123	85.4	4.1	
Bus_LM3_89	20.000										0.105	85.2	3.5	
Bus_LM3_94	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.0	
Bus_LM3_95	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.8	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM3_96	20.000										0.072	85.0	2.4	
Bus_LM3_97	20.000										0.054	84.4	1.8	
Bus_LM3_108	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.8	
Bus_LM3_109	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.2	
Bus_LM3_110	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.4	
Bus_LM3_111	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.9	
Bus_LM3_112	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.6	
Bus_LM3_113	20.000										2.466	85.2	82.6	
Bus_LM3_114	20.000										2.489	85.2	83.2	
Bus_LM3_115	20.000										2.702	85.2	90.1	
Bus_LM3_116	20.000										2.815	85.1	93.7	
Bus_LM3_117	20.000										2.839	85.1	94.3	
Bus_LM3_128	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.9	
Bus_LM3_129	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.4	
Bus_LM3_130	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.9	
Bus_LM3_131	0.400		0.023	0.014	0.004	0.003					0.032	85.0	55.1	
Bus_LM3_132	0.400		0.023	0.014	0.004	0.003					0.032	85.0	55.1	
Bus_LM3_133	20.000										0.033	84.2	1.1	
Bus_LM3_134	20.000										0.066	84.9	2.2	
Bus_LM3_135	20.000										0.083	85.3	2.8	
Bus_LM3_136	20.000										0.137	85.3	4.6	
Bus_LM3_137	20.000										0.155	85.4	5.2	
Bus_LM3_140	20.000										0.569	86.2	19.1	
Bus_LM3_141	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.1	
Bus_LM3_144	20.000										0.544	86.2	18.3	
Bus_LM3_145	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.4	
Bus_LM3_146	20.000										0.520	86.2	17.5	
Bus_LM3_147	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.1	
Bus_LM3_152	20.000										0.496	86.2	16.7	
Bus_LM3_153	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.3	
Bus_LM3_156	20.000										0.024	84.4	0.8	
Bus_LM3_157	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_159	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.4	
Bus_LM3_160	20.000										0.095	85.9	3.2	
Bus_LM3_161	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_162	20.000										0.071	85.7	2.4	
Bus_LM3_163	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_164	20.000										0.048	85.4	1.6	
Bus_LM3_165	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_166	20.000										0.024	84.4	0.8	
Bus_LM3_167	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_170	20.000										0.024	84.4	0.8	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM3_171	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_173	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_175	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.3	
Bus_LM3_176	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.5	
Bus_LM3_177	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_178	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_180	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_182	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_183	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_184	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_188	20.000										4.685	84.2	147.8	
Bus_LM3_188_	20.000										4.382	84.6	141.2	
Bus_LM3_189	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.9	
Bus_LM3_191	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_192	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_193	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_194	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_196	0.400		0.013	0.008	0.002	0.001					0.018	85.0	31.0	
Bus_LM3_198	0.400		0.038	0.024	0.007	0.004					0.053	85.0	91.0	
Bus_LM3_199	0.400		0.023	0.014	0.004	0.002					0.032	85.0	55.5	
Bus_LM3_200	0.400		0.023	0.014	0.004	0.002					0.032	85.0	55.6	
Bus_LM3_201	0.400		0.023	0.014	0.004	0.002					0.032	85.0	55.7	
Bus_LM3_202	0.400		0.023	0.014	0.004	0.002					0.032	85.0	55.7	
Bus_LM3_203	0.400		0.023	0.014	0.004	0.002					0.032	85.0	55.8	
Bus_LM3_205	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_207	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_208	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_209	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_210	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_211	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_212	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_213	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_214	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.1	
Bus_LM3_217	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.2	
Bus_LM3_218	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.1	
Bus_LM3_219	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.3	
Bus_LM3_220	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.2	
Bus_LM3_221	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.4	
Bus_LM3_222	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.3	
Bus_LM3_223	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_224	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_225	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.1	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM3_226	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_230	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.1	
Bus_LM3_232	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_234	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_235	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.6	
Bus_LM3_236	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.6	
Bus_LM3_239	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.3	
Bus_LM3_240	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.7	
Bus_LM3_245	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.6	
Bus_LM3_246	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_247	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.7	
Bus_LM3_248	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.4	
Bus_LM3_251	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.9	
Bus_LM3_252	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_255	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_256	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_258	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.9	
Bus_LM3_261	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_262	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_263	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_264	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_265	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_266	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.9	
Bus_LM3_268	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.9	
Bus_LM3_272	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.8	
Bus_LM3_273	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_274	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.8	
Bus_LM3_278	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_279	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.9	
Bus_LM3_280	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_284	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_285	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.0	
Bus_LM3_286	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.6	
Bus_LM3_288	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.1	
Bus_LM3_291	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.1	
Bus_LM3_292	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.1	
Bus_LM3_297	0.400		0.017	0.011	0.002	0.001					0.023	85.0	44.3	
Bus_LM3_298	0.400		0.017	0.011	0.002	0.001					0.023	85.0	44.4	
Bus_LM3_299	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.7	
Bus_LM3_300	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.7	
Bus_LM3_305	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.1	
Bus_LM3_306	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.1	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM3_307	0.400		0.017	0.011	0.003	0.002					0.023	85.0	43.0	
Bus_LM3_308	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_313	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_314	0.400		0.017	0.011	0.002	0.001					0.023	85.0	44.5	
Bus_LM3_315	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_316	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_321	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_322	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_323	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_324	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_331	0.400		0.017	0.011	0.003	0.002					0.023	85.0	43.1	
Bus_LM3_332	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_333	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_334	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_335	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_336	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_338	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_339	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_343	0.400		0.014	0.008	0.002	0.001					0.018	85.0	34.2	
Bus_LM3_344	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_345	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_350	0.400		0.017	0.011	0.003	0.002					0.023	85.0	43.1	
Bus_LM3_351	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_352	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_354	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_357	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_358	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_359	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_360	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.2	
Bus_LM3_362	0.400		0.038	0.024	0.007	0.004					0.053	85.0	90.2	
Bus_MR1_GMP1	0.400		0.024	0.015	0.006	0.004					0.035	85.0	50.5	
Bus_MR1_GMP2	20.000										2.156	85.3	60.6	
Bus_MR1_GMP5	0.400		0.024	0.015	0.006	0.004					0.035	85.0	50.7	
Bus_MR1_GMP6	20.000										2.087	85.3	59.0	
Bus_MR1_GMP7	0.400		0.027	0.017	0.007	0.004					0.040	85.0	58.2	
Bus_MR1_GMP8	20.000										2.046	85.3	58.1	
Bus_MR1_GMP9	0.400		0.054	0.034	0.013	0.008					0.080	85.0	116.6	
Bus_MR1_GMP10	20.000										1.999	85.3	56.9	
Bus_MR1_GMP11	0.400		0.102	0.063	0.025	0.015					0.149	85.0	218.7	
Bus_MR1_GMP12	20.000										1.912	85.3	54.6	
Bus_MR1_GMP13	0.400		0.027	0.017	0.007	0.004					0.040	85.0	58.5	
Bus_MR1_GMP14	20.000										1.755	85.4	50.3	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_MR1_GMP15	0.400		0.027	0.017	0.006	0.004					0.040	85.0	58.6	
Bus_MR1_GMP16	20.000										1.710	85.4	49.1	
Bus_MR1_GMP17	0.400		0.027	0.017	0.006	0.004					0.040	85.0	58.7	
Bus_MR1_GMP18	20.000										1.665	85.4	47.9	
Bus_MR1_GMP19	0.400		0.054	0.034	0.013	0.008					0.079	85.0	117.6	
Bus_MR1_GMP20	20.000										1.621	85.4	46.8	
Bus_MR1_GMP21	0.400		0.027	0.017	0.006	0.004					0.039	85.0	58.9	
Bus_MR1_GMP22	20.000										1.536	85.4	44.5	
Bus_MR1_GMP23	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
Bus_MR1_GMP24	20.000										1.493	85.4	43.3	
Bus_MR1_GMP25	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.1	
Bus_MR1_GMP26	20.000										0.709	85.3	20.6	
Bus_MR1_GMP27	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.2	
Bus_MR1_GMP28	20.000										0.628	85.4	18.2	
Bus_MR1_GMP29	0.400		0.017	0.011	0.004	0.002					0.025	85.0	37.1	
Bus_MR1_GMP30	20.000										0.026	84.1	0.7	
Bus_MR1_GMP31	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.2	
Bus_MR1_GMP32	20.000										0.522	85.4	15.2	
Bus_MR1_GMP33	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP34	20.000										0.441	85.5	12.8	
Bus_MR1_GMP35	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP36	20.000										0.401	85.4	11.7	
Bus_MR1_GMP37	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP38	20.000										0.361	85.4	10.5	
Bus_MR1_GMP43	20.000										0.120	85.3	3.5	
Bus_MR1_GMP44	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP45	20.000										0.080	85.0	2.3	
Bus_MR1_GMP46	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP47	20.000										0.041	84.3	1.2	
Bus_MR1_GMP48	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP49	20.000										0.161	85.0	4.7	
Bus_MR1_GMP50	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.4	
Bus_MR1_GMP51	20.000										0.080	85.0	2.3	
Bus_MR1_GMP52	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP53	20.000										0.041	84.3	1.2	
Bus_MR1_GMP54	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP55	20.000										0.743	85.3	21.6	
Bus_MR1_GMP56	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.1	
Bus_MR1_GMP57	20.000										0.081	84.3	2.4	
Bus_MR1_GMP58	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.1	
Bus_MR1_GMP59	20.000										0.081	84.3	2.4	
Bus_MR1_GMP60	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.1	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_MR1_GMP61	20.000										0.041	84.3	1.2	
Bus_MR1_GMP62	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
Bus_MR1_GMP63	20.000										0.041	84.3	1.2	
Bus_MR1_GMP64	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
Bus_MR1_GMP65	20.000										0.122	84.3	3.5	
Bus_MR1_GMP66	0.400		0.082	0.051	0.019	0.012					0.118	85.0	176.9	
Bus_MR1_GMP72	20.000										0.260	85.6	7.6	
Bus_MR1_GMP73	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP74	20.000										0.220	85.6	6.4	
Bus_MR1_GMP75	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP76	20.000										0.180	85.6	5.2	
Bus_MR1_GMP77	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP78	20.000										0.140	85.5	4.1	
Bus_MR1_GMP79	0.400		0.014	0.008	0.003	0.002					0.020	85.0	29.6	
Bus_MR1_GMP80	20.000										0.120	85.3	3.5	
Bus_MR1_GMP81	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP82	20.000										0.081	84.3	2.4	
Bus_MR1_GMP83	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.2	
Bus_MR1_GMP86	20.000										0.160	85.4	4.7	
Bus_MR1_GMP87	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP92	20.000										2.114	85.3	59.6	
Bus_MR1_GMP93	0.400		0.014	0.008	0.003	0.002					0.020	85.0	29.0	
Bus_MR1_GMP94	20.000										2.162	85.3	60.6	
Bus_MR1_GMP97	20.000										0.300	85.7	8.7	
Bus_MR1_GMP98	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
B_AG2_GK7	20.000										6.084	85.2	190.9	
B_GI_MARISA	150.000										18.942	81.1	72.9	
B_LM3	20.000										4.698	84.1	147.8	
B_LMT1_GMT1	20.000										0.085	83.9	2.9	
B_LMT1_GMT2	0.400		0.059	0.037	0.010	0.006					0.081	85.0	144.7	
B_LMT1_GMT3	20.000										0.389	86.0	13.3	
B_LMT1_GMT7	0.400		0.024	0.015	0.004	0.003					0.034	85.0	59.6	
B_LMT1_GMT8	20.000										0.035	84.1	1.2	
B_LMT1_GMT9	20.000										0.305	86.4	10.4	
B_LMT1_GMT16	0.400		0.007	0.004	0.001	0.001					0.009	85.0	16.2	
B_LMT1_GMT17	20.000										0.009	84.8	0.3	
B_LMT1_GMT18	0.400		0.015	0.009	0.003	0.002					0.021	85.0	35.8	
B_LMT1_GMT19	20.000										0.021	84.7	0.7	
B_LMT1_GMT20	20.000										0.262	86.3	9.0	
B_LMT1_GMT21	20.000										0.271	86.4	9.3	
B_LMT1_GMT25	0.400		0.003	0.002	0.000	-					0.004	85.0	6.5	
B_LMT1_GMT27	20.000										0.242	86.1	8.3	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT1_GMT28	20.000										0.034	86.1	1.2	
B_LMT1_GMT32	0.400		0.022	0.013	0.004	0.002					0.030	85.0	52.8	
B_LMT1_GMT33	20.000										0.031	84.2	1.1	
B_LMT1_GMT34	20.000										0.030	85.2	1.0	
B_LMT1_GMT35	20.000										0.208	85.9	7.1	
B_LMT1_GMT39	0.400		0.006	0.004	0.001	0.001					0.008	85.0	14.6	
B_LMT1_GMT41	20.000										0.083	85.1	2.8	
B_LMT1_GMT42	20.000										0.082	85.5	2.8	
B_LMT1_GMT45	0.400		0.032	0.020	0.005	0.003					0.044	85.0	77.1	
B_LMT1_GMT46	20.000										0.074	84.8	2.6	
B_LMT1_GMT47	0.400		0.021	0.013	0.004	0.002					0.029	85.0	51.2	
B_LMT1_GMT48	20.000										0.030	84.3	1.0	
B_LMT1_GMT55	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT1_GMT56	0.400		0.020	0.012	0.003	0.002					0.027	85.0	47.8	
B_LMT1_GMT57	0.400		0.024	0.015	0.004	0.003					0.033	85.0	57.2	
B_LMT1_GMT58	20.000										0.097	85.1	3.3	
B_LMT1_GMT59	20.000										0.124	85.2	4.3	
B_LMT1_GMT60	20.000										0.127	85.4	4.3	
B_LMT1_GMT61	20.000										0.127	85.6	4.3	
B_LMT1_GMT66	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.2	
B_LMT1_GMT67	0.400		0.007	0.005	0.001	0.001					0.010	85.0	17.8	
B_LMT1_GMT68	20.000										0.010	84.9	0.4	
B_LMT1_GMT69	20.000										0.064	84.9	2.2	
B_LMT1_GMT75	0.400		0.020	0.013	0.003	0.002					0.028	85.0	49.5	
B_LMT1_GMT76	0.400		0.011	0.007	0.002	0.001					0.015	85.0	26.1	
B_LMT1_GMT77	20.000										0.015	84.6	0.5	
B_LMT1_GMT78	20.000										0.068	85.7	2.3	
B_LMT1_GMT79	20.000										0.097	85.6	3.3	
B_LMT1_GMT80	20.000										1.435	85.5	49.1	
B_LMT1_GMT84	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.2	
B_LMT1_GMT85	20.000										0.054	84.3	1.8	
B_LMT1_GMT86	20.000										0.053	84.9	1.8	
B_LMT1_GMT90	0.400		0.014	0.008	0.002	0.001					0.019	85.0	32.8	
B_LMT1_GMT91	20.000										0.019	84.5	0.7	
B_LMT1_GMT92	20.000										1.336	85.4	45.9	
B_LMT1_GMT98	0.400		0.048	0.030	0.008	0.005					0.066	85.0	117.9	
B_LMT1_GMT99	0.400		0.004	0.003	0.001	-					0.006	85.0	9.7	
B_LMT1_GMT100	20.000										0.006	85.0	0.2	
B_LMT1_GMT101	20.000										0.074	84.6	2.5	
B_LMT1_GMT102	20.000										0.073	85.0	2.5	
B_LMT1_GMT103	20.000										1.315	85.4	45.2	
B_LMT1_GMT107	0.400		0.056	0.035	0.009	0.006					0.076	85.0	137.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT1_GMT108	20.000										0.079	84.0	2.7	
B_LMT1_GMT109	20.000										1.240	85.4	42.7	
B_LMT1_GMT110	20.000										1.159	85.4	40.0	
B_LMT1_GMT116	20.000										0.126	84.8	4.3	
B_LMT1_GMT117	0.400		0.061	0.038	0.010	0.006					0.084	85.0	149.2	
B_LMT1_GMT118	0.400		0.029	0.018	0.005	0.003					0.039	85.0	69.3	
B_LMT1_GMT119	20.000										0.040	84.5	1.4	
B_LMT1_GMT120	20.000										0.126	84.6	4.4	
B_LMT1_GMT121	20.000										0.546	86.0	18.9	
B_LMT1_GMT125	0.400		0.037	0.023	0.006	0.004					0.050	85.0	91.4	
B_LMT1_GMT126	20.000										0.053	83.6	1.8	
B_LMT1_GMT127	20.000										0.420	86.2	14.5	
B_LMT1_GMT128	0.400		0.014	0.008	0.002	0.001					0.019	85.0	32.6	
B_LMT1_GMT129	20.000										0.019	84.9	0.7	
B_LMT1_GMT130	20.000										0.368	86.4	12.7	
B_LMT1_GMT137	0.400		0.025	0.016	0.004	0.003					0.035	85.0	61.0	
B_LMT1_GMT138	20.000										0.035	84.6	1.2	
B_LMT1_GMT139	0.400		0.013	0.008	0.002	0.001					0.018	85.0	31.1	
B_LMT1_GMT140	20.000										0.018	84.8	0.6	
B_LMT1_GMT141	20.000										0.315	86.4	10.9	
B_LMT1_GMT142	20.000										0.350	86.3	12.1	
B_LMT1_GMT146	0.400		0.049	0.030	0.008	0.005					0.067	85.0	120.3	
B_LMT1_GMT147	20.000										0.069	84.1	2.4	
B_LMT1_GMT148	20.000										0.297	86.3	10.3	
B_LMT1_GMT152	20.000										0.097	85.7	3.4	
B_LMT1_GMT153	0.400		0.027	0.016	0.004	0.003					0.036	85.0	64.4	
B_LMT1_GMT154	20.000										0.097	85.4	3.4	
B_LMT1_GMT155	20.000										0.060	85.4	2.1	
B_LMT1_GMT156	0.400		0.021	0.013	0.003	0.002					0.029	85.0	51.6	
B_LMT1_GMT157	20.000										0.229	86.6	7.9	
B_LMT1_GMT162	0.400		0.009	0.005	0.001	0.001					0.012	85.0	21.4	
B_LMT1_GMT163	20.000										0.031	85.5	1.1	
B_LMT1_GMT164	20.000										0.019	84.5	0.7	
B_LMT1_GMT165	0.400		0.014	0.008	0.002	0.001					0.019	85.0	33.0	
B_LMT1_GMT169	0.400		0.004	0.003	0.001	-					0.006	85.0	9.8	
B_LMT1_GMT170	20.000										0.006	84.9	0.2	
B_LMT1_GMT171	20.000										0.132	86.9	4.6	
B_LMT1_GMT179	0.400		0.012	0.008	0.002	0.001					0.017	85.0	30.1	
B_LMT1_GMT180	20.000										0.017	84.1	0.6	
B_LMT1_GMT181	20.000										0.053	85.0	1.8	
B_LMT1_GMT182	0.400		0.026	0.016	0.004	0.003					0.035	85.0	62.7	
B_LMT1_GMT183	20.000										0.127	86.5	4.4	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT1_GMT187	0.400		0.039	0.024	0.007	0.004					0.054	85.0	95.7	
B_LMT1_GMT188	20.000										0.055	84.6	1.9	
B_LMT1_GMT189	20.000										0.075	86.9	2.6	
B_LMT1_GMT190	0.400		0.003	0.002	0.001	-					0.005	85.0	8.2	
B_LMT1_GMT191	20.000										0.005	84.8	0.2	
B_LMT1_GMT192	20.000										0.021	89.9	0.7	
B_LMT1_GMT193	0.400		0.012	0.008	0.002	0.001					0.017	85.0	29.7	
B_LMT1_GMT194	20.000										0.017	84.6	0.6	
B_LMT1_GMT195	20.000										0.017	86.3	0.6	
B_LMT1_GMT199	20.000										0.087	84.9	3.0	
B_LMT1_GMT200	0.400		0.037	0.023	0.006	0.004					0.051	85.0	91.1	
B_LMT1_GMT201	20.000										0.087	84.6	3.0	
B_LMT1_GMT202	20.000										0.035	84.1	1.2	
B_LMT1_GMT203	0.400		0.024	0.015	0.004	0.002					0.033	85.0	60.0	
B_LMT1_GMT207	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.8	
B_LMT1_GMT208	20.000										0.054	84.3	1.9	
B_LMT1_GMT209	20.000										0.527	84.8	18.2	
B_LMT1_GMT213	0.400		0.047	0.029	0.008	0.005					0.064	85.0	115.0	
B_LMT1_GMT215	20.000										0.473	84.7	16.4	
B_LMT1_GMT218	0.400		0.042	0.026	0.007	0.004					0.058	85.0	103.1	
B_LMT1_GMT219	20.000										0.407	84.7	14.1	
B_LMT1_GMT223	0.400		0.029	0.018	0.005	0.003					0.040	85.0	72.2	
B_LMT1_GMT224	20.000										0.042	83.9	1.4	
B_LMT1_GMT225	20.000										0.347	84.7	12.0	
B_LMT1_GMT226	0.400		0.046	0.028	0.007	0.005					0.062	85.0	111.7	
B_LMT1_GMT227	20.000										0.064	84.2	2.2	
B_LMT1_GMT228	20.000										0.306	84.6	10.6	
B_LMT1_GMT235	0.400		0.033	0.021	0.005	0.003					0.046	85.0	81.1	
B_LMT1_GMT236	0.400		0.023	0.014	0.004	0.002					0.032	85.0	56.7	
B_LMT1_GMT237	20.000										0.196	84.3	6.8	
B_LMT1_GMT238	20.000										0.242	84.5	8.4	
B_LMT1_GMT243	0.400		0.045	0.028	0.007	0.004					0.061	85.0	113.1	
B_LMT1_GMT244	20.000										0.086	84.9	3.0	
B_LMT1_GMT245	20.000										0.163	84.2	5.7	
B_LMT1_GMT246	0.400		0.053	0.033	0.008	0.005					0.071	85.0	135.2	
B_LMT1_GMT250	0.400		0.012	0.008	0.002	0.001					0.017	85.0	30.1	
B_LMT1_GMT251	20.000										0.017	84.1	0.6	
B_LMT1_GMT252	20.000										0.021	88.2	0.7	
B_LMT1_GMT253	0.400		0.003	0.002	0.001	-					0.005	85.0	8.2	
B_LMT1_GMT254	20.000										0.005	84.8	0.2	
B_LMT1_GMT255	20.000										0.004	90.8	0.2	
B_LMT2_1	20.000										0.848	87.3	29.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_LMT2_GMT1	20.000										0.847	87.3	29.0	
B_LMT2_GMT2	0.400		0.021	0.013	0.004	0.002					0.029	85.0	51.1	
B_LMT2_GMT3	20.000										0.846	87.3	29.0	
B_LMT2_GMT6	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.3	
B_LMT2_GMT7	20.000										0.816	87.4	28.0	
B_LMT2_GMT10	0.400		0.003	0.002	0.001	-					0.005	85.0	8.1	
B_LMT2_GMT11	20.000										0.761	87.5	26.1	
B_LMT2_GMT12	20.000										0.005	84.8	0.2	
B_LMT2_GMT16	20.000										0.756	87.5	26.0	
B_LMT2_GMT17	0.400		0.027	0.016	0.004	0.003					0.036	85.0	64.9	
B_LMT2_GMT18	20.000										0.038	84.0	1.3	
B_LMT2_GMT23	0.400		0.023	0.014	0.004	0.002					0.032	85.0	56.4	
B_LMT2_GMT24	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.6	
B_LMT2_GMT25	20.000										0.685	87.7	23.6	
B_LMT2_GMT26	20.000										0.718	87.6	24.7	
B_LMT2_GMT27	0.400		0.029	0.018	0.005	0.003					0.040	85.0	72.0	
B_LMT2_GMT28	0.400		0.008	0.005	0.001	0.001					0.011	85.0	19.6	
B_LMT2_GMT29	20.000										0.590	88.1	20.4	
B_LMT2_GMT30	20.000										0.631	87.9	21.8	
B_LMT2_GMT33	0.400		0.020	0.013	0.003	0.002					0.028	85.0	49.8	
B_LMT2_GMT34	20.000										0.578	88.1	20.0	
B_LMT2_GMT35	20.000										0.578	88.2	20.0	
B_LMT2_GMT39	20.000										0.549	88.3	19.0	
B_LMT2_GMT40	0.400		0.003	0.002	0.000	-					0.004	85.0	6.5	
B_LMT2_GMT41	20.000										0.004	84.8	0.1	
B_LMT2_GMT44	0.400		0.014	0.008	0.002	0.001					0.019	85.0	33.5	
B_LMT2_GMT45	20.000										0.545	88.2	18.9	
B_LMT2_GMT46	0.400		0.012	0.007	0.002	0.001					0.016	85.0	28.0	
B_LMT2_GMT47	20.000										0.526	88.3	18.2	
B_LMT2_GMT52	0.400		0.022	0.013	0.004	0.002					0.030	85.0	53.4	
B_LMT2_GMT53	0.400		0.012	0.008	0.002	0.001					0.017	85.0	30.1	
B_LMT2_GMT54	20.000										0.479	88.5	16.6	
B_LMT2_GMT55	20.000										0.510	88.4	17.7	
B_LMT2_GMT59	20.000										0.462	88.6	16.0	
B_LMT2_GMT60	0.400		0.004	0.003	0.001	-					0.006	85.0	9.8	
B_LMT2_GMT61	20.000										0.006	84.9	0.2	
B_LMT2_GMT66	0.400		0.004	0.003	0.001	-					0.006	85.0	9.8	
B_LMT2_GMT67	20.000										0.456	88.6	15.9	
B_LMT2_GMT68	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT69	20.000										0.451	88.6	15.7	
B_LMT2_GMT70	20.000										0.448	88.5	15.6	
B_LMT2_GMT71	20.000										0.106	89.1	3.7	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_LMT2_GMT75	20.000										0.106	88.8	3.7	
B_LMT2_GMT76	0.400		0.003	0.002	0.001	-					0.005	85.0	8.2	
B_LMT2_GMT77	20.000										0.005	84.8	0.2	
B_LMT2_GMT81	20.000										0.102	88.5	3.6	
B_LMT2_GMT82	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT83	20.000										0.004	84.9	0.1	
B_LMT2_GMT90	0.400		0.023	0.014	0.004	0.002					0.032	85.0	57.0	
B_LMT2_GMT91	20.000										0.033	84.2	1.1	
B_LMT2_GMT92	20.000										0.081	88.1	2.8	
B_LMT2_GMT93	20.000										0.099	88.1	3.4	
B_LMT2_GMT94	0.400		0.014	0.008	0.002	0.001					0.019	85.0	32.9	
B_LMT2_GMT95	20.000										0.019	84.8	0.7	
B_LMT2_GMT108	0.400		0.006	0.004	0.001	0.001					0.008	85.0	14.8	
B_LMT2_GMT109	20.000										0.008	84.8	0.3	
B_LMT2_GMT110	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT111	20.000										0.003	84.9	0.1	
B_LMT2_GMT112	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT113	20.000										0.004	84.9	0.1	
B_LMT2_GMT114	20.000										0.035	86.6	1.2	
B_LMT2_GMT115	20.000										0.038	88.0	1.3	
B_LMT2_GMT116	20.000										0.045	88.6	1.6	
B_LMT2_GMT117	20.000										0.049	89.4	1.7	
B_LMT2_GMT118	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT119	20.000										0.004	84.9	0.1	
B_LMT2_GMT123	0.400		0.023	0.014	0.004	0.002					0.032	85.0	57.0	
B_LMT2_GMT124	20.000										0.033	84.2	1.1	
B_LMT2_GMT125	20.000										0.032	85.1	1.1	
B_LMT2_GMT130	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT131	20.000										0.342	88.2	11.9	
B_LMT2_GMT132	0.400		0.005	0.003	0.001	0.001					0.007	85.0	13.1	
B_LMT2_GMT133	20.000										0.339	88.2	11.8	
B_LMT2_GMT145	20.000										0.331	88.2	11.6	
B_LMT2_GMT146	0.400		0.010	0.006	0.002	0.001					0.014	85.0	24.8	
B_LMT2_GMT147	20.000										0.014	84.6	0.5	
B_LMT2_GMT152	0.400		0.011	0.007	0.002	0.001					0.015	85.0	26.5	
B_LMT2_GMT153	20.000										0.318	88.1	11.1	
B_LMT2_GMT154	0.400		0.007	0.004	0.001	0.001					0.009	85.0	16.5	
B_LMT2_GMT155	20.000										0.303	88.2	10.6	
B_LMT2_GMT158	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT159	20.000										0.293	88.2	10.3	
B_LMT2_GMT160	20.000												-	
B_LMT2_GMT161	20.000										0.291	88.1	10.2	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_LMT2_GMT165	0.400		0.007	0.004	0.001	0.001					0.009	85.0	16.5	
B_LMT2_GMT166	20.000										0.009	84.8	0.3	
B_LMT2_GMT167	20.000										0.291	87.9	10.2	
B_LMT2_GMT168	20.000										0.291	88.0	10.2	
B_LMT2_GMT175	0.400		0.011	0.007	0.002	0.001					0.015	85.0	26.4	
B_LMT2_GMT176	20.000										0.015	84.8	0.5	
B_LMT2_GMT177	0.400		0.001	0.001	0.000	-					0.002	85.0	3.3	
B_LMT2_GMT178	20.000										0.002	85.0	0.1	
B_LMT2_GMT179	20.000										0.002	97.8	0.1	
B_LMT2_GMT180	20.000										0.016	89.1	0.6	
B_LMT2_GMT181	20.000										0.282	87.8	9.9	
B_LMT2_GMT188	0.400		0.007	0.005	0.001	0.001					0.010	85.0	18.2	
B_LMT2_GMT189	20.000										0.010	84.7	0.4	
B_LMT2_GMT190	0.400		0.023	0.014	0.004	0.002					0.031	85.0	57.2	
B_LMT2_GMT191	20.000										0.033	84.1	1.1	
B_LMT2_GMT192	20.000										0.257	87.4	9.0	
B_LMT2_GMT193	20.000										0.267	87.5	9.4	
B_LMT2_GMT194	0.400		0.001	0.000	0.000	-					0.001	85.0	1.6	
B_LMT2_GMT195	20.000										0.001	85.0	-	
B_LMT2_GMT196	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT197	20.000										0.004	84.9	0.1	
B_LMT2_GMT198	20.000										0.225	87.4	7.9	
B_LMT2_GMT199	20.000										0.225	87.6	7.9	
B_LMT2_GMT203	0.400		0.027	0.016	0.004	0.003					0.036	85.0	64.9	
B_LMT2_GMT204	20.000										0.037	84.5	1.3	
B_LMT2_GMT205	20.000										0.222	87.2	7.8	
B_LMT2_GMT206	0.400		0.019	0.012	0.003	0.002					0.026	85.0	46.9	
B_LMT2_GMT207	20.000										0.027	84.3	0.9	
B_LMT2_GMT208	20.000										0.185	87.4	6.5	
B_LMT2_GMT215	0.400		0.021	0.013	0.003	0.002					0.029	85.0	52.1	
B_LMT2_GMT216	20.000										0.030	84.2	1.0	
B_LMT2_GMT217	20.000										0.029	85.2	1.0	
B_LMT2_GMT218	20.000										0.057	85.7	2.0	
B_LMT2_GMT219	0.400		0.020	0.013	0.003	0.002					0.028	85.0	50.4	
B_LMT2_GMT220	20.000										0.029	84.2	1.0	
B_LMT2_GMT221	20.000										0.159	87.5	5.6	
B_LMT2_GMT228	0.400		0.019	0.012	0.003	0.002					0.026	85.0	47.0	
B_LMT2_GMT229	20.000										0.027	84.3	0.9	
B_LMT2_GMT230	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT231	20.000										0.003	84.9	0.1	
B_LMT2_GMT232	20.000										0.003	94.3	0.1	
B_LMT2_GMT233	20.000										0.029	87.3	1.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_LMT2_GMT243	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT244	20.000										0.004	84.9	0.1	
B_LMT2_GMT245	0.400		0.021	0.013	0.003	0.002					0.029	85.0	51.5	
B_LMT2_GMT246	20.000										0.029	84.6	1.0	
B_LMT2_GMT247	0.400		0.001	0.001	0.000	-					0.002	85.0	3.3	
B_LMT2_GMT248	20.000										0.002	84.9	0.1	
B_LMT2_GMT249	20.000										0.042	87.6	1.5	
B_LMT2_GMT250	20.000										0.071	87.2	2.5	
B_LMT2_GMT251	20.000										0.074	87.8	2.6	
B_LMT2_GMT258	0.400		0.005	0.003	0.001	0.001					0.007	85.0	13.2	
B_LMT2_GMT259	20.000										0.041	86.4	1.4	
B_LMT2_GMT260	0.400		0.001	0.001	0.000	-					0.002	85.0	3.3	
B_LMT2_GMT261	0.400		0.023	0.014	0.004	0.002					0.031	85.0	57.3	
B_LMT2_GMT262	20.000										0.033	84.1	1.1	
B_LMT2_GMT263	20.000										0.034	85.9	1.2	
B_MR3	20.000										0.019	-	0.5	
B_MR04_GM	20.000										4.498	84.6	126.1	
B_MR04_GM1	20.000										2.195	84.4	61.6	
B_MR04_GM_1	0.400		0.025	0.015	0.006	0.004					0.037	85.0	52.7	
B_MR04_GM2	20.000										2.155	84.4	60.6	
B_MR04_GM_2	0.400		1.428	0.885	0.358	0.222					2.101	85.0	3028.6	
B_MR04_GM3	20.000										2.298	84.8	64.5	
B_MR04_GM_3	0.400		0.030	0.019	0.008	0.005					0.045	85.0	64.0	
B_MR04_GM4	20.000										0.029	85.8	0.8	
B_MR04_GM_4	0.400		0.009	0.006	0.002	0.002					0.014	85.0	19.9	
B_MR04_GM5	20.000										0.015	84.5	0.4	
B_MR04_GM_5	0.400		0.010	0.006	0.003	0.002					0.015	85.0	20.9	
B_MR04_GM6	20.000										2.222	84.7	62.4	
B_MR04_GM_6	0.400		0.014	0.008	0.003	0.002					0.020	85.0	29.1	
B_MR04_GM7	20.000										2.198	84.7	61.9	
B_MR04_GM_7	0.400		0.021	0.013	0.005	0.003					0.030	85.0	44.9	
B_MR04_GM8	20.000										2.163	84.8	61.0	
B_MR04_GM_8	0.400		0.001	0.000	0.000	-					0.001	85.0	1.4	
B_MR04_GM9	20.000										2.160	84.8	61.0	
B_MR04_GM_9	0.400		0.062	0.038	0.014	0.009					0.089	85.0	134.7	
B_MR04_GM10	20.000										2.062	84.8	58.3	
B_MR04_GM_10	0.400		0.013	0.008	0.003	0.002					0.019	85.0	26.8	
B_MR04_GM11	20.000										2.040	84.8	57.7	
B_MR04_GM_11	0.400		0.046	0.029	0.010	0.006					0.066	85.0	103.4	
B_MR04_GM12	20.000										1.965	84.9	55.7	
B_MR04_GM_12	0.400		0.015	0.009	0.004	0.002					0.021	85.0	31.3	
B_MR04_GM13	20.000										0.241	83.5	6.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_MR04_GM_13	0.400		0.079	0.049	0.017	0.010					0.113	85.0	177.8	
B_MR04_GM14	20.000										0.117	84.0	3.4	
B_MR04_GM_14	0.400		0.058	0.036	0.013	0.008					0.083	85.0	126.6	
B_MR04_GM15	20.000										0.115	83.6	3.3	
B_MR04_GM_15	0.400		0.045	0.028	0.009	0.006					0.064	85.0	101.4	
B_MR04_GM16	20.000										0.172	89.3	4.9	
B_MR04_GM_16	0.400		0.004	0.002	0.001	0.001					0.005	85.0	7.6	
B_MR04_GM17	20.000										0.058	92.0	1.6	
B_MR04_GM_17	0.400		0.028	0.017	0.007	0.004					0.041	85.0	60.0	
B_MR04_GM18	20.000										0.027	66.0	0.8	
B_MR04_GM_18	0.400		0.014	0.009	0.003	0.002					0.020	85.0	29.6	
B_MR04_GM19	20.000										0.253	84.1	7.2	
B_MR04_GM_19	0.400		0.077	0.048	0.018	0.011					0.111	85.0	166.3	
B_MR04_GM20	20.000										0.137	84.0	3.9	
B_MR04_GM_20	0.400		0.051	0.031	0.012	0.007					0.073	85.0	111.1	
B_MR04_GM21	20.000										0.060	84.0	1.7	
B_MR04_GM_21	0.400		0.040	0.025	0.009	0.006					0.057	85.0	85.8	
B_MR04_GM22	20.000										0.690	85.5	19.7	
B_MR04_GM_22	0.400		0.017	0.010	0.004	0.003					0.025	85.0	35.9	
B_MR04_GM23	20.000										0.765	85.2	21.9	
B_MR04_GM_23	0.400		0.048	0.030	0.010	0.006					0.067	85.0	108.1	
B_MR04_GM24	20.000										0.874	85.1	25.0	
B_MR04_GM_24	0.400		0.041	0.026	0.010	0.006					0.060	85.0	89.7	
B_MR04_GM25	20.000										0.811	85.2	23.2	
B_MR04_GM_25	0.400		0.031	0.019	0.008	0.005					0.045	85.0	65.5	
B_MR04_GM26	20.000										1.941	84.9	55.1	
B_MR04_GM_26	0.400		0.023	0.014	0.006	0.004					0.034	85.0	49.5	
B_MR04_GM27	20.000										1.904	84.9	54.1	
B_MR04_GM_27	0.400		0.059	0.037	0.013	0.008					0.085	85.0	129.7	
B_MR04_GM28	20.000										1.421	84.9	40.4	
B_MR04_GM_28	0.400		0.017	0.010	0.004	0.003					0.024	85.0	35.3	
B_MR04_GM29	20.000										1.395	84.9	39.7	
B_MR04_GM_29	0.400		0.026	0.016	0.006	0.004					0.038	85.0	54.9	
B_MR04_GM30	20.000										1.355	84.9	38.6	
B_MR04_GM_30	0.400		0.053	0.033	0.012	0.007					0.076	85.0	115.3	
B_MR04_GM31	20.000										1.274	85.0	36.3	
B_MR04_GM_31	0.400		0.023	0.014	0.006	0.004					0.034	85.0	48.6	
B_MR04_GM32	20.000										0.879	85.2	25.1	
B_MR04_GM_32	0.400		0.003	0.002	0.001	0.001					0.005	85.0	7.3	
B_MR04_GM33	20.000										0.360	84.5	10.3	
B_MR04_GM_33	0.400		0.013	0.008	0.003	0.002					0.019	85.0	27.9	
B_MR04_GM34	20.000										0.341	84.4	9.7	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_MR04_GM_34	0.400		0.055	0.034	0.013	0.008					0.081	85.0	118.5	
B_MR04_GM35	20.000										0.258	84.3	7.4	
B_MR04_GM_35	0.400		0.065	0.041	0.014	0.009					0.094	85.0	144.6	
B_MR04_GM36	20.000										0.033	85.7	1.0	
B_MR04_GM_36	0.400		0.004	0.003	0.001	0.001					0.006	85.0	9.2	
B_MR04_GM37	20.000										0.027	84.8	0.8	
B_MR04_GM_37	0.400		0.018	0.011	0.005	0.003					0.027	85.0	39.0	
B_MR04_GM38	20.000										0.065	83.9	1.9	
B_MR04_GM_38	0.400		0.043	0.026	0.010	0.006					0.062	85.0	92.8	
B_MR04_GM39	20.000										0.125	84.2	3.6	
B_MR04_GM_39	0.400		0.040	0.024	0.009	0.006					0.057	85.0	85.6	
B_MR04_GM40	20.000										0.392	84.9	11.1	
B_MR04_GM_40	0.400		0.043	0.027	0.011	0.007					0.064	85.0	92.6	
B_MR04_GM41	20.000										0.327	84.9	9.3	
B_MR04_GM_41	0.400		0.048	0.029	0.012	0.007					0.070	85.0	101.6	
B_MR04_GM42	20.000										0.036	85.7	1.0	
B_MR04_GM_42	0.400		0.014	0.009	0.004	0.002					0.021	85.0	29.4	
B_MR04_GM43	20.000										0.016	84.7	0.5	
B_MR04_GM_43	0.400		0.011	0.007	0.003	0.002					0.016	85.0	22.9	
B_MR04_GM44	20.000										0.220	84.7	6.2	
B_MR04_GM_44	0.400		0.056	0.035	0.014	0.008					0.082	85.0	120.1	
B_MR04_GM45	20.000										0.135	84.8	3.9	
B_MR04_GM_45	0.400		0.015	0.009	0.004	0.002					0.022	85.0	31.1	
B_MR04_GM46	20.000										0.114	84.5	3.2	
B_MR04_GM_46	0.400		0.035	0.022	0.009	0.005					0.052	85.0	74.9	
B_MR04_GM47	20.000										0.062	83.9	1.8	
B_MR04_GM_47	0.400		0.041	0.025	0.010	0.006					0.059	85.0	87.7	
B_MR04_GM48	20.000										0.045	84.6	1.3	
B_MR04_GM_48	0.400		0.030	0.019	0.007	0.005					0.044	85.0	63.9	
B_MR04_GM49	20.000										0.029	84.7	0.8	
B_MR04_GM_49	0.400		0.020	0.012	0.005	0.003					0.029	85.0	41.6	
B_MR6_GMP1	20.000										4.627	84.0	129.7	
B_MR6_GMP2	20.000										3.469	86.2	109.6	
B_MR6_GMP3	0.400		0.013	0.008	0.003	0.002					0.019	85.0	27.6	
B_MR6_GMP4	20.000										4.585	84.2	129.8	
B_MR6_GMP6	0.400		0.023	0.014	0.006	0.003					0.034	85.0	49.5	
B_MR6_GMP7	20.000										4.524	84.3	129.2	
B_MR6_GMP10	0.400		0.017	0.011	0.004	0.003					0.025	85.0	36.5	
B_MR6_GMP11	20.000										4.448	84.5	128.3	
B_MR6_GMP12	0.400		0.010	0.006	0.002	0.002					0.015	85.0	21.8	
B_MR6_GMP13	20.000										4.382	84.7	127.6	
B_MR6_GMP14	0.400		0.033	0.021	0.008	0.005					0.048	85.0	72.4	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_MR6_GMP15	20.000										4.327	84.9	127.2	
B_MR6_GMP16	20.000										4.238	85.1	125.8	
B_MR6_GMP19	20.000										0.258	85.3	7.6	
B_MR6_GMP20	0.400		0.038	0.024	0.009	0.005					0.055	85.0	83.4	
B_MR6_GMP21	20.000										0.056	84.5	1.7	
B_MR6_GMP24	0.400		0.020	0.012	0.004	0.003					0.028	85.0	43.2	
B_MR6_GMP25	20.000										0.202	85.2	6.0	
B_MR6_GMP26	20.000										0.029	84.5	0.9	
B_MR6_GMP30	20.000										0.174	84.8	5.2	
B_MR6_GMP31	0.400		0.021	0.013	0.005	0.003					0.030	85.0	46.2	
B_MR6_GMP32	20.000										0.031	84.4	0.9	
B_MR6_GMP35	0.400		0.097	0.060	0.022	0.013					0.140	85.0	213.8	
B_MR6_GMP36	20.000										0.144	84.3	4.3	
B_MR6_GMP37	20.000										0.050	89.9	1.5	
B_MR6_GMP42	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.3	
B_MR6_GMP43	0.400		0.008	0.005	0.002	0.001					0.012	85.0	17.7	
B_MR6_GMP44	20.000										0.018	86.9	0.5	
B_MR6_GMP45	20.000										0.007	84.9	0.2	
B_MR6_GMP46	20.000										0.018	89.0	0.5	
B_MR6_GMP51	0.400		0.016	0.010	0.004	0.002					0.023	85.0	34.2	
B_MR6_GMP52	0.400		0.003	0.002	0.001	-					0.004	85.0	5.9	
B_MR6_GMP53	20.000										0.010	88.5	0.3	
B_MR6_GMP54	20.000										0.033	87.0	1.0	
B_MR6_GMP55	20.000										0.033	88.2	1.0	
B_MR6_GMP58	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.3	
B_MR6_GMP59	20.000										0.007	84.9	0.2	
B_MR6_GMP62	0.400		0.012	0.007	0.003	0.002					0.017	85.0	25.2	
B_MR6_GMP63	20.000										0.050	85.3	1.5	
B_MR6_GMP64	0.400		0.023	0.014	0.005	0.003					0.033	85.0	51.1	
B_MR6_GMP65	20.000										0.034	84.4	1.0	
B_MR6_GMP66	20.000										3.898	85.2	116.8	
B_MR6_GMP69	0.400		0.041	0.026	0.009	0.006					0.059	85.0	92.0	
B_MR6_GMP70	20.000										3.815	85.3	115.3	
B_MR6_GMP71	0.400		0.007	0.004	0.001	0.001					0.010	85.0	15.0	
B_MR6_GMP72	20.000										3.723	85.5	113.5	
B_MR6_GMP73	20.000										0.010	84.8	0.3	
B_MR6_GMP76	0.400		0.038	0.024	0.008	0.005					0.054	85.0	85.4	
B_MR6_GMP77	20.000										3.682	85.7	113.3	
B_MR6_GMP78	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.3	
B_MR6_GMP79	20.000										3.596	85.8	111.6	
B_MR6_GMP80	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.6	
B_MR6_GMP81	20.000										3.532	86.0	110.6	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_MR6_GMP82	20.000										3.418	86.3	109.6	
B_MR6_GMT1	0.400		0.038	0.024	0.007	0.005					0.053	85.0	88.0	
B_MR6_GMT2	20.000										3.412	86.3	109.6	
B_MR6_GMT3	20.000										0.055	84.4	1.8	
B_MR6_GMT7	20.000										3.352	86.4	107.9	
B_MR6_GMT8	0.400		0.001	0.001	0.000	-					0.002	85.0	3.1	
B_MR6_GMT9	20.000										0.002	84.9	0.1	
B_MR6_GMT13	20.000										3.345	86.4	107.9	
B_MR6_GMT14	0.400		0.014	0.008	0.003	0.002					0.019	85.0	31.3	
B_MR6_GMT18	0.400		0.014	0.008	0.003	0.002					0.019	85.0	31.4	
B_MR6_GMT19	20.000										3.320	86.4	107.2	
B_MR6_GMT20	0.400		0.002	0.001	0.000	-					0.003	85.0	4.7	
B_MR6_GMT21	20.000										3.295	86.4	106.6	
B_MR6_GMT25	20.000										3.287	86.4	106.5	
B_MR6_GMT26	0.400		0.003	0.002	0.001	-					0.005	85.0	7.8	
B_MR6_GMT27	20.000										0.005	84.9	0.2	
B_MR6_GMT30	20.000										3.277	86.4	106.4	
B_MR6_GMT31	0.400		0.003	0.002	0.001	-					0.005	85.0	7.8	
B_MR6_GMT35	20.000										3.266	86.5	106.2	
B_MR6_GMT36	0.400		0.018	0.011	0.003	0.002					0.026	85.0	42.8	
B_MR6_GMT37	20.000										0.026	84.4	0.9	
B_MR6_GMT38	20.000										0.092	86.8	3.0	
B_MR6_GMT44	0.400		0.004	0.003	0.001	-					0.006	85.0	9.4	
B_MR6_GMT45	0.400		0.018	0.011	0.003	0.002					0.025	85.0	41.9	
B_MR6_GMT47	20.000										0.031	85.1	1.0	
B_MR6_GMT48	20.000										0.006	84.7	0.2	
B_MR6_GMT52	20.000										0.062	86.1	2.0	
B_MR6_GMT53	0.400		0.022	0.014	0.004	0.003					0.031	85.0	52.5	
B_MR6_GMT54	20.000										0.032	84.3	1.0	
B_MR6_GMT55	20.000										0.062	86.6	2.0	
B_MR6_GMT58	0.400		0.013	0.008	0.002	0.002					0.018	85.0	29.9	
B_MR6_GMT59	20.000										0.031	85.8	1.0	
B_MR6_GMT60	0.400		0.009	0.005	0.002	0.001					0.012	85.0	20.3	
B_MR6_GMT61	20.000										0.012	84.9	0.4	
B_MR6_GMT62	0.400		0.003	0.002	0.001	-					0.004	85.0	6.3	
B_MR6_GMT63	20.000										3.144	86.5	102.4	
B_MR6_GMT64	0.400		0.007	0.005	0.001	0.001					0.010	85.0	17.3	
B_MR6_GMT65	20.000										3.135	86.5	102.3	
B_MR6_GMT70	0.400		0.014	0.009	0.003	0.002					0.020	85.0	33.2	
B_MR6_GMT71	0.400		0.012	0.007	0.002	0.001					0.016	85.0	27.2	
B_MR6_GMT72	20.000										3.094	86.5	101.3	
B_MR6_GMT73	20.000										3.119	86.5	102.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_MR6_GMT74	0.400		0.022	0.013	0.004	0.002					0.030	85.0	51.1	
B_MR6_GMT75	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.5	
B_MR6_GMT76	20.000										3.036	86.6	99.7	
B_MR6_GMT77	20.000										3.072	86.5	100.8	
B_MR6_GMT80	0.400		0.040	0.025	0.007	0.005					0.056	85.0	94.4	
B_MR6_GMT81	20.000										2.999	86.6	98.7	
B_MR6_GMT82	0.400		0.002	0.001	0.000	-					0.003	85.0	4.7	
B_MR6_GMT83	20.000										2.934	86.7	96.8	
B_MR6_GMT84	20.000										0.003	84.9	0.1	
B_MR6_GMT87	0.400		0.035	0.022	0.006	0.004					0.049	85.0	83.3	
B_MR6_GMT88	20.000										2.925	86.7	96.7	
B_MR6_GMT91	0.400		0.015	0.009	0.003	0.002					0.021	85.0	34.9	
B_MR6_GMT92	20.000										2.868	86.7	95.1	
B_MR6_GMT96	0.400		0.006	0.004	0.001	0.001					0.009	85.0	14.3	
B_MR6_GMT97	20.000										2.840	86.7	94.4	
B_MR6_GMT98	20.000										0.029	86.7	1.0	
B_MR6_GMT99	20.000										0.009	84.8	0.3	
B_MR6_GMT102	0.400		0.015	0.009	0.003	0.002					0.021	85.0	35.3	
B_MR6_GMT103	20.000										0.021	84.5	0.7	
B_MR6_GMT109	0.400		0.002	0.001	0.000	-					0.003	85.0	4.8	
B_MR6_GMT110	0.400		0.023	0.014	0.004	0.003					0.032	85.0	55.0	
B_MR6_GMT111	20.000										2.805	86.7	93.4	
B_MR6_GMT112	20.000										2.765	86.8	92.3	
B_MR6_GMT113	20.000										0.003	84.9	0.1	
B_MR6_GMT116	0.400		0.021	0.013	0.004	0.002					0.029	85.0	50.3	
B_MR6_GMT117	20.000										2.756	86.8	92.2	
B_MR6_GMT123	0.400		0.001	0.000	0.000	-					0.001	85.0	1.6	
B_MR6_GMT124	20.000										0.001	85.0	-	
B_MR6_GMT125	20.000										0.019	86.9	0.6	
B_MR6_GMT126	0.400		0.013	0.008	0.002	0.001					0.018	85.0	31.0	
B_MR6_GMT127	20.000										0.018	84.1	0.6	
B_MR6_GMT128	20.000										2.722	86.8	91.2	
B_MR6_GMT130	20.000										1.826	85.6	62.4	
GH LEMITO	20.000										1.636	85.8	56.8	
GH MARISA	20.000										6.082	85.0	191.1	
GH MARISA1	20.000										1.388	87.4	43.6	
GH TILAMUTA	20.000										2.661	86.6	90.9	
GI MARISA	20.000										18.081	84.8	506.3	
LM1 V UJUNG	20.000													
LM3 V UJUNG	20.000										2.408	85.3	80.8	
LM4 V UJUNG	20.000												-	
LMT1 V UJUNG	20.000												-	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
LMT2 V UJUNG	20.000												-	
LO1 V UJUNG	20.000										2.408	85.3	80.8	
LO2 V UJUNG	20.000												-	
MR1 V UJUNG	20.000												-	
MR6 V UJUNG	20.000										3.430	86.3	109.6	
MR6 V UJUNG2	20.000										2.657	86.8	90.7	

* Indicates operating load of a bus exceeds the bus critical limit (100.0% of the Continuous Ampere rating).
# Indicates operating load of a bus exceeds the bus marginal limit (95.0% of the Continuous Ampere rating).

Branch Loading Summary Report

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
INC LM3	Cable	334.67	56.85	16.99					
INC_MR.6	Cable	334.67	90.91	27.16					
LM.1	Cable	334.67	28.65	8.56					
LM.3	Cable	334.67	147.83	44.17					
LM.4	Cable	334.67	15.47	4.62					
LM.5	Cable	334.67	191.12	57.11					
LMT.1	Cable	334.67	62.42	18.65					
LMT.2	Cable	334.67	28.96	8.65					
LO_1	Cable	334.67	57.08	17.06					
MR.1	Cable	334.67	60.57	18.10					
MR.3	Cable	303.26	190.86	62.93					
MR.4	Cable	334.67	126.09	37.67					
MR.6	Cable	334.67	129.71	38.76					
LM.2	Cable	334.67	0.55	0.16					
GI.MARISA	Transformer				30.000	18.942	63.1	18.081	60.3
G_LM1_GM_50	Transformer				0.100	0.040	40.2	0.039	39.5
G_LM1_GM_51	Transformer				0.025	0.025	99.7	0.024	95.3
G_LM1_GM_52	Transformer				0.100	0.047	47.1	0.046	46.1
G_LM1_GM_53	Transformer				0.100	0.003	2.9	0.003	2.9
G_LM1_GM_54	Transformer				0.050	0.050	99.6	0.048	95.3
G_LM1_GM_55	Transformer				0.100	0.032	32.2	0.032	31.7
G_LM1_GM_56	Transformer				0.050	0.026	51.0	0.025	49.9
G_LM1_GM_57	Transformer				0.050	0.025	49.0	0.024	48.0
*G_LM1_GM_58	Transformer				0.025	0.034	137.0	0.032	128.8
G_LM1_GM_59	Transformer				0.050	0.019	37.1	0.018	36.5
G_LM1_GM_60	Transformer				0.050	0.023	45.0	0.022	44.1
G_LM1_GM_61	Transformer				0.050	0.027	55.0	0.027	53.6
G_LM1_GM_62	Transformer				0.050	0.017	33.2	0.016	32.7
G_LM1_GM_63	Transformer				0.050	0.012	23.3	0.012	23.1
G_LM1_GM_64	Transformer				0.050	0.018	35.1	0.017	34.6
G_LM1_GM_65	Transformer				0.025	0.015	58.9	0.014	57.4
G_LM1_GM_66	Transformer				0.160	0.023	14.5	0.023	14.4
G_LM1_GM_67	Transformer				0.050	0.004	7.7	0.004	7.7

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LM1_GM_68	Transformer				0.025	0.009	35.1	0.009	34.6
G_LM1_GM_69	Transformer				0.100	0.028	28.2	0.028	27.9
G_LM1_GM_70	Transformer				0.025	0.023	91.3	0.022	87.6
G_LM1_GM_71	Transformer				0.050	0.025	51.0	0.025	49.8
G_LM1_GM_72	Transformer				0.050	0.029	58.9	0.029	57.4
G_LM1_GM_73	Transformer				0.100	0.032	32.2	0.032	31.8
G_LM1_GM_74	Transformer				0.050	0.021	41.1	0.020	40.4
G_LM1_GM_75	Transformer				0.100	0.017	16.5	0.016	16.4
G_LM1_GM_76	Transformer				0.050	0.013	25.3	0.013	25.0
G_LM1_GM_77	Transformer				0.100	0.055	55.0	0.054	53.7
G_LM1_GM_78	Transformer				0.100	0.005	4.8	0.005	4.8
G_LM1_GM_79	Transformer				0.100	0.005	4.8	0.005	4.8
G_LM1_GM_80	Transformer				0.050	0.034	67.0	0.033	65.1
G_LM1_GM_81	Transformer				0.050	0.034	67.0	0.033	65.1
G_LM1_GM_82	Transformer				0.050	0.009	17.5	0.009	17.3
G_LM1_GM_83	Transformer				0.050	0.025	49.0	0.024	48.0
G_LM1_GM_84	Transformer				0.050	0.034	67.0	0.033	65.0
G_LM1_GM_85	Transformer				0.050	0.034	67.0	0.033	65.0
G_LM1_GM_86	Transformer				0.050	0.014	27.3	0.013	26.9
G_LM1_GM_87	Transformer				0.025	0.010	39.1	0.010	38.4
G_LM1_GM_88	Transformer				0.050	0.034	67.0	0.033	65.0
G_LM1_GM_89	Transformer				0.050	0.007	13.6	0.007	13.5
G_LM3_GMC_155	Transformer				0.025	0.025	98.2	0.023	93.4
G_LM3_GMC_156	Transformer				0.050	0.024	48.2	0.024	47.1
G_LM3_GMC_157	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GMC_158	Transformer				0.025	0.025	98.1	0.023	93.3
*G_LM3_GMC_159	Transformer				0.015	0.025	168.0	0.023	153.9
G_LM3_GMC_160	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GMC_161	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GMC_162	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GMC_163	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GMC_164	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GMC_165	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GMC_166	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GMC_167	Transformer				0.025	0.025	98.1	0.023	93.3

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity (Amp)	Loading Amp		Capability (MVA)	Loading (input)		Loading (output)	
ID	Type			%		MVA	%	MVA	%
G_LM3_GMC_168	Transformer				0.050	0.024	48.2	0.023	47.0
G_LM3_GMC_169	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GMC_170	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GMC_171	Transformer				0.050	0.024	48.1	0.023	47.0
G_LM3_GMC_172	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GMC_173	Transformer				0.050	0.024	48.1	0.023	47.0
G_LM3_GMC_174	Transformer				0.050	0.024	48.1	0.023	47.0
G_LM3_GMC_175	Transformer				0.050	0.024	48.1	0.023	47.0
G_LM3_GMC_176	Transformer				0.050	0.024	48.1	0.023	47.0
G_LM3_GMC_177	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GMC_178	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GMI_106	Transformer				0.050	0.034	67.1	0.033	65.1
G_LM3_GMI_107	Transformer				0.050	0.034	67.0	0.033	65.1
G_LM3_GMI_108	Transformer				0.050	0.033	67.0	0.032	65.0
G_LM3_GMI_109	Transformer				0.050	0.033	66.9	0.032	64.9
G_LM3_GMI_110	Transformer				0.050	0.033	66.9	0.032	64.9
G_LM3_GMI_111	Transformer				0.050	0.033	66.8	0.032	64.8
G_LM3_GMI_112	Transformer				0.025	0.010	38.9	0.010	38.2
G_LM3_GMI_113	Transformer				0.050	0.033	66.6	0.032	64.6
G_LM3_GMI_114	Transformer				0.050	0.033	66.6	0.032	64.5
G_LM3_GMI_115	Transformer				0.050	0.033	66.5	0.032	64.5
G_LM3_GMI_116	Transformer				0.050	0.033	66.5	0.032	64.4
G_LM3_GMI_117	Transformer				0.050	0.033	66.4	0.032	64.4
G_LM3_GMI_118	Transformer				0.025	0.010	38.7	0.010	38.0
G_LM3_GMI_119	Transformer				0.050	0.033	66.4	0.032	64.3
G_LM3_GMK_120	Transformer				0.025	0.019	74.4	0.018	71.8
G_LM3_GMK_121	Transformer				0.050	0.033	66.3	0.032	64.2
G_LM3_GMK_122	Transformer				0.025	0.019	74.3	0.018	71.6
G_LM3_GMK_123	Transformer				0.050	0.024	48.4	0.024	47.3
G_LM3_GMK_124	Transformer				0.100	0.054	54.3	0.053	52.8
G_LM3_GMK_125	Transformer				0.050	0.033	66.1	0.032	64.0
G_LM3_GMK_126	Transformer				0.100	0.054	54.2	0.053	52.8
G_LM3_GMK_127	Transformer				0.050	0.033	66.1	0.032	64.0
G_LM3_GMK_128	Transformer				0.100	0.054	54.2	0.053	52.7
G_LM3_GMK_129	Transformer				0.100	0.054	54.2	0.053	52.7

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity	Loading		Capability	Loading (input)		Loading (output)	
ID	Type	(Amp)	Amp	%	(MVA)	MVA	%	MVA	%
G_LM3_GMK_130	Transformer				0.050	0.033	66.0	0.032	63.9
G_LM3_GMK_131	Transformer				0.100	0.054	54.1	0.053	52.7
G_LM3_GMK_132	Transformer				0.100	0.054	54.3	0.053	52.8
G_LM3_GMK_133	Transformer				0.025	0.019	74.2	0.018	71.5
G_LM3_GMK_134	Transformer				0.050	0.033	66.2	0.032	64.0
G_LM3_GMK_135	Transformer				0.025	0.019	74.1	0.018	71.5
G_LM3_GMK_136	Transformer				0.100	0.054	54.3	0.053	52.8
G_LM3_GMK_137	Transformer				0.025	0.019	74.1	0.018	71.5
G_LM3_GMK_138	Transformer				0.100	0.054	54.2	0.053	52.8
G_LM3_GMK_139	Transformer				0.100	0.054	54.2	0.053	52.7
G_LM3_GMK_140	Transformer				0.025	0.019	74.0	0.018	71.4
G_LM3_GMK_141	Transformer				0.100	0.054	54.2	0.053	52.7
G_LM3_GMK_142	Transformer				0.025	0.019	74.0	0.018	71.4
G_LM3_GMK_143	Transformer				0.050	0.033	66.1	0.032	63.9
G_LM3_GMK_144	Transformer				0.050	0.033	66.1	0.032	63.9
G_LM3_GMK_145	Transformer				0.025	0.019	74.0	0.018	71.3
G_LM3_GMK_146	Transformer				0.100	0.054	54.1	0.053	52.7
G_LM3_GMK_147	Transformer				0.025	0.018	73.9	0.018	71.2
G_LM3_GMK_148	Transformer				0.100	0.054	54.1	0.053	52.6
G_LM3_GMK_149	Transformer				0.050	0.033	65.9	0.032	63.7
G_LM3_GMK_150	Transformer				0.050	0.033	65.9	0.032	63.7
G_LM3_GMK_151	Transformer				0.050	0.033	65.8	0.032	63.7
G_LM3_GMK_152	Transformer				0.050	0.033	65.8	0.032	63.6
G_LM3_GMK_153	Transformer				0.050	0.033	65.8	0.032	63.6
G_LM3_GMK_154	Transformer				0.100	0.054	54.2	0.053	52.8
G_LM3_GML_179	Transformer				0.100	0.024	23.8	0.024	23.5
G_LM3_GML_180	Transformer				0.100	0.024	23.8	0.024	23.5
G_LM3_GML_181	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_182	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_183	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_184	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_185	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_186	Transformer				0.025	0.024	97.7	0.023	92.8
G_LM3_GML_187	Transformer				0.050	0.024	47.9	0.023	46.7
G_LM3_GML_188	Transformer				0.050	0.024	47.9	0.023	46.7

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LM3_GML_189	Transformer				0.050	0.024	47.9	0.023	46.7
G_LM3_GML_190	Transformer				0.050	0.024	47.9	0.023	46.7
G_LM3_GML_191	Transformer				0.050	0.024	47.9	0.023	46.7
G_LM3_GML_192	Transformer				0.050	0.024	47.8	0.023	46.6
G_LM3_GML_193	Transformer				0.050	0.024	47.8	0.023	46.6
G_LM3_GML_194	Transformer				0.025	0.024	97.5	0.023	92.5
G_LM3_GML_195	Transformer				0.100	0.024	23.7	0.023	23.4
G_LM3_GML_196	Transformer				0.160	0.024	14.8	0.023	14.6
G_LM3_GML_197	Transformer				0.100	0.024	23.7	0.023	23.4
G_LM3_GML_198	Transformer				0.100	0.024	23.7	0.023	23.4
G_LM3_GML_199	Transformer				0.050	0.024	47.8	0.023	46.6
G_LM3_GML_200	Transformer				0.050	0.024	47.7	0.023	46.5
G_LM3_GML_201	Transformer				0.050	0.024	47.7	0.023	46.5
G_LM3_GML_202	Transformer				0.050	0.024	47.7	0.023	46.5
G_LM3_GML_203	Transformer				0.050	0.024	47.7	0.023	46.5
G_LM3_GML_204	Transformer				0.100	0.024	23.6	0.023	23.3
G_LM3_GML_205	Transformer				0.100	0.024	23.6	0.023	23.3
G_LM3_GML_206	Transformer				0.025	0.024	97.3	0.023	92.2
G_LM3_GML_207	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_208	Transformer				0.025	0.024	97.2	0.023	92.1
G_LM3_GML_209	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_210	Transformer				0.100	0.024	23.6	0.023	23.3
G_LM3_GML_211	Transformer				0.100	0.024	23.6	0.023	23.3
G_LM3_GML_212	Transformer				0.100	0.024	23.6	0.023	23.3
G_LM3_GML_213	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_214	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_215	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_216	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_217	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_218	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_219	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_220	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_221	Transformer				0.025	0.024	97.2	0.023	92.0
G_LM3_GML_222	Transformer				0.025	0.024	97.2	0.023	92.0
G_LM3_GML_223	Transformer				0.100	0.024	23.6	0.023	23.3

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LM3_GML_224	Transformer				0.050	0.024	47.6	0.023	46.4
G_LM3_GML_225	Transformer				0.050	0.024	47.6	0.023	46.3
G_LM3_GML_226	Transformer				0.025	0.024	97.1	0.023	92.0
G_LM3_GML_227	Transformer				0.100	0.024	23.6	0.023	23.2
G_LM3_GML_228	Transformer				0.050	0.024	47.6	0.023	46.3
G_LM3_GML_229	Transformer				0.050	0.024	47.6	0.023	46.3
G_LM3_GML_230	Transformer				0.050	0.024	47.6	0.023	46.3
G_LM3_GML_231	Transformer				0.050	0.024	47.6	0.023	46.3
G_LM3_GML_232	Transformer				0.050	0.024	47.6	0.023	46.3
*G_LM3_GML_233	Transformer				0.015	0.025	167.0	0.023	151.6
*G_LM3_GML_234	Transformer				0.015	0.025	167.0	0.023	151.6
G_LM3_GML_235	Transformer				0.100	0.024	23.5	0.023	23.2
G_LM3_GML_236	Transformer				0.100	0.024	23.5	0.023	23.2
G_LM3_GML_237	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_238	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_239	Transformer				0.025	0.024	97.1	0.023	91.9
G_LM3_GML_240	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_241	Transformer				0.050	0.024	47.5	0.023	46.3
*G_LM3_GML_242	Transformer				0.015	0.025	167.0	0.023	151.5
G_LM3_GML_243	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_244	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_245	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_246	Transformer				0.100	0.024	23.5	0.023	23.2
G_LM3_GML_247	Transformer				0.100	0.024	23.5	0.023	23.2
G_LM3_GML_248	Transformer				0.025	0.024	97.1	0.023	91.8
G_LM3_GML_249	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_250	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_251	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_252	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_253	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_254	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_255	Transformer				0.100	0.024	23.5	0.023	23.2
G_LM3_GML_256	Transformer				0.025	0.019	77.0	0.018	73.7
G_LM3_GML_257	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_258	Transformer				0.100	0.024	23.5	0.023	23.2

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LM3_GML_259	Transformer				0.025	0.024	97.0	0.023	91.8
G_LM3_GML_260	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_261	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_262	Transformer				0.050	0.024	47.5	0.023	46.3
G_LM3_GML_263	Transformer				0.100	0.024	23.5	0.023	23.2
G_LM3_GML_264	Transformer				0.050	0.024	47.5	0.023	46.2
G_LM3_GML_265	Transformer				0.050	0.024	47.5	0.023	46.2
G_LM3_GML_266	Transformer				0.050	0.024	47.5	0.023	46.2
G_LM3_GML_267	Transformer				0.050	0.024	47.5	0.023	46.2
G_LM4_GM_90	Transformer				0.160	0.007	4.2	0.007	4.2
G_LM4_GM_91	Transformer				0.100	0.055	55.1	0.054	53.8
G_LM4_GM_92	Transformer				0.050	0.050	99.7	0.048	95.4
G_LM4_GM_93	Transformer				0.050	0.034	67.1	0.033	65.2
G_LM4_GM_94	Transformer				0.100	0.003	2.9	0.003	2.9
G_LM4_GM_95	Transformer				0.100	0.055	55.1	0.054	53.8
G_LM4_GM_96	Transformer				0.050	0.042	83.4	0.040	80.3
G_LM4_GM_97	Transformer				0.100	0.013	12.6	0.013	12.6
G_LM4_GM_98	Transformer				0.100	0.014	13.6	0.014	13.5
G_LM4_GM_99	Transformer				0.050	0.005	9.7	0.005	9.7
G_LM4_GM_100	Transformer				0.050	0.034	67.1	0.033	65.2
G_LM4_GM_101	Transformer				0.160	0.015	9.1	0.015	9.1
G_LM4_GM_102	Transformer				0.100	0.055	55.1	0.054	53.8
G_LM4_GM_103	Transformer				0.050	0.034	67.1	0.033	65.2
G_LM4_GM_104	Transformer				0.050	0.034	67.1	0.033	65.2
G_LM4_GM_105	Transformer				0.100	0.055	55.1	0.054	53.8
G_LMT1_GMT031	Transformer				0.025	0.005	18.9	0.005	18.7
G_LMT1_GMT032	Transformer				0.025	0.017	69.4	0.017	66.9
*G_LMT1_GMT033	Transformer				0.050	0.065	130.5	0.061	121.4
*G_LMT1_GMT034	Transformer				0.050	0.078	155.9	0.071	143.0
G_LMT1_GMT035	Transformer				0.050	0.033	65.4	0.032	63.2
G_LMT1_GMT036	Transformer				0.100	0.047	46.8	0.046	45.7
G_LMT1_GMT038	Transformer				0.100	0.064	64.5	0.062	62.3
G_LMT1_GMT039	Transformer				0.050	0.042	83.4	0.040	79.7
G_LMT1_GMT040	Transformer				0.100	0.060	59.6	0.058	57.7
G_LMT1_GMT041	Transformer				0.100	0.066	66.5	0.064	64.2

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LMT1_GMT042	Transformer				0.100	0.053	52.7	0.051	51.3
G_LMT1_GMT043	Transformer				0.050	0.035	69.5	0.033	66.9
G_LMT1_GMT044	Transformer				0.160	0.086	53.9	0.084	52.4
G_LMT1_GMT045	Transformer				0.100	0.040	40.0	0.039	39.2
*G_LMT1_GMT046	Transformer				0.050	0.053	105.7	0.050	99.8
G_LMT1_GMT047	Transformer				0.200	0.019	9.4	0.019	9.4
G_LMT1_GMT048	Transformer				0.100	0.035	35.2	0.035	34.6
G_LMT1_GMT049	Transformer				0.100	0.018	18.0	0.018	17.8
G_LMT1_GMT050	Transformer				0.100	0.069	69.4	0.067	66.9
G_LMT1_GMT051	Transformer				0.100	0.037	37.1	0.036	36.4
G_LMT1_GMT052	Transformer				0.050	0.030	59.5	0.029	57.7
G_LMT1_GMT053	Transformer				0.050	0.012	24.6	0.012	24.3
G_LMT1_GMT054	Transformer				0.050	0.019	38.1	0.019	37.3
G_LMT1_GMT055	Transformer				0.050	0.006	11.3	0.006	11.2
G_LMT1_GMT056	Transformer				0.100	0.036	36.2	0.035	35.5
G_LMT1_GMT057	Transformer				0.025	0.017	69.4	0.017	66.9
G_LMT1_GMT058	Transformer				0.160	0.055	34.5	0.054	33.8
G_LMT1_GMT059	Transformer				0.025	0.005	18.9	0.005	18.7
G_LMT1_GMT060	Transformer				0.050	0.017	34.2	0.017	33.6
G_LMT1_GMT061	Transformer				0.100	0.079	79.5	0.076	76.2
G_LMT1_GMT062	Transformer				0.050	0.019	38.2	0.019	37.4
G_LMT1_GMT063	Transformer				0.100	0.069	68.5	0.066	66.1
G_LMT1_GMT064	Transformer				0.250	0.006	2.3	0.006	2.3
G_LMT1_GMT065	Transformer				0.050	0.029	57.7	0.028	56.0
G_LMT1_GMT066	Transformer				0.050	0.015	30.5	0.015	30.0
G_LMT1_GMT067	Transformer				0.100	0.085	84.6	0.081	80.9
G_LMT1_GMT068	Transformer				0.050	0.035	69.6	0.034	67.1
G_LMT1_GMT069	Transformer				0.050	0.009	19.0	0.009	18.8
G_LMT1_GMT070	Transformer				0.100	0.021	20.9	0.021	20.7
G_LMT1_GMT071	Transformer				0.050	0.004	7.6	0.004	7.5
G_LMT1_GMT072	Transformer				0.050	0.031	61.7	0.030	59.7
G_LMT1_GMT073	Transformer				0.050	0.003	5.7	0.003	5.6
G_LMT1_GMT074	Transformer				0.050	0.028	55.8	0.027	54.2
G_LMT1_GMT075	Transformer				0.100	0.033	33.4	0.033	32.8
G_LMT1_GMT076	Transformer				0.100	0.054	53.8	0.052	52.3

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LMT1_GMT077	Transformer				0.100	0.010	10.4	0.010	10.3
G_LMT1_GMT079	Transformer				0.050	0.009	17.1	0.008	16.9
G_LMT1_GMT080	Transformer				0.100	0.045	45.0	0.044	44.0
G_LMT1_GMT081	Transformer				0.050	0.030	59.7	0.029	57.9
G_LMT1_GMT123	Transformer				0.100	0.054	53.7	0.052	52.2
G_LMT1_GMT132	Transformer				0.100	0.054	53.8	0.052	52.3
G_LMT2_GMT081	Transformer				0.050	0.030	59.7	0.029	57.9
G_LMT2_GMT082	Transformer				0.100	0.054	53.8	0.052	52.3
G_LMT2_GMT083	Transformer				0.025	0.005	19.0	0.005	18.8
G_LMT2_GMT084	Transformer				0.050	0.038	75.5	0.036	72.5
G_LMT2_GMT085	Transformer				0.050	0.033	65.6	0.032	63.3
G_LMT2_GMT086	Transformer				0.100	0.054	53.7	0.052	52.2
G_LMT2_GMT087	Transformer				0.050	0.042	83.5	0.040	79.8
G_LMT2_GMT088	Transformer				0.050	0.011	22.7	0.011	22.5
G_LMT2_GMT089	Transformer				0.050	0.029	57.6	0.028	55.9
G_LMT2_GMT090	Transformer				0.025	0.004	15.1	0.004	15.0
G_LMT2_GMT091	Transformer				0.025	0.019	77.4	0.019	74.2
G_LMT2_GMT092	Transformer				0.050	0.016	32.3	0.016	31.8
G_LMT2_GMT093	Transformer				0.050	0.031	61.5	0.030	59.5
G_LMT2_GMT094	Transformer				0.025	0.017	69.4	0.017	66.8
G_LMT2_GMT095	Transformer				0.050	0.006	11.3	0.006	11.2
G_LMT2_GMT096	Transformer				0.050	0.006	11.3	0.006	11.2
G_LMT2_GMT097	Transformer				0.025	0.003	11.3	0.003	11.2
G_LMT2_GMT098	Transformer				0.025	0.005	18.9	0.005	18.7
G_LMT2_GMT099	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT100	Transformer				0.100	0.019	18.9	0.019	18.7
G_LMT2_GMT101	Transformer				0.050	0.033	65.4	0.032	63.1
G_LMT2_GMT102	Transformer				0.050	0.008	17.0	0.008	16.8
G_LMT2_GMT103	Transformer				0.050	0.003	5.6	0.003	5.6
G_LMT2_GMT104	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT105	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT106	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT107	Transformer				0.100	0.008	7.5	0.007	7.5
G_LMT2_GMT108	Transformer				0.050	0.014	28.4	0.014	28.0
G_LMT2_GMT109	Transformer				0.050	0.015	30.3	0.015	29.8

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LMT2_GMT110	Transformer				0.050	0.009	18.9	0.009	18.7
G_LMT2_GMT111	Transformer				0.025	0.003	11.3	0.003	11.2
G_LMT2_GMT112	Transformer				0.050	0.009	18.9	0.009	18.7
G_LMT2_GMT113	Transformer				0.100	0.015	15.1	0.015	14.9
G_LMT2_GMT114	Transformer				0.050	0.002	3.7	0.002	3.7
G_LMT2_GMT116	Transformer				0.050	0.010	20.8	0.010	20.5
G_LMT2_GMT117	Transformer				0.050	0.033	65.3	0.031	63.0
G_LMT2_GMT118	Transformer				0.050	0.001	1.9	0.001	1.9
G_LMT2_GMT119	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT120	Transformer				0.100	0.037	37.0	0.036	36.3
G_LMT2_GMT121	Transformer				0.050	0.027	53.5	0.026	51.9
G_LMT2_GMT122	Transformer				0.050	0.029	57.4	0.028	55.6
G_LMT2_GMT123	Transformer				0.050	0.030	59.4	0.029	57.4
G_LMT2_GMT124	Transformer				0.050	0.027	53.5	0.026	51.9
G_LMT2_GMT125	Transformer				0.050	0.003	5.6	0.003	5.6
G_LMT2_GMT126	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT127	Transformer				0.100	0.029	29.3	0.029	28.9
G_LMT2_GMT128	Transformer				0.025	0.002	7.5	0.002	7.5
G_LMT2_GMT129	Transformer				0.050	0.008	15.0	0.007	14.9
G_LMT2_GMT130	Transformer				0.050	0.002	3.7	0.002	3.7
G_LMT2_GMT131	Transformer				0.050	0.033	65.2	0.031	62.9
G_LMT2_GMT135	Transformer				0.050	0.033	65.4	0.032	63.1
G_MR1_GMP_1	Transformer				0.050	0.036	71.8	0.035	70.0
G_MR1_GMP_2_	Transformer				0.025	0.021	82.2	0.020	79.8
G_MR1_GMP_3	Transformer				0.050	0.036	71.7	0.035	69.9
G_MR1_GMP_4	Transformer				0.050	0.041	82.0	0.040	79.6
G_MR1_GMP_5	Transformer				0.100	0.082	81.9	0.080	79.5
G_MR1_GMP_6	Transformer				0.200	0.153	76.6	0.149	74.5
G_MR1_GMP_7	Transformer				0.050	0.041	81.7	0.040	79.3
G_MR1_GMP_8	Transformer				0.050	0.041	81.6	0.040	79.2
G_MR1_GMP_9	Transformer				0.050	0.041	81.6	0.040	79.1
G_MR1_GMP_10	Transformer				0.100	0.081	81.5	0.079	79.1
G_MR1_GMP_11	Transformer				0.050	0.041	81.4	0.039	79.0
G_MR1_GMP_12	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_13	Transformer				0.100	0.081	81.3	0.079	78.9

CKT / Branch		Busway / Cable & Reactor			Transformer				
					Capability (MVA)	Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%		MVA	%	MVA	%
G_MR1_GMP_14	Transformer				0.100	0.081	81.3	0.079	78.8
*G_MR1_GMP_15	Transformer				0.025	0.026	102.1	0.025	98.3
G_MR1_GMP_16	Transformer				0.100	0.081	81.3	0.079	78.8
G_MR1_GMP_17	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_18	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_19	Transformer				0.050	0.041	81.2	0.039	78.7
G_MR1_GMP_20_	Transformer				0.050	0.041	81.2	0.039	78.7
G_MR1_GMP_21	Transformer				0.050	0.041	81.2	0.039	78.7
G_MR1_GMP_22	Transformer				0.050	0.041	81.2	0.039	78.7
G_MR1_GMP_23	Transformer				0.050	0.041	81.2	0.039	78.7
G_MR1_GMP_24	Transformer				0.100	0.081	81.2	0.079	78.7
G_MR1_GMP_25	Transformer				0.050	0.041	81.2	0.039	78.7
G_MR1_GMP_26	Transformer				0.050	0.041	81.2	0.039	78.7
G_MR1_GMP_27	Transformer				0.100	0.081	81.3	0.079	78.9
G_MR1_GMP_28	Transformer				0.100	0.081	81.3	0.079	78.9
G_MR1_GMP_29	Transformer				0.100	0.081	81.3	0.079	78.9
G_MR1_GMP_30	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_31	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_32	Transformer				0.160	0.122	76.1	0.118	74.0
G_MR1_GMP_33_	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_34	Transformer				0.050	0.041	81.3	0.039	78.8
G_MR1_GMP_35	Transformer				0.050	0.041	81.3	0.039	78.8
G_MR1_GMP_36	Transformer				0.050	0.041	81.3	0.039	78.8
G_MR1_GMP_37	Transformer				0.025	0.020	81.3	0.020	78.8
G_MR1_GMP_38	Transformer				0.050	0.041	81.3	0.039	78.8
G_MR1_GMP_39	Transformer				0.100	0.081	81.3	0.079	78.8
G_MR4_GM02	Transformer				3.000	2.155	71.8	2.101	70.0
G_MR4_GM03	Transformer				0.100	0.046	45.6	0.045	44.9
G_MR4_GM04	Transformer				0.050	0.014	28.3	0.014	28.1
G_MR4_GM05	Transformer				0.100	0.015	14.9	0.015	14.6
G_MR4_GM06	Transformer				0.050	0.021	41.5	0.020	40.3
G_MR4_GM07	Transformer				0.050	0.032	63.8	0.030	61.0
G_MR4_GM08	Transformer				0.400	0.001	0.3	0.001	0.3
G_MR4_GM09	Transformer				0.100	0.095	95.4	0.089	89.1
G_MR4_GM10	Transformer				0.100	0.019	18.9	0.019	18.8

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_MR4_GM11	Transformer				0.100	0.073	73.0	0.066	65.5
G_MR4_GM12	Transformer				0.050	0.022	44.1	0.021	42.7
G_MR4_GM13	Transformer				0.200	0.124	62.1	0.113	56.6
G_MR4_GM14	Transformer				0.160	0.089	55.3	0.083	51.8
G_MR4_GM15	Transformer				0.100	0.071	70.9	0.064	63.6
G_MR4_GM16	Transformer				0.025	0.005	21.3	0.005	21.2
G_MR4_GM17	Transformer				0.100	0.042	42.0	0.041	40.7
G_MR4_GM18	Transformer				0.100	0.021	20.7	0.020	20.4
G_MR4_GM19	Transformer				0.160	0.116	72.7	0.111	69.6
G_MR4_GM20	Transformer				0.160	0.078	48.6	0.073	45.8
G_MR4_GM21	Transformer				0.100	0.060	60.0	0.057	57.4
G_MR4_GM22	Transformer				0.050	0.025	50.2	0.025	49.7
G_MR4_GM23	Transformer				0.100	0.076	75.6	0.067	67.4
G_MR4_GM24	Transformer				0.100	0.063	62.8	0.060	60.0
G_MR4_GM25	Transformer				0.100	0.046	45.8	0.045	45.1
G_MR4_GM26	Transformer				0.100	0.035	34.9	0.034	34.1
G_MR4_GM27	Transformer				0.160	0.091	57.0	0.085	53.3
G_MR4_GM28	Transformer				0.100	0.025	24.8	0.024	24.4
G_MR4_GM29	Transformer				0.100	0.039	38.6	0.038	37.5
G_MR4_GM30	Transformer				0.160	0.081	50.6	0.076	47.6
G_MR4_GM31	Transformer				0.100	0.034	34.1	0.034	33.7
G_MR4_GM32	Transformer				0.025	0.005	20.6	0.005	20.5
G_MR4_GM33	Transformer				0.025	0.020	78.1	0.019	77.6
G_MR4_GM34	Transformer				0.100	0.083	83.0	0.081	80.6
G_MR4_GM35	Transformer				0.160	0.101	63.3	0.094	58.7
G_MR4_GM36	Transformer				0.100	0.006	6.4	0.006	6.4
G_MR4_GM37	Transformer				0.050	0.027	54.7	0.027	54.2
G_MR4_GM38	Transformer				0.100	0.065	65.0	0.062	62.0
G_MR4_GM39	Transformer				0.100	0.060	60.0	0.057	57.4
G_MR4_GM40	Transformer				0.100	0.065	65.1	0.064	63.6
G_MR4_GM41	Transformer				0.100	0.071	71.5	0.070	69.6
G_MR4_GM42	Transformer				0.100	0.021	20.7	0.021	20.5
G_MR4_GM43	Transformer				0.050	0.016	32.2	0.016	31.9
*G_MR4_GM44	Transformer				0.050	0.085	169.0	0.082	164.0
G_MR4_GM45	Transformer				0.100	0.022	21.9	0.022	21.5

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity	Loading		Capability	Loading (input)		Loading (output)	
ID	Type	(Amp)	Amp	%	(MVA)	MVA	%	MVA	%
*G_MR4_GM46	Transformer				0.050	0.053	105.3	0.052	103.4
G_MR4_GM47	Transformer				0.100	0.062	61.6	0.059	59.0
G_MR4_GM48	Transformer				0.100	0.045	44.7	0.044	44.0
G_MR4_GM49	Transformer				0.100	0.029	29.1	0.029	28.8
G_MR4_GMP01	Transformer				0.050	0.038	75.2	0.037	73.2
G_MR6_GMP040	Transformer				0.025	0.019	77.9	0.019	75.8
G_MR6_GMP041	Transformer				0.050	0.035	69.3	0.034	67.6
G_MR6_GMP042	Transformer				0.050	0.025	50.6	0.025	49.7
G_MR6_GMP043	Transformer				0.100	0.015	15.0	0.015	14.9
G_MR6_GMP044	Transformer				0.100	0.049	49.2	0.048	48.3
G_MR6_GMP045	Transformer				0.100	0.056	56.1	0.055	54.9
G_MR6_GMP046	Transformer				0.050	0.029	58.2	0.028	56.9
G_MR6_GMP047	Transformer				0.050	0.031	62.2	0.030	60.7
G_MR6_GMP048	Transformer				0.200	0.144	72.0	0.140	70.0
G_MR6_GMP049	Transformer				0.050	0.012	23.9	0.012	23.7
G_MR6_GMP050	Transformer				0.050	0.007	13.9	0.007	13.8
G_MR6_GMP051	Transformer				0.050	0.023	46.0	0.023	45.2
G_MR6_GMP052	Transformer				0.050	0.004	7.9	0.004	7.9
G_MR6_GMP053	Transformer				0.050	0.007	13.9	0.007	13.8
G_MR6_GMP054	Transformer				0.100	0.017	16.8	0.017	16.7
G_MR6_GMP055	Transformer				0.050	0.034	68.2	0.033	66.4
G_MR6_GMP056	Transformer				0.100	0.061	60.9	0.059	59.4
G_MR6_GMP057	Transformer				0.050	0.010	19.7	0.010	19.5
G_MR6_GMP058	Transformer				0.100	0.055	55.5	0.054	54.2
G_MR6_GMP059	Transformer				0.050	0.034	67.4	0.033	65.5
G_MR6_GMP060	Transformer				0.050	0.034	67.2	0.033	65.3
G_MR6_GMP061	Transformer				0.100	0.055	54.8	0.053	53.4
G_MR6_GMT001	Transformer				0.025	0.002	7.7	0.002	7.7
G_MR6_GMT002	Transformer				0.050	0.019	38.9	0.019	38.2
G_MR6_GMT003	Transformer				0.050	0.019	38.9	0.019	38.2
G_MR6_GMT004	Transformer				0.100	0.003	2.9	0.003	2.9
G_MR6_GMT005	Transformer				0.100	0.005	4.8	0.005	4.8
G_MR6_GMT006	Transformer				0.025	0.005	19.3	0.005	19.1
G_MR6_GMT007	Transformer				0.050	0.026	52.6	0.026	51.3
*G_MR6_GMT008	Transformer				0.025	0.026	103.0	0.025	98.1

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_MR6_GMT009	Transformer				0.025	0.006	23.1	0.006	22.9
G_MR6_GMT010	Transformer				0.050	0.032	64.5	0.031	62.6
G_MR6_GMT011	Transformer				0.050	0.018	36.8	0.018	36.2
G_MR6_GMT012	Transformer				0.100	0.012	12.5	0.012	12.4
G_MR6_GMT013	Transformer				0.025	0.004	15.4	0.004	15.3
G_MR6_GMT015	Transformer				0.050	0.011	21.2	0.010	21.0
G_MR6_GMT016	Transformer				0.050	0.020	40.7	0.020	39.9
G_MR6_GMT017	Transformer				0.025	0.017	66.4	0.016	64.3
G_MR6_GMT018	Transformer				0.050	0.031	62.4	0.030	60.5
G_MR6_GMT020	Transformer				0.100	0.057	57.4	0.056	55.8
G_MR6_GMT021	Transformer				0.050	0.003	5.7	0.003	5.7
G_MR6_GMT022	Transformer				0.100	0.050	50.4	0.049	49.1
G_MR6_GMT023	Transformer				0.100	0.021	21.1	0.021	20.9
G_MR6_GMT024	Transformer				0.050	0.009	17.2	0.009	17.1
G_MR6_GMT025	Transformer				0.050	0.021	42.4	0.021	41.6
G_MR6_GMT026	Transformer				0.050	0.033	66.1	0.032	64.0
G_MR6_GMT027	Transformer				0.050	0.003	5.7	0.003	5.7
G_MR6_GMT028	Transformer				0.050	0.030	60.1	0.029	58.3
G_MR6_GMT029	Transformer				0.025	0.018	74.0	0.018	71.3
G_MR6_GMT030	Transformer				0.025	0.001	3.8	0.001	3.8
G_MR6_GMT134	Transformer				0.050	0.033	66.3	0.032	64.3

* Indicates a branch with operating load exceeding the branch capability.

Branch Losses Summary Report

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM1_GM_50	-0.034	-0.021	0.034	0.021	0.4	0.6	90.1	91.7	1.60
G_LM1_GM_51	-0.020	-0.013	0.021	0.014	0.7	1.0	87.6	91.6	3.98
G_LM1_GM_52	-0.039	-0.024	0.040	0.025	0.6	0.9	89.6	91.5	1.88
G_LM1_GM_53	-0.002	-0.002	0.002	0.002	0.0	0.0	91.3	91.4	0.12
G_LM1_GM_54	-0.040	-0.025	0.042	0.027	1.3	2.0	87.4	91.4	3.99
G_LM1_GM_55	-0.027	-0.017	0.027	0.017	0.3	0.4	90.0	91.3	1.29
G_LM1_GM_56	-0.021	-0.013	0.022	0.014	0.3	0.5	89.2	91.3	2.04
G_LM1_GM_57	-0.020	-0.013	0.021	0.013	0.3	0.5	89.3	91.2	1.96
G_LM1_GM_58	-0.027	-0.017	0.029	0.019	1.3	1.9	85.7	91.2	5.50
G_LM1_GM_59	0.016	0.010	-0.016	-0.010	0.2	0.3	91.1	89.6	1.48
G_LM1_GM_60	0.019	0.012	-0.019	-0.012	0.3	0.4	91.1	89.2	1.80
G_LM1_GM_61	0.023	0.015	-0.023	-0.014	0.4	0.6	91.0	88.8	2.20
G_LM1_GM_62	0.014	0.009	-0.014	-0.009	0.1	0.2	91.0	89.7	1.33
G_LM1_GM_63	0.010	0.006	-0.010	-0.006	0.1	0.1	91.0	90.0	0.93
G_LM1_GM_64	0.015	0.009	-0.015	-0.009	0.2	0.2	91.0	89.5	1.41
G_LM1_GM_65	0.012	0.008	-0.012	-0.008	0.2	0.3	90.9	88.6	2.37
G_LM1_GM_66	0.020	0.012	-0.020	-0.012	0.1	0.1	90.9	90.4	0.58
G_LM1_GM_67	0.003	0.002	-0.003	-0.002	0.0	0.0	90.9	90.6	0.31
G_LM1_GM_68	-0.007	-0.005	0.007	0.005	0.1	0.1	89.5	90.9	1.41
G_LM1_GM_69	0.024	0.015	-0.024	-0.015	0.2	0.3	90.9	89.8	1.13
G_LM1_GM_70	-0.019	-0.012	0.019	0.012	0.6	0.8	87.2	90.9	3.67
G_LM1_GM_71	-0.021	-0.013	0.022	0.014	0.3	0.5	88.9	90.9	2.04
G_LM1_GM_72	-0.024	-0.015	0.025	0.016	0.5	0.7	88.5	90.9	2.37
G_LM1_GM_73	0.027	0.017	-0.027	-0.017	0.3	0.4	91.5	90.2	1.28
G_LM1_GM_74	0.017	0.011	-0.017	-0.011	0.2	0.3	91.5	89.8	1.64
G_LM1_GM_75	0.014	0.009	-0.014	-0.009	0.1	0.1	91.4	90.8	0.66
G_LM1_GM_76	0.011	0.007	-0.011	-0.007	0.1	0.1	91.4	90.4	1.01
G_LM1_GM_77	0.046	0.029	-0.046	-0.028	0.8	1.2	91.3	89.1	2.20
G_LM1_GM_78	0.004	0.003	-0.004	-0.003	0.0	0.0	91.3	91.1	0.19
G_LM1_GM_79	0.004	0.003	-0.004	-0.003	0.0	0.0	91.3	91.1	0.19
G_LM1_GM_80	0.028	0.018	-0.028	-0.017	0.6	0.9	91.2	88.5	2.68
G_LM1_GM_81	0.028	0.018	-0.028	-0.017	0.6	0.9	91.2	88.5	2.68
G_LM1_GM_82	0.007	0.005	-0.007	-0.005	0.0	0.1	91.2	90.5	0.70
G_LM1_GM_83	0.021	0.013	-0.020	-0.013	0.3	0.5	91.1	89.2	1.96

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM1_GM_84	0.028	0.018	-0.028	-0.017	0.6	0.9	91.1	88.4	2.68
G_LM1_GM_85	0.028	0.018	-0.028	-0.017	0.6	0.9	91.1	88.4	2.68
G_LM1_GM_86	0.012	0.007	-0.011	-0.007	0.1	0.1	91.1	90.0	1.09
G_LM1_GM_87	0.008	0.005	-0.008	-0.005	0.1	0.2	91.1	89.5	1.56
G_LM1_GM_88	-0.028	-0.017	0.028	0.018	0.6	0.9	88.4	91.1	2.69
G_LM1_GM_89	-0.006	-0.004	0.006	0.004	0.0	0.0	90.5	91.1	0.54
G_LM3_GMC_155	0.021	0.013	-0.020	-0.012	0.7	1.1	86.1	81.9	4.17
G_LM3_GMC_156	0.020	0.013	-0.020	-0.012	0.3	0.5	86.0	84.0	2.04
G_LM3_GMC_157	0.020	0.013	-0.020	-0.012	0.2	0.3	85.9	84.9	1.01
G_LM3_GMC_158	0.021	0.013	-0.020	-0.012	0.7	1.1	85.8	81.6	4.18
G_LM3_GMC_159	0.021	0.014	-0.020	-0.012	1.3	1.9	85.8	78.6	7.19
G_LM3_GMC_160	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.7	2.05
G_LM3_GMC_161	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.7	2.05
G_LM3_GMC_162	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.7	2.05
G_LM3_GMC_163	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.7	2.05
G_LM3_GMC_164	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.7	2.05
G_LM3_GMC_165	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.8	2.05
G_LM3_GMC_166	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.8	2.05
G_LM3_GMC_167	0.021	0.013	-0.020	-0.012	0.7	1.1	85.8	81.6	4.18
G_LM3_GMC_168	0.020	0.013	-0.020	-0.012	0.4	0.5	85.7	83.7	2.05
G_LM3_GMC_169	0.020	0.013	-0.020	-0.012	0.2	0.3	85.7	84.7	1.02
G_LM3_GMC_170	0.020	0.013	-0.020	-0.012	0.2	0.3	85.7	84.7	1.02
G_LM3_GMC_171	0.020	0.013	-0.020	-0.012	0.4	0.5	85.6	83.6	2.05
G_LM3_GMC_172	0.020	0.013	-0.020	-0.012	0.2	0.3	85.6	84.6	1.02
G_LM3_GMC_173	0.020	0.013	-0.020	-0.012	0.4	0.5	85.6	83.5	2.05
G_LM3_GMC_174	0.020	0.013	-0.020	-0.012	0.4	0.5	85.6	83.5	2.05
G_LM3_GMC_175	0.020	0.013	-0.020	-0.012	0.4	0.5	85.6	83.5	2.05
G_LM3_GMC_176	0.020	0.013	-0.020	-0.012	0.4	0.5	85.6	83.5	2.05
G_LM3_GMC_177	0.020	0.013	-0.020	-0.012	0.2	0.3	85.6	84.6	1.02
G_LM3_GMC_178	0.020	0.013	-0.020	-0.012	0.2	0.3	85.6	84.6	1.02
G_LM3_GMI_106	0.028	0.018	-0.028	-0.017	0.6	0.9	91.5	88.8	2.68
G_LM3_GMI_107	0.028	0.018	-0.028	-0.017	0.6	0.9	91.2	88.5	2.68
G_LM3_GMI_108	0.028	0.018	-0.028	-0.017	0.6	0.9	90.9	88.2	2.69
G_LM3_GMI_109	0.028	0.018	-0.028	-0.017	0.6	0.9	90.7	88.0	2.69
G_LM3_GMI_110	0.028	0.018	-0.028	-0.017	0.6	0.9	90.4	87.7	2.70
G_LM3_GMI_111	0.028	0.018	-0.028	-0.017	0.6	0.9	90.1	87.4	2.71
G_LM3_GMI_112	0.008	0.005	-0.008	-0.005	0.1	0.2	89.9	88.3	1.58

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GMI_113	0.028	0.018	-0.027	-0.017	0.6	0.9	89.3	86.6	2.72
G_LM3_GMI_114	-0.027	-0.017	0.028	0.018	0.6	0.9	86.3	89.1	2.73
G_LM3_GMI_115	-0.027	-0.017	0.028	0.018	0.6	0.9	86.1	88.8	2.73
G_LM3_GMI_116	-0.027	-0.017	0.028	0.018	0.6	0.9	85.8	88.5	2.74
G_LM3_GMI_117	-0.027	-0.017	0.028	0.018	0.6	0.9	85.5	88.3	2.75
G_LM3_GMI_118	-0.008	-0.005	0.008	0.005	0.1	0.2	86.7	88.3	1.60
G_LM3_GMI_119	-0.027	-0.017	0.028	0.018	0.6	0.9	85.5	88.3	2.75
G_LM3_GMK_120	-0.015	-0.009	0.016	0.010	0.4	0.6	85.0	88.0	3.09
G_LM3_GMK_121	-0.027	-0.017	0.028	0.018	0.6	0.9	85.0	87.8	2.76
G_LM3_GMK_122	-0.015	-0.009	0.016	0.010	0.4	0.6	84.4	87.5	3.10
G_LM3_GMK_123	-0.020	-0.012	0.020	0.013	0.3	0.5	85.3	87.3	2.02
G_LM3_GMK_124	-0.045	-0.028	0.046	0.029	0.9	1.3	84.8	87.1	2.27
G_LM3_GMK_125	-0.027	-0.017	0.028	0.018	0.6	1.0	84.1	86.9	2.78
G_LM3_GMK_126	-0.045	-0.028	0.046	0.029	0.9	1.3	84.5	86.8	2.28
G_LM3_GMK_127	-0.027	-0.017	0.028	0.018	0.6	1.0	83.9	86.6	2.79
G_LM3_GMK_128	-0.045	-0.028	0.046	0.029	0.9	1.3	84.2	86.5	2.29
G_LM3_GMK_129	-0.045	-0.028	0.046	0.029	0.9	1.3	84.1	86.4	2.29
G_LM3_GMK_130	-0.027	-0.017	0.028	0.018	0.6	1.0	83.5	86.3	2.79
G_LM3_GMK_131	-0.045	-0.028	0.046	0.029	0.9	1.3	83.9	86.2	2.29
G_LM3_GMK_132	-0.045	-0.028	0.046	0.029	0.9	1.3	84.7	87.0	2.28
G_LM3_GMK_133	-0.015	-0.009	0.016	0.010	0.4	0.6	83.9	87.0	3.11
G_LM3_GMK_134	-0.027	-0.017	0.028	0.018	0.6	1.0	84.2	87.0	2.78
G_LM3_GMK_135	-0.015	-0.009	0.016	0.010	0.4	0.6	83.9	87.0	3.11
G_LM3_GMK_136	-0.045	-0.028	0.046	0.029	0.9	1.3	84.7	87.0	2.28
G_LM3_GMK_137	-0.015	-0.009	0.016	0.010	0.4	0.6	83.8	86.9	3.12
G_LM3_GMK_138	-0.045	-0.028	0.046	0.029	0.9	1.3	84.4	86.7	2.28
G_LM3_GMK_139	-0.045	-0.028	0.046	0.029	0.9	1.3	84.2	86.5	2.28
G_LM3_GMK_140	-0.015	-0.009	0.016	0.010	0.4	0.6	83.4	86.5	3.13
G_LM3_GMK_141	-0.045	-0.028	0.046	0.029	0.9	1.3	84.2	86.5	2.29
G_LM3_GMK_142	-0.015	-0.009	0.016	0.010	0.4	0.6	83.3	86.5	3.13
G_LM3_GMK_143	-0.027	-0.017	0.028	0.018	0.6	1.0	83.7	86.5	2.79
G_LM3_GMK_144	-0.027	-0.017	0.028	0.018	0.6	1.0	83.7	86.5	2.79
G_LM3_GMK_145	-0.015	-0.009	0.016	0.010	0.4	0.6	83.2	86.4	3.13
G_LM3_GMK_146	-0.045	-0.028	0.046	0.029	0.9	1.3	83.9	86.2	2.29
G_LM3_GMK_147	0.016	0.010	-0.015	-0.009	0.4	0.6	85.9	82.8	3.14
G_LM3_GMK_148	0.046	0.029	-0.045	-0.028	0.9	1.3	85.8	83.5	2.30
G_LM3_GMK_149	0.028	0.018	-0.027	-0.017	0.7	1.0	85.6	82.8	2.81

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GMK_150	0.028	0.018	-0.027	-0.017	0.7	1.0	85.5	82.7	2.81
G_LM3_GMK_151	0.028	0.018	-0.027	-0.017	0.7	1.0	85.3	82.5	2.82
G_LM3_GMK_152	0.028	0.018	-0.027	-0.017	0.7	1.0	85.2	82.4	2.82
G_LM3_GMK_153	0.028	0.018	-0.027	-0.017	0.7	1.0	85.1	82.2	2.82
G_LM3_GMK_154	0.046	0.029	-0.045	-0.028	0.9	1.3	86.7	84.4	2.28
G_LM3_GML_179	0.020	0.013	-0.020	-0.012	0.2	0.3	84.9	83.9	1.02
G_LM3_GML_180	0.020	0.013	-0.020	-0.012	0.2	0.3	84.8	83.8	1.02
G_LM3_GML_181	0.020	0.013	-0.020	-0.012	0.4	0.5	84.7	82.6	2.07
G_LM3_GML_182	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.5	2.07
G_LM3_GML_183	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM3_GML_184	0.020	0.013	-0.020	-0.012	0.2	0.3	84.4	83.4	1.03
G_LM3_GML_185	0.020	0.013	-0.020	-0.012	0.2	0.3	84.4	83.4	1.03
G_LM3_GML_186	0.020	0.013	-0.020	-0.012	0.7	1.1	84.3	80.0	4.24
G_LM3_GML_187	0.020	0.013	-0.020	-0.012	0.4	0.5	84.2	82.1	2.08
G_LM3_GML_188	0.020	0.013	-0.020	-0.012	0.4	0.5	84.0	82.0	2.08
G_LM3_GML_189	0.020	0.013	-0.020	-0.012	0.4	0.5	83.9	81.8	2.08
G_LM3_GML_190	0.020	0.013	-0.020	-0.012	0.4	0.5	83.8	81.7	2.08
G_LM3_GML_191	0.020	0.013	-0.020	-0.012	0.4	0.5	83.7	81.6	2.09
G_LM3_GML_192	0.020	0.013	-0.020	-0.012	0.4	0.5	83.6	81.5	2.09
G_LM3_GML_193	0.020	0.013	-0.020	-0.012	0.4	0.5	83.5	81.4	2.09
G_LM3_GML_194	0.020	0.013	-0.020	-0.012	0.8	1.1	83.3	79.1	4.28
G_LM3_GML_195	0.020	0.013	-0.020	-0.012	0.2	0.3	83.3	82.3	1.04
G_LM3_GML_196	0.020	0.013	-0.020	-0.012	0.1	0.2	83.3	82.7	0.64
G_LM3_GML_197	0.020	0.013	-0.020	-0.012	0.2	0.3	83.2	82.2	1.04
G_LM3_GML_198	0.020	0.013	-0.020	-0.012	0.2	0.3	83.1	82.1	1.04
G_LM3_GML_199	0.020	0.013	-0.020	-0.012	0.4	0.6	83.0	80.9	2.10
G_LM3_GML_200	0.020	0.013	-0.020	-0.012	0.4	0.6	82.9	80.8	2.10
G_LM3_GML_201	0.020	0.013	-0.020	-0.012	0.4	0.6	82.8	80.7	2.10
G_LM3_GML_202	0.020	0.013	-0.020	-0.012	0.4	0.6	82.7	80.6	2.10
G_LM3_GML_203	0.020	0.013	-0.020	-0.012	0.4	0.6	82.6	80.5	2.11
G_LM3_GML_204	0.020	0.013	-0.020	-0.012	0.2	0.3	82.5	81.5	1.04
G_LM3_GML_205	0.020	0.013	-0.020	-0.012	0.2	0.3	82.4	81.4	1.04
G_LM3_GML_206	0.020	0.013	-0.020	-0.012	0.8	1.2	82.3	78.0	4.32
G_LM3_GML_207	0.020	0.013	-0.020	-0.012	0.4	0.6	82.2	80.1	2.11
G_LM3_GML_208	0.020	0.013	-0.020	-0.012	0.8	1.2	82.1	77.8	4.33
G_LM3_GML_209	0.020	0.013	-0.020	-0.012	0.4	0.6	82.1	80.0	2.12
G_LM3_GML_210	0.020	0.013	-0.020	-0.012	0.2	0.3	82.1	81.1	1.05

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GML_211	0.020	0.013	-0.020	-0.012	0.2	0.3	82.0	81.0	1.05
G_LM3_GML_212	0.020	0.013	-0.020	-0.012	0.2	0.3	81.9	80.9	1.05
G_LM3_GML_213	0.020	0.013	-0.020	-0.012	0.4	0.6	81.9	79.8	2.12
G_LM3_GML_214	0.020	0.013	-0.020	-0.012	0.4	0.6	81.9	79.7	2.12
G_LM3_GML_215	0.020	0.013	-0.020	-0.012	0.4	0.6	81.8	79.7	2.12
G_LM3_GML_216	0.020	0.013	-0.020	-0.012	0.4	0.6	81.8	79.7	2.12
G_LM3_GML_217	0.020	0.013	-0.020	-0.012	0.4	0.6	81.8	79.7	2.12
G_LM3_GML_218	0.020	0.013	-0.020	-0.012	0.4	0.6	81.8	79.7	2.12
G_LM3_GML_219	0.020	0.013	-0.020	-0.012	0.4	0.6	81.9	79.8	2.12
G_LM3_GML_220	0.020	0.013	-0.020	-0.012	0.4	0.6	81.9	79.8	2.12
G_LM3_GML_221	0.020	0.013	-0.020	-0.012	0.8	1.2	81.9	77.6	4.34
G_LM3_GML_222	0.020	0.013	-0.020	-0.012	0.8	1.2	81.9	77.6	4.34
G_LM3_GML_223	0.020	0.013	-0.020	-0.012	0.2	0.3	81.9	80.9	1.05
G_LM3_GML_224	0.020	0.013	-0.020	-0.012	0.4	0.6	81.9	79.7	2.12
G_LM3_GML_225	0.020	0.013	-0.020	-0.012	0.4	0.6	81.8	79.7	2.12
G_LM3_GML_226	0.020	0.013	-0.020	-0.012	0.8	1.2	81.7	77.4	4.35
G_LM3_GML_227	0.020	0.013	-0.020	-0.012	0.2	0.3	81.7	80.6	1.05
G_LM3_GML_228	0.020	0.013	-0.020	-0.012	0.4	0.6	81.6	79.5	2.13
G_LM3_GML_229	0.020	0.013	-0.020	-0.012	0.4	0.6	81.6	79.5	2.13
G_LM3_GML_230	0.020	0.013	-0.020	-0.012	0.4	0.6	81.6	79.5	2.13
G_LM3_GML_231	0.020	0.013	-0.020	-0.012	0.4	0.6	81.6	79.5	2.13
G_LM3_GML_232	0.020	0.013	-0.020	-0.012	0.4	0.6	81.6	79.5	2.13
G_LM3_GML_233	0.021	0.014	-0.019	-0.012	1.4	2.1	81.5	74.0	7.53
G_LM3_GML_234	0.021	0.014	-0.019	-0.012	1.4	2.1	81.5	74.0	7.53
G_LM3_GML_235	0.020	0.013	-0.020	-0.012	0.2	0.3	81.5	80.5	1.05
G_LM3_GML_236	0.020	0.013	-0.020	-0.012	0.2	0.3	81.5	80.5	1.05
G_LM3_GML_237	0.020	0.013	-0.020	-0.012	0.4	0.6	81.5	79.4	2.13
G_LM3_GML_238	0.020	0.013	-0.020	-0.012	0.4	0.6	81.4	79.3	2.13
G_LM3_GML_239	0.020	0.013	-0.020	-0.012	0.8	1.2	81.4	77.0	4.36
G_LM3_GML_240	0.020	0.013	-0.020	-0.012	0.4	0.6	81.4	79.2	2.13
G_LM3_GML_241	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_242	0.021	0.014	-0.019	-0.012	1.4	2.1	81.3	73.8	7.54
G_LM3_GML_243	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_244	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.1	2.13
G_LM3_GML_245	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.1	2.13
G_LM3_GML_246	0.020	0.013	-0.020	-0.012	0.2	0.3	81.2	80.2	1.05
G_LM3_GML_247	0.020	0.013	-0.020	-0.012	0.2	0.3	81.2	80.2	1.05

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GML_248	0.020	0.013	-0.020	-0.012	0.8	1.2	81.3	77.0	4.37
G_LM3_GML_249	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_250	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_251	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_252	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_253	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_254	0.020	0.013	-0.020	-0.012	0.4	0.6	81.3	79.2	2.13
G_LM3_GML_255	0.020	0.013	-0.020	-0.012	0.2	0.3	81.3	80.2	1.05
G_LM3_GML_256	0.016	0.010	-0.016	-0.010	0.5	0.7	81.2	77.8	3.46
G_LM3_GML_257	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.1	2.13
G_LM3_GML_258	0.020	0.013	-0.020	-0.012	0.2	0.3	81.2	80.2	1.06
G_LM3_GML_259	0.020	0.013	-0.020	-0.012	0.8	1.2	81.2	76.9	4.37
G_LM3_GML_260	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.1	2.13
G_LM3_GML_261	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.1	2.13
G_LM3_GML_262	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.1	2.13
G_LM3_GML_263	0.020	0.013	-0.020	-0.012	0.2	0.3	81.2	80.1	1.06
G_LM3_GML_264	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.1	2.13
G_LM3_GML_265	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.1	2.13
G_LM3_GML_266	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.0	2.14
G_LM3_GML_267	0.020	0.013	-0.020	-0.012	0.4	0.6	81.2	79.0	2.14
G_LM4_GM_100	-0.028	-0.017	0.028	0.018	0.6	0.9	89.1	91.7	2.67
G_LM4_GM_101	-0.012	-0.008	0.012	0.008	0.0	0.1	91.4	91.7	0.36
G_LM4_GM_102	0.047	0.030	-0.046	-0.028	0.8	1.2	91.7	89.5	2.19
G_LM4_GM_103	-0.028	-0.017	0.028	0.018	0.6	0.9	89.0	91.7	2.67
G_LM4_GM_104	-0.028	-0.017	0.028	0.018	0.6	0.9	89.0	91.7	2.67
G_LM4_GM_105	0.046	0.030	-0.046	-0.028	0.8	1.2	91.6	89.5	2.19
G_LM4_GM_90	-0.006	-0.004	0.006	0.004	0.0	0.0	91.6	91.7	0.17
G_LM4_GM_91	-0.046	-0.028	0.047	0.030	0.8	1.2	89.5	91.7	2.19
G_LM4_GM_92	0.042	0.027	-0.041	-0.025	1.3	2.0	91.7	87.7	3.98
G_LM4_GM_93	-0.028	-0.017	0.028	0.018	0.6	0.9	89.0	91.7	2.67
G_LM4_GM_94	-0.002	-0.002	0.002	0.002	0.0	0.0	91.6	91.7	0.12
G_LM4_GM_95	0.047	0.030	-0.046	-0.028	0.8	1.2	91.7	89.5	2.19
G_LM4_GM_96	0.035	0.023	-0.034	-0.021	0.9	1.4	91.8	88.5	3.32
G_LM4_GM_97	-0.011	-0.007	0.011	0.007	0.0	0.1	91.2	91.7	0.50
G_LM4_GM_98	-0.011	-0.007	0.012	0.007	0.0	0.1	91.2	91.7	0.54
G_LM4_GM_99	0.004	0.003	-0.004	-0.003	0.0	0.0	91.7	91.3	0.39
G_LMT1_GMT031	-0.004	-0.002	0.004	0.003	0.0	0.0	82.4	83.2	0.83

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LMT1_GMT032	-0.014	-0.009	0.015	0.009	0.4	0.6	80.2	83.2	3.05
G_LMT1_GMT033	-0.052	-0.032	0.054	0.036	2.7	4.1	77.5	83.2	5.75
G_LMT1_GMT034	0.065	0.043	-0.061	-0.038	3.9	5.8	83.2	76.4	6.87
G_LMT1_GMT035	-0.027	-0.017	0.028	0.018	0.7	1.0	80.4	83.2	2.87
G_LMT1_GMT036	-0.039	-0.024	0.040	0.025	0.7	1.1	81.2	83.3	2.05
G_LMT1_GMT038	-0.053	-0.033	0.054	0.035	1.3	2.0	80.5	83.3	2.83
G_LMT1_GMT039	-0.034	-0.021	0.035	0.023	1.1	1.7	79.7	83.3	3.66
G_LMT1_GMT040	-0.049	-0.030	0.050	0.032	1.1	1.7	80.8	83.4	2.61
G_LMT1_GMT041	-0.055	-0.034	0.056	0.036	1.4	2.1	80.5	83.5	2.91
G_LMT1_GMT042	-0.044	-0.027	0.044	0.028	0.9	1.3	81.3	83.6	2.30
G_LMT1_GMT043	0.029	0.019	-0.028	-0.018	0.8	1.1	83.6	80.5	3.04
G_LMT1_GMT044	-0.071	-0.044	0.073	0.046	1.5	2.2	81.1	83.5	2.36
G_LMT1_GMT045	-0.033	-0.021	0.034	0.021	0.5	0.8	81.7	83.5	1.75
G_LMT1_GMT046	-0.042	-0.026	0.044	0.029	1.8	2.7	78.8	83.5	4.64
G_LMT1_GMT047	-0.016	-0.010	0.016	0.010	0.1	0.1	83.0	83.4	0.41
G_LMT1_GMT048	-0.029	-0.018	0.030	0.019	0.4	0.6	81.8	83.4	1.54
G_LMT1_GMT049	-0.015	-0.009	0.015	0.010	0.1	0.2	82.5	83.3	0.79
G_LMT1_GMT050	-0.057	-0.035	0.058	0.038	1.5	2.3	80.2	83.3	3.04
G_LMT1_GMT051	-0.031	-0.019	0.031	0.020	0.4	0.7	81.6	83.2	1.63
G_LMT1_GMT052	0.025	0.016	-0.025	-0.015	0.6	0.9	83.2	80.6	2.61
G_LMT1_GMT053	-0.010	-0.006	0.010	0.007	0.1	0.1	82.1	83.2	1.08
G_LMT1_GMT054	0.016	0.010	-0.016	-0.010	0.2	0.3	83.2	81.5	1.67
G_LMT1_GMT055	-0.005	-0.003	0.005	0.003	0.0	0.0	82.7	83.2	0.49
G_LMT1_GMT056	0.031	0.019	-0.030	-0.019	0.4	0.6	83.2	81.6	1.58
G_LMT1_GMT057	-0.014	-0.009	0.015	0.009	0.4	0.6	80.2	83.2	3.05
G_LMT1_GMT058	-0.046	-0.029	0.047	0.029	0.6	0.9	81.7	83.2	1.51
G_LMT1_GMT059	-0.004	-0.002	0.004	0.003	0.0	0.0	82.4	83.2	0.83
G_LMT1_GMT060	-0.014	-0.009	0.014	0.009	0.2	0.3	81.7	83.2	1.50
G_LMT1_GMT061	-0.065	-0.040	0.067	0.043	2.0	3.0	80.3	83.7	3.47
G_LMT1_GMT062	-0.016	-0.010	0.016	0.010	0.2	0.3	82.4	84.1	1.66
G_LMT1_GMT063	-0.056	-0.035	0.058	0.037	1.5	2.2	80.9	83.9	2.98
G_LMT1_GMT064	-0.005	-0.003	0.005	0.003	0.0	0.0	83.8	83.9	0.10
G_LMT1_GMT065	-0.024	-0.015	0.024	0.016	0.5	0.8	81.8	84.3	2.50
G_LMT1_GMT066	-0.013	-0.008	0.013	0.008	0.1	0.2	82.9	84.2	1.32
G_LMT1_GMT067	0.071	0.046	-0.069	-0.043	2.2	3.3	84.4	80.7	3.66
G_LMT1_GMT068	-0.029	-0.018	0.029	0.019	0.8	1.1	81.4	84.4	3.01
G_LMT1_GMT069	-0.008	-0.005	0.008	0.005	0.1	0.1	83.5	84.3	0.82

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LMT1_GMT070	-0.018	-0.011	0.018	0.011	0.1	0.2	83.4	84.3	0.90
G_LMT1_GMT071	-0.003	-0.002	0.003	0.002	0.0	0.0	83.9	84.3	0.33
G_LMT1_GMT072	-0.025	-0.016	0.026	0.017	0.6	0.9	81.6	84.3	2.67
G_LMT1_GMT073	-0.002	-0.001	0.002	0.001	0.0	0.0	84.0	84.2	0.24
G_LMT1_GMT074	-0.023	-0.014	0.024	0.015	0.5	0.7	81.8	84.2	2.42
G_LMT1_GMT075	-0.028	-0.017	0.028	0.018	0.3	0.5	82.7	84.2	1.45
G_LMT1_GMT076	-0.044	-0.028	0.045	0.029	0.9	1.4	81.8	84.2	2.33
G_LMT1_GMT077	-0.009	-0.005	0.009	0.005	0.0	0.1	83.7	84.2	0.45
G_LMT1_GMT079	-0.007	-0.004	0.007	0.005	0.0	0.1	83.5	84.2	0.74
G_LMT1_GMT080	-0.037	-0.023	0.038	0.024	0.6	1.0	82.3	84.2	1.95
G_LMT1_GMT081	-0.025	-0.015	0.025	0.016	0.6	0.8	81.6	84.2	2.59
G_LMT1_GMT123	-0.044	-0.027	0.045	0.029	0.9	1.4	81.2	83.5	2.35
G_LMT1_GMT132	-0.044	-0.028	0.045	0.029	0.9	1.4	81.9	84.2	2.33
G_LMT2_GMT081	-0.025	-0.015	0.025	0.016	0.6	0.8	81.7	84.3	2.59
G_LMT2_GMT082	-0.044	-0.028	0.045	0.029	0.9	1.4	81.8	84.2	2.33
G_LMT2_GMT083	-0.004	-0.002	0.004	0.003	0.0	0.0	83.2	84.1	0.82
G_LMT2_GMT084	-0.031	-0.019	0.032	0.020	0.9	1.3	80.7	83.9	3.29
G_LMT2_GMT085	-0.027	-0.017	0.028	0.018	0.7	1.0	81.0	83.9	2.86
G_LMT2_GMT086	-0.044	-0.028	0.045	0.029	0.9	1.4	81.4	83.8	2.34
G_LMT2_GMT087	-0.034	-0.021	0.035	0.023	1.1	1.7	80.0	83.7	3.65
G_LMT2_GMT088	-0.010	-0.006	0.010	0.006	0.1	0.1	82.6	83.6	0.99
G_LMT2_GMT089	-0.024	-0.015	0.024	0.016	0.5	0.8	80.9	83.4	2.52
G_LMT2_GMT090	-0.003	-0.002	0.003	0.002	0.0	0.0	82.7	83.4	0.66
G_LMT2_GMT091	-0.016	-0.010	0.016	0.010	0.5	0.7	79.9	83.3	3.39
G_LMT2_GMT092	-0.013	-0.008	0.014	0.009	0.2	0.3	81.8	83.2	1.41
G_LMT2_GMT093	-0.025	-0.016	0.026	0.017	0.6	0.9	80.5	83.2	2.70
G_LMT2_GMT094	-0.014	-0.009	0.015	0.009	0.4	0.6	80.0	83.1	3.05
G_LMT2_GMT095	-0.005	-0.003	0.005	0.003	0.0	0.0	82.5	83.0	0.50
G_LMT2_GMT096	-0.005	-0.003	0.005	0.003	0.0	0.0	82.5	83.0	0.50
G_LMT2_GMT097	-0.002	-0.001	0.002	0.001	0.0	0.0	82.4	82.9	0.50
G_LMT2_GMT098	-0.004	-0.002	0.004	0.003	0.0	0.0	82.0	82.8	0.83
G_LMT2_GMT099	-0.003	-0.002	0.003	0.002	0.0	0.0	82.5	82.8	0.33
G_LMT2_GMT100	-0.016	-0.010	0.016	0.010	0.1	0.2	82.0	82.8	0.83
G_LMT2_GMT101	-0.027	-0.017	0.028	0.018	0.7	1.0	79.9	82.8	2.88
G_LMT2_GMT102	-0.007	-0.004	0.007	0.005	0.0	0.1	82.0	82.8	0.75
G_LMT2_GMT103	-0.002	-0.001	0.002	0.001	0.0	0.0	82.5	82.8	0.25
G_LMT2_GMT104	-0.003	-0.002	0.003	0.002	0.0	0.0	82.4	82.8	0.33

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LMT2_GMT105	-0.003	-0.002	0.003	0.002	0.0	0.0	82.4	82.8	0.33
G_LMT2_GMT106	-0.003	-0.002	0.003	0.002	0.0	0.0	82.5	82.8	0.33
G_LMT2_GMT107	-0.006	-0.004	0.006	0.004	0.0	0.0	82.4	82.8	0.33
G_LMT2_GMT108	-0.012	-0.007	0.012	0.008	0.1	0.2	81.5	82.7	1.25
G_LMT2_GMT109	-0.013	-0.008	0.013	0.008	0.1	0.2	81.3	82.7	1.34
G_LMT2_GMT110	-0.008	-0.005	0.008	0.005	0.1	0.1	81.8	82.6	0.83
G_LMT2_GMT111	-0.002	-0.001	0.002	0.001	0.0	0.0	82.1	82.6	0.50
G_LMT2_GMT112	-0.008	-0.005	0.008	0.005	0.1	0.1	81.6	82.5	0.83
G_LMT2_GMT113	-0.013	-0.008	0.013	0.008	0.1	0.1	81.8	82.4	0.67
G_LMT2_GMT114	-0.002	-0.001	0.002	0.001	0.0	0.0	82.3	82.4	0.17
G_LMT2_GMT116	-0.009	-0.005	0.009	0.006	0.1	0.1	81.5	82.4	0.92
G_LMT2_GMT117	-0.027	-0.017	0.027	0.018	0.7	1.0	79.5	82.3	2.90
G_LMT2_GMT118	-0.001	0.000	0.001	0.000	0.0	0.0	82.2	82.3	0.17
G_LMT2_GMT119	-0.003	-0.002	0.003	0.002	0.0	0.0	82.0	82.3	0.33
G_LMT2_GMT120	-0.031	-0.019	0.031	0.020	0.4	0.7	80.6	82.3	1.64
G_LMT2_GMT121	-0.022	-0.014	0.023	0.014	0.5	0.7	79.9	82.2	2.37
G_LMT2_GMT122	-0.024	-0.015	0.024	0.015	0.5	0.8	79.7	82.2	2.55
G_LMT2_GMT123	-0.024	-0.015	0.025	0.016	0.6	0.9	79.6	82.2	2.64
G_LMT2_GMT124	-0.022	-0.014	0.023	0.014	0.5	0.7	79.8	82.2	2.37
G_LMT2_GMT125	-0.002	-0.001	0.002	0.001	0.0	0.0	82.0	82.2	0.25
G_LMT2_GMT126	-0.003	-0.002	0.003	0.002	0.0	0.0	81.9	82.2	0.33
G_LMT2_GMT127	-0.025	-0.015	0.025	0.016	0.3	0.4	80.9	82.2	1.30
G_LMT2_GMT128	-0.002	-0.001	0.002	0.001	0.0	0.0	81.9	82.2	0.33
G_LMT2_GMT129	-0.006	-0.004	0.006	0.004	0.0	0.1	81.5	82.2	0.67
G_LMT2_GMT130	-0.002	-0.001	0.002	0.001	0.0	0.0	82.0	82.2	0.17
G_LMT2_GMT131	-0.027	-0.017	0.027	0.018	0.7	1.0	79.3	82.2	2.90
G_LMT2_GMT135	-0.027	-0.017	0.027	0.018	0.7	1.0	79.9	82.7	2.88
G_MR1_GMP_1	-0.030	-0.018	0.030	0.019	0.5	0.8	100.1	102.7	2.55
G_MR1_GMP_10	-0.067	-0.042	0.069	0.044	1.5	2.2	97.0	100.0	2.97
G_MR1_GMP_11	-0.034	-0.021	0.034	0.022	0.7	1.1	96.8	99.7	2.98
G_MR1_GMP_12	-0.034	-0.021	0.034	0.022	0.7	1.1	96.5	99.5	2.98
G_MR1_GMP_13	-0.067	-0.042	0.069	0.044	1.5	2.2	96.4	99.4	2.99
G_MR1_GMP_14	-0.067	-0.042	0.068	0.044	1.5	2.2	96.3	99.3	2.99
G_MR1_GMP_15	-0.021	-0.013	0.021	0.014	0.6	0.9	95.5	99.3	3.76
G_MR1_GMP_16	-0.067	-0.042	0.068	0.044	1.5	2.2	96.2	99.2	2.99
G_MR1_GMP_17	-0.033	-0.021	0.034	0.022	0.7	1.1	96.1	99.1	2.99
G_MR1_GMP_18	-0.033	-0.021	0.034	0.022	0.7	1.1	96.1	99.1	2.99

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_MR1_GMP_19	-0.033	-0.021	0.034	0.022	0.7	1.1	96.0	99.0	2.99
G_MR1_GMP_2_	0.017	0.011	-0.017	-0.011	0.4	0.5	102.4	99.4	2.93
G_MR1_GMP_20_	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	2.99
G_MR1_GMP_21	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	3.00
G_MR1_GMP_22	0.034	0.022	-0.033	-0.021	0.7	1.1	98.9	96.0	3.00
G_MR1_GMP_23	0.034	0.022	-0.033	-0.021	0.7	1.1	98.9	95.9	3.00
G_MR1_GMP_24	0.068	0.044	-0.067	-0.041	1.5	2.2	99.0	96.0	2.99
G_MR1_GMP_25	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	3.00
G_MR1_GMP_26	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	3.00
G_MR1_GMP_27	0.069	0.044	-0.067	-0.042	1.5	2.2	99.4	96.4	2.99
G_MR1_GMP_28	0.069	0.044	-0.067	-0.042	1.5	2.2	99.4	96.4	2.99
G_MR1_GMP_29	0.069	0.044	-0.067	-0.042	1.5	2.2	99.4	96.4	2.99
G_MR1_GMP_3	-0.030	-0.018	0.030	0.019	0.5	0.8	99.5	102.0	2.56
G_MR1_GMP_30	0.034	0.022	-0.034	-0.021	0.7	1.1	99.4	96.4	2.99
G_MR1_GMP_31	0.034	0.022	-0.034	-0.021	0.7	1.1	99.4	96.4	2.99
G_MR1_GMP_32	0.103	0.065	-0.101	-0.062	2.1	3.1	99.4	96.6	2.80
G_MR1_GMP_33_	0.034	0.022	-0.034	-0.021	0.7	1.1	99.4	96.4	2.99
G_MR1_GMP_34	0.034	0.022	-0.034	-0.021	0.7	1.1	99.3	96.3	2.99
G_MR1_GMP_35	0.034	0.022	-0.034	-0.021	0.7	1.1	99.3	96.3	2.99
G_MR1_GMP_36	0.034	0.022	-0.034	-0.021	0.7	1.1	99.2	96.3	2.99
G_MR1_GMP_37	0.017	0.011	-0.017	-0.010	0.4	0.6	99.2	96.2	2.99
G_MR1_GMP_38	0.034	0.022	-0.033	-0.021	0.7	1.1	99.2	96.2	2.99
G_MR1_GMP_39	0.068	0.044	-0.067	-0.042	1.5	2.2	99.2	96.2	2.99
G_MR1_GMP_4	-0.034	-0.021	0.035	0.022	0.7	1.1	98.8	101.7	2.94
G_MR1_GMP_5	-0.068	-0.042	0.069	0.044	1.4	2.2	98.4	101.4	2.95
G_MR1_GMP_6	-0.127	-0.078	0.129	0.082	2.5	3.8	98.3	101.1	2.77
G_MR1_GMP_7	-0.034	-0.021	0.034	0.022	0.7	1.1	97.8	100.8	2.96
G_MR1_GMP_8	-0.034	-0.021	0.034	0.022	0.7	1.1	97.6	100.5	2.96
G_MR1_GMP_9	-0.034	-0.021	0.034	0.022	0.7	1.1	97.3	100.3	2.97
G_MR4_GM02	1.819	1.156	-1.786	-1.107	32.6	48.8	102.7	100.1	2.55
G_MR4_GM03	0.039	0.024	-0.038	-0.024	0.4	0.7	102.9	101.3	1.62
G_MR4_GM04	0.012	0.008	-0.012	-0.007	0.1	0.1	102.9	101.9	1.00
G_MR4_GM05	0.013	0.008	-0.012	-0.008	0.2	0.3	102.9	100.8	2.12
G_MR4_GM06	0.017	0.011	-0.017	-0.011	0.4	0.5	102.7	99.8	2.95
G_MR4_GM07	0.027	0.017	-0.026	-0.016	0.9	1.3	102.6	98.0	4.55
G_MR4_GM08	0.001	0.001	-0.001	-0.001	0.0	0.0	102.4	102.4	0.07
G_MR4_GM09	0.080	0.053	-0.076	-0.047	3.9	5.8	102.3	95.4	6.84

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_MR4_GM10	0.016	0.010	-0.016	-0.010	0.1	0.1	102.1	101.5	0.68
G_MR4_GM11	0.060	0.041	-0.056	-0.035	4.6	6.8	102.0	91.5	10.54
G_MR4_GM12	0.019	0.012	-0.018	-0.011	0.4	0.6	101.9	98.7	3.16
G_MR4_GM13	0.103	0.070	-0.096	-0.060	6.7	10.1	100.9	91.9	9.05
G_MR4_GM14	0.074	0.049	-0.070	-0.044	3.4	5.1	100.9	94.5	6.42
G_MR4_GM15	0.058	0.040	-0.054	-0.034	4.4	6.6	100.9	90.6	10.33
G_MR4_GM16	0.005	0.003	-0.005	-0.003	0.0	0.0	100.9	100.7	0.19
G_MR4_GM17	0.035	0.023	-0.035	-0.021	0.8	1.2	100.9	97.9	3.04
G_MR4_GM18	0.018	0.011	-0.017	-0.011	0.2	0.3	100.9	99.4	1.49
G_MR4_GM19	0.098	0.063	-0.095	-0.059	2.9	4.4	100.9	96.7	4.21
G_MR4_GM20	0.065	0.043	-0.062	-0.039	2.6	3.9	100.9	95.3	5.64
G_MR4_GM21	0.050	0.033	-0.049	-0.030	1.6	2.3	100.9	96.6	4.34
G_MR4_GM22	0.021	0.013	-0.021	-0.013	0.1	0.2	100.9	100.0	0.91
G_MR4_GM23	0.062	0.043	-0.057	-0.035	5.0	7.5	101.0	90.0	11.03
G_MR4_GM24	0.053	0.034	-0.051	-0.032	1.7	2.6	101.1	96.6	4.54
G_MR4_GM25	0.039	0.024	-0.038	-0.024	0.5	0.7	101.0	99.4	1.65
G_MR4_GM26	0.029	0.019	-0.029	-0.018	0.5	0.8	101.7	99.2	2.50
G_MR4_GM27	0.076	0.050	-0.073	-0.045	3.6	5.4	101.6	95.0	6.58
G_MR4_GM28	0.021	0.013	-0.021	-0.013	0.3	0.4	101.5	99.7	1.78
G_MR4_GM29	0.033	0.021	-0.032	-0.020	0.6	1.0	101.4	98.6	2.78
G_MR4_GM30	0.068	0.044	-0.065	-0.040	2.8	4.2	101.3	95.5	5.85
G_MR4_GM31	0.029	0.018	-0.029	-0.018	0.3	0.4	101.2	100.0	1.23
G_MR4_GM32	0.004	0.003	-0.004	-0.003	0.0	0.0	101.2	100.4	0.74
G_MR4_GM33	0.017	0.010	-0.016	-0.010	0.1	0.1	101.2	100.5	0.70
G_MR4_GM34	0.070	0.045	-0.068	-0.042	1.5	2.2	101.2	98.2	3.00
G_MR4_GM35	0.084	0.056	-0.080	-0.049	4.5	6.7	101.2	93.8	7.35
G_MR4_GM36	0.005	0.003	-0.005	-0.003	0.0	0.1	101.2	100.2	0.92
G_MR4_GM37	0.023	0.015	-0.023	-0.014	0.2	0.2	101.1	100.2	0.98
G_MR4_GM38	0.055	0.035	-0.053	-0.033	1.8	2.7	101.1	96.4	4.70
G_MR4_GM39	0.050	0.033	-0.049	-0.030	1.6	2.3	101.1	96.8	4.33
G_MR4_GM40	0.055	0.035	-0.054	-0.034	0.9	1.4	101.6	99.2	2.34
G_MR4_GM41	0.060	0.038	-0.059	-0.037	1.1	1.6	101.5	99.0	2.57
G_MR4_GM42	0.018	0.011	-0.017	-0.011	0.1	0.1	101.5	100.8	0.74
G_MR4_GM43	0.014	0.009	-0.014	-0.008	0.1	0.2	101.5	100.4	1.16
G_MR4_GM44	0.071	0.045	-0.070	-0.043	1.5	2.3	101.5	98.5	3.04
G_MR4_GM45	0.019	0.012	-0.018	-0.011	0.2	0.3	101.5	100.0	1.57
G_MR4_GM46	0.045	0.028	-0.044	-0.027	0.6	0.9	101.5	99.6	1.89

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_MR4_GM47	0.052	0.034	-0.050	-0.031	1.6	2.5	101.5	97.1	4.44
G_MR4_GM48	0.038	0.024	-0.037	-0.023	0.4	0.7	100.9	99.3	1.61
G_MR4_GM49	0.025	0.015	-0.024	-0.015	0.2	0.3	100.9	99.9	1.05
G_MR4_GMP01	0.032	0.020	-0.031	-0.019	0.6	0.9	102.8	100.2	2.67
G_MR6_GMP040	-0.016	-0.010	0.016	0.010	0.3	0.5	99.2	102.0	2.79
G_MR6_GMP041	-0.029	-0.018	0.029	0.019	0.5	0.8	98.5	101.0	2.50
G_MR6_GMP042	-0.021	-0.013	0.021	0.014	0.3	0.4	98.2	100.1	1.84
G_MR6_GMP043	-0.013	-0.008	0.013	0.008	0.1	0.1	98.6	99.1	0.55
G_MR6_GMP044	-0.041	-0.025	0.042	0.026	0.6	0.8	96.3	98.2	1.83
G_MR6_GMP045	-0.047	-0.029	0.047	0.030	0.7	1.1	95.1	97.2	2.11
G_MR6_GMP046	-0.024	-0.015	0.025	0.016	0.4	0.6	95.0	97.2	2.18
G_MR6_GMP047	-0.026	-0.016	0.026	0.017	0.5	0.7	94.8	97.2	2.34
G_MR6_GMP048	-0.119	-0.074	0.121	0.077	2.4	3.7	94.4	97.1	2.70
G_MR6_GMP049	-0.010	-0.006	0.010	0.006	0.1	0.1	96.3	97.2	0.89
G_MR6_GMP050	-0.006	-0.004	0.006	0.004	0.0	0.0	96.7	97.2	0.52
G_MR6_GMP051	-0.019	-0.012	0.019	0.012	0.2	0.4	95.5	97.2	1.73
G_MR6_GMP052	-0.003	-0.002	0.003	0.002	0.0	0.0	96.9	97.2	0.30
G_MR6_GMP053	-0.006	-0.004	0.006	0.004	0.0	0.0	96.7	97.2	0.52
G_MR6_GMP054	-0.014	-0.009	0.014	0.009	0.1	0.1	95.7	96.4	0.64
G_MR6_GMP055	-0.028	-0.017	0.029	0.018	0.6	0.8	93.8	96.4	2.58
G_MR6_GMP056	-0.050	-0.031	0.051	0.033	0.9	1.4	93.2	95.5	2.33
G_MR6_GMP057	-0.008	-0.005	0.008	0.005	0.0	0.1	93.9	94.7	0.76
G_MR6_GMP058	-0.046	-0.029	0.047	0.030	0.8	1.2	91.7	93.8	2.16
G_MR6_GMP059	-0.028	-0.017	0.028	0.018	0.6	0.9	90.4	93.0	2.65
G_MR6_GMP060	-0.028	-0.017	0.028	0.018	0.6	0.9	89.5	92.2	2.66
G_MR6_GMP061	-0.045	-0.028	0.046	0.029	0.8	1.2	87.6	89.8	2.22
G_MR6_GMT001	-0.002	-0.001	0.002	0.001	0.0	0.0	89.4	89.7	0.31
G_MR6_GMT002	0.016	0.010	-0.016	-0.010	0.2	0.3	89.5	87.9	1.58
G_MR6_GMT003	-0.016	-0.010	0.016	0.010	0.2	0.3	87.8	89.4	1.59
G_MR6_GMT004	-0.002	-0.002	0.002	0.002	0.0	0.0	89.1	89.2	0.12
G_MR6_GMT005	-0.004	-0.003	0.004	0.003	0.0	0.0	88.9	89.1	0.20
G_MR6_GMT006	0.004	0.003	-0.004	-0.003	0.0	0.0	88.9	88.1	0.79
G_MR6_GMT007	-0.022	-0.014	0.022	0.014	0.4	0.6	86.6	88.8	2.16
G_MR6_GMT008	-0.021	-0.013	0.022	0.014	0.7	1.1	84.5	88.7	4.24
G_MR6_GMT009	-0.005	-0.003	0.005	0.003	0.0	0.1	87.8	88.7	0.95
G_MR6_GMT010	-0.027	-0.016	0.027	0.017	0.6	0.9	86.1	88.7	2.65
G_MR6_GMT011	-0.015	-0.010	0.016	0.010	0.2	0.3	87.2	88.7	1.51

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
G_MR6_GMT012	-0.011	-0.007	0.011	0.007	0.0	0.1	88.2	88.7	0.51
G_MR6_GMT013	-0.003	-0.002	0.003	0.002	0.0	0.0	88.0	88.6	0.63
G_MR6_GMT015	-0.009	-0.006	0.009	0.006	0.1	0.1	87.6	88.5	0.87
G_MR6_GMT016	-0.017	-0.011	0.017	0.011	0.2	0.4	86.6	88.3	1.68
G_MR6_GMT017	-0.014	-0.008	0.014	0.009	0.3	0.5	85.4	88.2	2.75
G_MR6_GMT018	-0.026	-0.016	0.026	0.017	0.6	0.8	85.4	88.0	2.59
G_MR6_GMT020	-0.047	-0.029	0.048	0.031	0.9	1.4	85.3	87.7	2.39
G_MR6_GMT021	-0.002	-0.002	0.002	0.002	0.0	0.0	87.3	87.5	0.24
G_MR6_GMT022	-0.042	-0.026	0.043	0.027	0.7	1.1	85.2	87.3	2.10
G_MR6_GMT023	-0.018	-0.011	0.018	0.011	0.1	0.2	86.2	87.1	0.88
G_MR6_GMT024	-0.007	-0.004	0.007	0.005	0.0	0.1	86.2	86.9	0.72
G_MR6_GMT025	-0.018	-0.011	0.018	0.011	0.3	0.4	85.1	86.9	1.78
G_MR6_GMT026	-0.027	-0.017	0.028	0.018	0.6	1.0	83.9	86.7	2.78
G_MR6_GMT027	-0.002	-0.001	0.002	0.002	0.0	0.0	86.2	86.5	0.24
G_MR6_GMT028	-0.025	-0.015	0.025	0.016	0.5	0.8	83.7	86.3	2.54
G_MR6_GMT029	-0.015	-0.009	0.016	0.010	0.4	0.6	83.0	86.1	3.14
G_MR6_GMT030	-0.001	0.000	0.001	0.001	0.0	0.0	85.9	86.1	0.16
G_MR6_GMT134	-0.027	-0.017	0.028	0.018	0.6	0.9	85.1	87.9	2.76
GI.MARISA	15.366	11.078	-15.332	-9.583	33.2	1494.7	100.0	103.1	3.09
INC LM3	1.405	0.827	-1.404	-0.839	0.7	-12.6	83.1	83.1	0.04
INC_MR.6	-2.305	-1.331	2.307	1.318	1.9	-12.3	84.5	84.6	0.07
L_AG2_3	0.000	0.000	0.000	0.000	0.0	-0.3	90.9	90.9	0.00
L_AG2_43	0.000	-0.001	0.000	0.000	0.0	-0.7	82.2	82.2	0.00
L_AG2_55	2.991	1.757	-2.960	-1.732	30.7	24.9	91.4	90.3	1.06
L_AG2_58	-2.951	-1.725	2.960	1.732	9.2	7.5	90.0	90.3	0.32
L_AG2_62	0.000	-0.001	0.000	0.000	0.0	-0.7	83.2	83.2	0.00
L_AG2_65	0.000	-0.001	0.000	0.000	0.0	-1.3	99.2	99.2	0.00
L_AG2_66	0.000	0.019	0.000	-0.020	0.0	-0.7	100.9	100.9	0.00
L_AG2_68	0.000	-0.001	0.000	0.000	0.0	-0.8	91.6	91.6	0.00
L_AG2_74	2.056	1.262	-2.054	-1.258	2.6	3.2	86.2	86.1	0.15
L_AG2_77	0.000	0.000	0.000	0.000	0.0	-0.4	81.2	81.2	0.00
L_LM1_GM_1	0.790	0.455	-0.789	-0.455	1.0	-0.2	91.8	91.7	0.14
L_LM1_GM_10	0.258	0.145	-0.258	-0.146	0.1	-1.1	91.2	91.2	0.05
L_LM1_GM_100	3.733	2.362	-3.725	-2.351	8.1	10.9	90.1	89.9	0.26
L_LM1_GM_102	3.717	2.345	-3.709	-2.335	8.1	10.8	89.9	89.6	0.26
L_LM1_GM_110	-3.701	-2.324	3.709	2.335	8.1	10.9	89.3	89.6	0.26
L_LM1_GM_111	0.028	0.017	-0.028	-0.018	0.0	-1.1	88.3	88.3	0.01

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
L_LM1_GM_112	-0.036	-0.022	0.036	0.021	0.0	-1.1	88.3	88.3	0.01
L_LM1_GM_113	-3.557	-2.210	3.565	2.221	7.6	10.2	88.3	88.5	0.26
L_LM1_GM_114	-3.593	-2.238	3.601	2.249	7.7	10.3	88.5	88.8	0.26
L_LM1_GM_115	-3.629	-2.267	3.637	2.277	7.8	10.5	88.8	89.1	0.26
L_LM1_GM_116	-3.665	-2.295	3.673	2.306	7.9	10.7	89.1	89.3	0.26
L_LM1_GM_12	0.230	0.128	-0.229	-0.129	0.1	-1.1	91.2	91.1	0.04
L_LM1_GM_124	3.493	2.172	-3.486	-2.162	7.3	9.8	88.3	88.0	0.25
L_LM1_GM_125	3.470	2.152	-3.463	-2.142	7.2	9.7	88.0	87.8	0.25
L_LM1_GM_126	3.435	2.124	-3.428	-2.115	7.1	9.6	87.8	87.5	0.25
L_LM1_GM_127	3.412	2.105	-3.405	-2.095	7.1	9.5	87.5	87.3	0.25
L_LM1_GM_128	3.385	2.082	-3.378	-2.073	7.0	9.4	87.3	87.1	0.24
L_LM1_GM_129	0.763	0.455	-0.762	-0.455	1.1	-0.1	87.1	86.9	0.14
L_LM1_GM_13	0.214	0.119	-0.214	-0.120	0.1	-1.1	91.1	91.1	0.04
L_LM1_GM_130	0.734	0.437	-0.733	-0.438	1.0	-0.1	86.9	86.8	0.14
L_LM1_GM_133	0.687	0.408	-0.686	-0.409	0.9	-0.2	86.8	86.6	0.13
L_LM1_GM_134	0.658	0.391	-0.658	-0.391	0.8	-0.3	86.6	86.5	0.12
L_LM1_GM_135	0.612	0.362	-0.611	-0.362	0.7	-0.4	86.5	86.4	0.11
L_LM1_GM_136	0.565	0.333	-0.565	-0.334	0.6	-0.5	86.4	86.3	0.11
L_LM1_GM_137	0.537	0.316	-0.536	-0.317	0.6	-0.5	86.3	86.2	0.10
L_LM1_GM_138	0.151	0.091	-0.151	-0.092	0.0	-1.0	87.1	87.0	0.03
L_LM1_GM_139	0.105	0.063	-0.105	-0.064	0.0	-1.0	87.0	87.0	0.02
L_LM1_GM_140	0.089	0.054	-0.089	-0.055	0.0	-1.0	87.0	87.0	0.02
L_LM1_GM_143	0.061	0.037	-0.061	-0.038	0.0	-1.0	87.0	87.0	0.01
L_LM1_GM_144	0.046	0.028	-0.046	-0.029	0.0	-1.0	87.0	87.0	0.01
L_LM1_GM_150	2.419	1.497	-2.415	-1.493	3.6	4.6	87.1	86.9	0.18
L_LM1_GM_151	-2.102	-1.291	2.105	1.294	2.8	3.4	86.2	86.4	0.15
L_LM1_GM_152	-2.120	-1.304	2.123	1.307	2.8	3.4	86.4	86.5	0.15
L_LM1_GM_153	-2.301	-1.416	2.304	1.420	3.3	4.1	86.5	86.7	0.17
L_LM1_GM_154	-2.396	-1.478	2.399	1.483	3.6	4.5	86.7	86.9	0.17
L_LM1_GM_16	-0.214	-0.121	0.214	0.120	0.1	-1.1	91.1	91.1	0.04
L_LM1_GM_160	0.133	0.080	-0.133	-0.081	0.0	-1.0	86.5	86.5	0.03
L_LM1_GM_161	-0.028	-0.018	0.028	0.017	0.0	-1.0	86.5	86.5	0.01
L_LM1_GM_162	-0.056	-0.035	0.056	0.034	0.0	-1.0	86.5	86.5	0.01
L_LM1_GM_163	-0.071	-0.044	0.071	0.043	0.0	-1.0	86.5	86.5	0.01
L_LM1_GM_164	-0.117	-0.072	0.117	0.071	0.0	-1.0	86.5	86.5	0.02
L_LM1_GM_166	0.491	0.288	-0.490	-0.288	0.5	-0.6	86.2	86.1	0.09
L_LM1_GM_168	0.470	0.275	-0.469	-0.275	0.4	-0.7	86.1	86.0	0.09

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_169	0.449	0.263	-0.449	-0.263	0.4	-0.7	86.0	85.9	0.08
L_LM1_GM_17	-0.050	-0.028	0.050	0.027	0.0	-1.1	91.0	91.0	0.01
L_LM1_GM_172	0.428	0.251	-0.428	-0.251	0.4	-0.7	85.9	85.9	0.08
L_LM1_GM_174	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.8	85.8	0.00
L_LM1_GM_175	-0.041	-0.026	0.041	0.025	0.0	-1.0	85.8	85.8	0.01
L_LM1_GM_176	0.081	0.048	-0.081	-0.049	0.0	-1.0	85.8	85.8	0.02
L_LM1_GM_177	0.061	0.036	-0.061	-0.037	0.0	-1.0	85.8	85.8	0.01
L_LM1_GM_178	0.041	0.024	-0.041	-0.025	0.0	-1.0	85.8	85.8	0.01
L_LM1_GM_179	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.8	85.8	0.00
L_LM1_GM_18	-0.157	-0.089	0.157	0.088	0.0	-1.1	91.0	91.0	0.03
L_LM1_GM_181	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.8	85.8	0.00
L_LM1_GM_183	-0.163	-0.097	0.164	0.096	0.1	-1.0	85.8	85.9	0.03
L_LM1_GM_185	0.123	0.072	-0.123	-0.073	0.0	-1.0	85.8	85.8	0.02
L_LM1_GM_187	-0.264	-0.156	0.264	0.155	0.1	-0.9	85.8	85.9	0.05
L_LM1_GM_189	0.244	0.143	-0.244	-0.144	0.1	-0.9	85.8	85.8	0.05
L_LM1_GM_19	0.195	0.109	-0.194	-0.110	0.1	-1.1	91.1	91.0	0.03
L_LM1_GM_190	0.223	0.131	-0.223	-0.132	0.1	-0.9	85.8	85.7	0.04
L_LM1_GM_191	0.203	0.119	-0.203	-0.120	0.1	-0.9	85.7	85.7	0.04
L_LM1_GM_192	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.7	85.7	0.00
L_LM1_GM_194	0.162	0.096	-0.162	-0.097	0.1	-1.0	85.7	85.6	0.03
L_LM1_GM_196	0.142	0.084	-0.142	-0.085	0.0	-1.0	85.6	85.6	0.03
L_LM1_GM_197	0.122	0.072	-0.122	-0.073	0.0	-1.0	85.6	85.6	0.02
L_LM1_GM_198	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.6	85.6	0.00
L_LM1_GM_20	0.171	0.095	-0.171	-0.096	0.0	-1.1	91.0	91.0	0.03
L_LM1_GM_203	0.081	0.048	-0.081	-0.049	0.0	-0.7	85.6	85.6	0.01
L_LM1_GM_204	-0.020	-0.013	0.020	0.012	0.0	-0.7	85.6	85.6	0.00
L_LM1_GM_205	-0.040	-0.025	0.040	0.024	0.0	-0.7	85.6	85.6	0.00
L_LM1_GM_206	-0.061	-0.037	0.061	0.036	0.0	-0.7	85.6	85.6	0.01
L_LM1_GM_208	-2.051	-1.255	2.054	1.258	2.6	3.2	85.9	86.1	0.15
L_LM1_GM_21	0.035	0.018	-0.035	-0.020	0.0	-1.1	91.0	90.9	0.01
L_LM1_GM_210	2.035	1.245	-2.033	-1.242	2.6	3.1	85.9	85.8	0.15
L_LM1_GM_211	1.987	1.213	-1.985	-1.210	2.5	3.0	85.8	85.6	0.15
L_LM1_GM_212	1.957	1.192	-1.954	-1.189	2.4	2.9	85.6	85.5	0.14
L_LM1_GM_213	1.927	1.172	-1.924	-1.169	2.3	2.8	85.5	85.3	0.14
L_LM1_GM_214	1.897	1.151	-1.894	-1.148	2.3	2.7	85.3	85.2	0.14
L_LM1_GM_215	1.867	1.131	-1.865	-1.128	2.2	2.6	85.2	85.1	0.14
L_LM1_GM_217	1.837	1.110	-1.835	-1.108	2.1	2.5	85.1	84.9	0.14

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_219	1.815	1.095	-1.812	-1.093	2.1	2.5	84.9	84.8	0.13
L_LM1_GM_22	0.023	0.012	-0.023	-0.013	0.0	-1.1	90.9	90.9	0.00
L_LM1_GM_220	1.792	1.080	-1.790	-1.078	2.1	2.4	84.8	84.7	0.13
L_LM1_GM_221	1.770	1.065	-1.768	-1.062	2.0	2.3	84.7	84.5	0.13
L_LM1_GM_222	1.748	1.049	-1.746	-1.047	2.0	2.3	84.5	84.4	0.13
L_LM1_GM_223	0.040	0.023	-0.040	-0.024	0.0	-1.0	84.4	84.4	0.01
L_LM1_GM_224	0.020	0.012	-0.020	-0.013	0.0	-1.0	84.4	84.4	0.00
L_LM1_GM_225	1.685	1.011	-1.683	-1.009	1.8	2.1	84.4	84.3	0.12
L_LM1_GM_226	1.663	0.996	-1.661	-0.994	1.8	2.0	84.3	84.2	0.12
L_LM1_GM_229	1.641	0.981	-1.639	-0.979	1.7	2.0	84.2	84.0	0.12
L_LM1_GM_23	0.003	0.001	-0.003	-0.002	0.0	-1.1	90.9	90.9	0.00
L_LM1_GM_230	-1.617	-0.964	1.619	0.966	1.7	1.9	83.9	84.0	0.12
L_LM1_GM_231	1.597	0.951	-1.595	-0.950	1.7	1.8	83.9	83.8	0.12
L_LM1_GM_232	-1.574	-0.935	1.575	0.937	1.6	1.8	83.7	83.8	0.12
L_LM1_GM_233	1.553	0.922	-1.552	-0.920	1.6	1.7	83.7	83.6	0.12
L_LM1_GM_234	-1.530	-0.906	1.532	0.908	1.5	1.7	83.5	83.6	0.11
L_LM1_GM_235	1.510	0.893	-1.508	-0.891	1.5	1.6	83.5	83.3	0.11
L_LM1_GM_236	-0.040	-0.024	0.040	0.023	0.0	-1.0	83.3	83.3	0.01
L_LM1_GM_237	0.020	0.012	-0.020	-0.013	0.0	-1.0	83.3	83.3	0.00
L_LM1_GM_238	1.448	0.855	-1.447	-0.853	1.4	1.4	83.3	83.2	0.11
L_LM1_GM_241	1.427	0.841	-1.425	-0.840	1.3	1.4	83.2	83.1	0.11
L_LM1_GM_246	1.384	0.839	-1.382	-0.838	1.6	1.0	83.0	82.9	0.11
L_LM1_GM_247	1.362	0.825	-1.360	-0.824	1.6	1.0	82.9	82.8	0.11
L_LM1_GM_248	1.340	0.812	-1.339	-0.811	1.5	1.0	82.8	82.7	0.11
L_LM1_GM_251	1.318	0.798	-1.317	-0.797	1.5	0.9	82.7	82.6	0.10
L_LM1_GM_252	-1.295	-0.783	1.297	0.784	1.4	0.9	82.5	82.6	0.10
L_LM1_GM_257	1.275	0.771	-1.274	-0.770	1.4	0.9	82.5	82.4	0.10
L_LM1_GM_258	-1.210	-0.729	1.211	0.730	1.3	0.7	82.1	82.2	0.10
L_LM1_GM_259	-1.231	-0.742	1.232	0.743	1.3	0.8	82.2	82.3	0.10
L_LM1_GM_260	-1.253	-0.756	1.254	0.757	1.3	0.8	82.3	82.4	0.10
L_LM1_GM_263	0.040	0.023	-0.040	-0.024	0.0	-0.9	82.1	82.1	0.01
L_LM1_GM_264	0.020	0.012	-0.020	-0.013	0.0	-0.9	82.1	82.1	0.00
L_LM1_GM_267	1.149	0.692	-1.148	-0.691	1.1	0.6	82.1	82.0	0.09
L_LM1_GM_268	-0.140	-0.084	0.141	0.083	0.0	-0.9	81.9	81.9	0.03
L_LM1_GM_270	0.121	0.071	-0.121	-0.072	0.0	-0.9	81.9	81.9	0.02
L_LM1_GM_272	1.128	0.679	-1.127	-0.678	1.1	0.6	82.0	81.9	0.09
L_LM1_GM_275	-0.080	-0.048	0.080	0.047	0.0	-0.9	81.8	81.9	0.02

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
L_LM1_GM_276	0.100	0.059	-0.100	-0.060	0.0	-0.9	81.9	81.9	0.02
L_LM1_GM_277	-0.040	-0.025	0.040	0.024	0.0	-0.9	81.8	81.8	0.01
L_LM1_GM_278	0.060	0.036	-0.060	-0.036	0.0	-0.9	81.8	81.8	0.01
L_LM1_GM_279	0.040	0.024	-0.040	-0.025	0.0	-0.9	81.9	81.9	0.01
L_LM1_GM_280	0.020	0.012	-0.020	-0.013	0.0	-0.9	81.8	81.8	0.00
L_LM1_GM_282	0.020	0.012	-0.020	-0.013	0.0	-0.9	81.9	81.9	0.00
L_LM1_GM_286	0.061	0.036	-0.061	-0.037	0.0	-0.9	81.9	81.9	0.01
L_LM1_GM_287	-0.020	-0.013	0.020	0.012	0.0	-0.9	81.9	81.9	0.00
L_LM1_GM_288	-0.040	-0.025	0.040	0.024	0.0	-0.9	81.9	81.9	0.01
L_LM1_GM_29	0.097	0.056	-0.097	-0.057	0.0	-1.1	91.0	90.9	0.02
L_LM1_GM_292	0.886	0.535	-0.885	-0.535	0.7	0.2	81.9	81.9	0.07
L_LM1_GM_293	-0.844	-0.509	0.844	0.510	0.6	0.2	81.7	81.8	0.07
L_LM1_GM_294	-0.864	-0.522	0.865	0.522	0.6	0.2	81.8	81.9	0.07
L_LM1_GM_296	0.823	0.496	-0.823	-0.496	0.6	0.2	81.7	81.7	0.07
L_LM1_GM_3	0.755	0.434	-0.754	-0.434	1.0	-0.3	91.7	91.6	0.13
L_LM1_GM_30	0.089	0.052	-0.089	-0.053	0.0	-1.1	90.9	90.9	0.02
L_LM1_GM_300	-0.060	-0.036	0.060	0.035	0.0	-0.9	81.7	81.7	0.01
L_LM1_GM_301	-0.020	-0.013	0.020	0.012	0.0	-0.9	81.6	81.6	0.00
L_LM1_GM_302	-0.040	-0.025	0.040	0.024	0.0	-0.9	81.6	81.7	0.01
L_LM1_GM_305	0.763	0.461	-0.762	-0.461	0.5	0.1	81.7	81.6	0.06
L_LM1_GM_306	0.702	0.424	-0.701	-0.424	0.4	0.0	81.6	81.5	0.06
L_LM1_GM_309	0.040	0.024	-0.040	-0.025	0.0	-0.9	81.6	81.6	0.01
L_LM1_GM_31	-0.025	-0.016	0.025	0.015	0.0	-1.1	90.9	90.9	0.00
L_LM1_GM_310	-0.020	-0.013	0.020	0.012	0.0	-0.9	81.6	81.6	0.00
L_LM1_GM_315	-0.020	-0.013	0.020	0.012	0.0	-0.9	81.5	81.5	0.00
L_LM1_GM_316	-0.040	-0.024	0.040	0.023	0.0	-0.9	81.5	81.5	0.01
L_LM1_GM_317	-0.061	-0.037	0.061	0.036	0.0	-0.9	81.5	81.5	0.01
L_LM1_GM_318	-0.081	-0.050	0.081	0.050	0.0	-0.9	81.5	81.5	0.02
L_LM1_GM_32	-0.046	-0.028	0.046	0.027	0.0	-1.1	90.9	90.9	0.01
L_LM1_GM_323	-0.558	-0.336	0.559	0.336	0.3	-0.1	81.4	81.4	0.04
L_LM1_GM_324	-0.579	-0.349	0.579	0.349	0.3	-0.1	81.4	81.4	0.05
L_LM1_GM_325	-0.599	-0.362	0.600	0.362	0.3	-0.1	81.4	81.5	0.05
L_LM1_GM_326	0.620	0.375	-0.620	-0.375	0.3	-0.1	81.5	81.5	0.05
L_LM1_GM_33	-0.066	-0.040	0.066	0.038	0.0	-1.1	90.9	90.9	0.01
L_LM1_GM_331	-0.080	-0.048	0.080	0.047	0.0	-0.9	81.3	81.3	0.02
L_LM1_GM_332	-0.100	-0.060	0.100	0.059	0.0	-0.9	81.3	81.3	0.02
L_LM1_GM_333	-0.121	-0.073	0.121	0.072	0.0	-0.9	81.3	81.3	0.02

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_334	0.141	0.084	-0.141	-0.085	0.0	-0.9	81.4	81.3	0.03
L_LM1_GM_339	0.060	0.035	-0.060	-0.036	0.0	-0.9	81.3	81.3	0.01
L_LM1_GM_340	0.040	0.023	-0.040	-0.024	0.0	-0.9	81.3	81.2	0.01
L_LM1_GM_341	0.020	0.012	-0.020	-0.013	0.0	-0.9	81.2	81.2	0.00
L_LM1_GM_342	-0.120	-0.073	0.120	0.073	0.0	-0.4	81.2	81.2	0.01
L_LM1_GM_35	0.320	0.183	-0.320	-0.184	0.2	-1.0	91.6	91.5	0.06
L_LM1_GM_351	-0.297	-0.180	0.297	0.180	0.1	-0.3	81.3	81.3	0.02
L_LM1_GM_352	-0.020	-0.013	0.020	0.012	0.0	-0.9	81.3	81.3	0.00
L_LM1_GM_353	-0.040	-0.025	0.040	0.024	0.0	-0.9	81.3	81.3	0.01
L_LM1_GM_354	-0.060	-0.036	0.060	0.036	0.0	-0.9	81.3	81.3	0.01
L_LM1_GM_355	-0.080	-0.048	0.080	0.047	0.0	-0.9	81.3	81.3	0.02
L_LM1_GM_356	0.101	0.060	-0.101	-0.061	0.0	-0.9	81.4	81.3	0.02
L_LM1_GM_357	0.297	0.180	-0.297	-0.180	0.1	-0.3	81.4	81.3	0.02
L_LM1_GM_359	0.277	0.168	-0.277	-0.168	0.1	-0.3	81.3	81.3	0.02
L_LM1_GM_360	0.257	0.155	-0.257	-0.156	0.1	-0.3	81.3	81.3	0.02
L_LM1_GM_361	0.237	0.143	-0.237	-0.143	0.0	-0.3	81.3	81.2	0.02
L_LM1_GM_365	-0.020	-0.013	0.020	0.012	0.0	-0.9	81.2	81.2	0.00
L_LM1_GM_366	-0.040	-0.024	0.040	0.023	0.0	-0.9	81.2	81.2	0.01
L_LM1_GM_367	-0.016	-0.010	0.016	0.010	0.0	-0.9	81.2	81.2	0.00
L_LM1_GM_37	0.293	0.167	-0.292	-0.168	0.1	-1.0	91.5	91.5	0.05
L_LM1_GM_372	-0.140	-0.085	0.140	0.085	0.0	-0.4	81.2	81.2	0.01
L_LM1_GM_373	-0.160	-0.098	0.160	0.097	0.0	-0.3	81.2	81.2	0.01
L_LM1_GM_374	0.181	0.110	-0.181	-0.111	0.0	-0.3	81.2	81.2	0.01
L_LM1_GM_376	0.100	0.060	-0.100	-0.061	0.0	-0.4	81.2	81.2	0.01
L_LM1_GM_379	-0.020	-0.012	0.020	0.012	0.0	-0.4	81.2	81.2	0.00
L_LM1_GM_38	0.275	0.157	-0.275	-0.158	0.1	-1.0	91.5	91.4	0.05
L_LM1_GM_380	0.040	0.024	-0.040	-0.025	0.0	-0.4	81.2	81.2	0.00
L_LM1_GM_381	-0.020	-0.013	0.020	0.012	0.0	-0.9	81.2	81.2	0.00
L_LM1_GM_382	0.040	0.024	-0.040	-0.025	0.0	-0.9	81.2	81.2	0.01
L_LM1_GM_39	0.261	0.150	-0.261	-0.151	0.1	-1.1	91.4	91.4	0.05
L_LM1_GM_4	0.413	0.237	-0.413	-0.238	0.3	-0.9	91.6	91.5	0.07
L_LM1_GM_40	0.250	0.144	-0.250	-0.145	0.1	-1.1	91.4	91.3	0.04
L_LM1_GM_41	0.203	0.116	-0.203	-0.117	0.1	-1.1	91.3	91.3	0.04
L_LM1_GM_42	0.199	0.114	-0.199	-0.115	0.1	-1.1	91.3	91.3	0.04
L_LM1_GM_43	0.195	0.113	-0.195	-0.114	0.1	-1.1	91.3	91.2	0.03
L_LM1_GM_45	0.167	0.096	-0.167	-0.097	0.0	-1.1	91.2	91.2	0.03
L_LM1_GM_46	0.139	0.079	-0.138	-0.080	0.0	-1.1	91.2	91.2	0.02

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_47	-0.110	-0.064	0.110	0.063	0.0	-1.1	91.1	91.1	0.02
L_LM1_GM_48	0.131	0.075	-0.131	-0.076	0.0	-1.1	91.2	91.1	0.02
L_LM1_GM_49	0.082	0.046	-0.082	-0.048	0.0	-1.1	91.1	91.1	0.01
L_LM1_GM_5	0.373	0.213	-0.373	-0.214	0.2	-1.0	91.5	91.4	0.07
L_LM1_GM_50	0.054	0.029	-0.054	-0.031	0.0	-1.1	91.1	91.1	0.01
L_LM1_GM_55	0.042	0.023	-0.042	-0.025	0.0	-1.1	91.1	91.1	0.01
L_LM1_GM_56	-0.006	-0.004	0.006	0.002	0.0	-1.2	91.1	91.1	0.00
L_LM1_GM_57	-0.034	-0.020	0.034	0.019	0.0	-1.1	91.1	91.1	0.01
L_LM1_GM_6	0.370	0.212	-0.370	-0.213	0.2	-1.0	91.4	91.4	0.07
L_LM1_GM_61	-0.171	-0.104	0.172	0.102	0.1	-1.1	91.7	91.8	0.03
L_LM1_GM_62	0.166	0.100	-0.166	-0.101	0.0	-1.1	91.7	91.7	0.03
L_LM1_GM_63	0.119	0.072	-0.119	-0.073	0.0	-1.1	91.7	91.7	0.02
L_LM1_GM_67	0.077	0.046	-0.077	-0.047	0.0	-1.2	91.7	91.7	0.01
L_LM1_GM_68	0.049	0.029	-0.049	-0.030	0.0	-1.2	91.7	91.7	0.01
L_LM1_GM_69	0.047	0.028	-0.047	-0.030	0.0	-1.2	91.7	91.7	0.01
L_LM1_GM_7	0.328	0.186	-0.328	-0.187	0.2	-1.0	91.4	91.3	0.06
L_LM1_GM_73	-0.423	-0.251	0.424	0.250	0.3	-0.9	91.8	91.9	0.07
L_LM1_GM_74	-0.044	-0.025	0.044	0.024	0.0	-1.2	91.7	91.7	0.01
L_LM1_GM_75	-0.217	-0.127	0.217	0.126	0.1	-1.1	91.7	91.8	0.04
L_LM1_GM_76	0.032	0.018	-0.032	-0.019	0.0	-1.2	91.7	91.7	0.01
L_LM1_GM_77	0.162	0.096	-0.162	-0.097	0.0	-1.1	91.7	91.7	0.03
L_LM1_GM_78	-0.028	-0.018	0.028	0.017	0.0	-1.2	91.7	91.7	0.01
L_LM1_GM_79	0.150	0.090	-0.150	-0.091	0.0	-1.1	91.7	91.7	0.03
L_LM1_GM_8	0.301	0.170	-0.301	-0.171	0.2	-1.0	91.3	91.3	0.05
L_LM1_GM_80	-0.075	-0.046	0.075	0.044	0.0	-1.2	91.7	91.7	0.01
L_LM1_GM_81	-0.103	-0.063	0.103	0.061	0.0	-1.2	91.7	91.7	0.02
L_LM1_GM_83	0.047	0.028	-0.046	-0.029	0.0	-1.2	91.7	91.6	0.01
L_LM1_GM_9	0.279	0.157	-0.279	-0.159	0.1	-1.0	91.3	91.2	0.05
L_LM1_GM_93	-3.945	-2.527	3.954	2.539	8.8	11.9	91.5	91.7	0.28
L_LM1_GM_95	-3.908	-2.497	3.916	2.509	8.7	11.7	91.2	91.5	0.28
L_LM1_GM_96	3.879	2.479	-3.871	-2.467	8.6	11.6	91.2	90.9	0.27
L_LM1_GM_97	3.843	2.449	-3.834	-2.438	8.5	11.4	90.9	90.7	0.27
L_LM1_GM_98	3.806	2.420	-3.798	-2.409	8.3	11.2	90.7	90.4	0.27
L_LM1_GM_99	3.769	2.391	-3.761	-2.380	8.2	11.1	90.4	90.1	0.27
L_LMT1_GMT1	-0.334	-0.198	0.335	0.198	0.2	-0.5	84.4	84.5	0.05
L_LMT1_GMT100	0.083	0.050	-0.083	-0.051	0.0	-0.6	83.2	83.2	0.01
L_LMT1_GMT101	0.052	0.031	-0.052	-0.031	0.0	-0.7	83.2	83.2	0.01

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT1_GMT102	0.198	0.114	-0.198	-0.114	0.1	-0.6	83.3	83.2	0.03
L_LMT1_GMT105	0.027	0.015	-0.027	-0.016	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT106	0.016	0.010	-0.016	-0.010	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT109	-0.005	-0.003	0.005	0.002	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT11	-0.008	-0.005	0.008	0.004	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT110	0.115	0.065	-0.115	-0.066	0.0	-0.6	83.2	83.2	0.02
L_LMT1_GMT116	-0.015	-0.009	0.015	0.009	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT117	0.110	0.063	-0.110	-0.064	0.0	-0.6	83.2	83.2	0.02
L_LMT1_GMT118	-0.045	-0.028	0.045	0.027	0.0	-0.7	83.2	83.2	0.01
L_LMT1_GMT12	0.234	0.136	-0.234	-0.136	0.1	-0.6	84.4	84.3	0.04
L_LMT1_GMT121	-0.047	-0.029	0.047	0.029	0.0	-0.7	83.2	83.2	0.01
L_LMT1_GMT122	0.065	0.036	-0.065	-0.037	0.0	-0.7	83.2	83.2	0.01
L_LMT1_GMT123	-0.004	-0.003	0.004	0.002	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT124	0.018	0.008	-0.018	-0.009	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT125	-0.014	-0.009	0.014	0.008	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT126	0.014	0.007	-0.014	-0.008	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT13	-0.018	-0.011	0.018	0.010	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT130	0.074	0.045	-0.074	-0.046	0.0	-0.7	83.6	83.6	0.01
L_LMT1_GMT131	0.074	0.046	-0.074	-0.046	0.0	-0.7	83.6	83.6	0.01
L_LMT1_GMT132	0.029	0.018	-0.029	-0.019	0.0	-0.7	83.6	83.6	0.00
L_LMT1_GMT135	-0.045	-0.029	0.045	0.028	0.0	-0.7	83.5	83.5	0.01
L_LMT1_GMT136	0.447	0.279	-0.446	-0.279	0.4	-0.4	83.6	83.5	0.07
L_LMT1_GMT14	-0.226	-0.132	0.226	0.132	0.1	-0.6	84.3	84.3	0.04
L_LMT1_GMT140	0.401	0.251	-0.401	-0.252	0.3	-0.4	83.5	83.5	0.06
L_LMT1_GMT142	0.345	0.216	-0.345	-0.216	0.2	-0.5	83.5	83.4	0.06
L_LMT1_GMT145	-0.035	-0.023	0.035	0.022	0.0	-0.7	83.3	83.4	0.01
L_LMT1_GMT146	0.294	0.184	-0.294	-0.185	0.2	-0.5	83.4	83.4	0.05
L_LMT1_GMT147	-0.054	-0.035	0.054	0.034	0.0	-0.7	83.3	83.3	0.01
L_LMT1_GMT148	0.259	0.163	-0.259	-0.163	0.1	-0.6	83.4	83.3	0.04
L_LMT1_GMT152	0.205	0.129	-0.205	-0.130	0.1	-0.6	83.3	83.3	0.03
L_LMT1_GMT153	-0.165	-0.105	0.165	0.105	0.1	-0.6	83.2	83.3	0.03
L_LMT1_GMT156	0.138	0.088	-0.138	-0.088	0.0	-0.6	83.2	83.2	0.02
L_LMT1_GMT157	-0.073	-0.045	0.073	0.045	0.0	-0.7	83.2	83.2	0.01
L_LMT1_GMT160	-0.015	-0.009	0.015	0.009	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT161	0.019	0.009	-0.019	-0.010	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT162	-0.004	-0.003	0.004	0.002	0.0	-0.7	83.2	83.2	0.00
L_LMT1_GMT163	0.004	0.001	-0.004	-0.002	0.0	-0.7	83.2	83.2	0.00

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT1_GMT18	0.208	0.122	-0.208	-0.123	0.1	-0.6	84.3	84.3	0.03
L_LMT1_GMT19	0.029	0.017	-0.029	-0.017	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT2	-0.071	-0.046	0.071	0.045	0.0	-0.7	84.4	84.4	0.01
L_LMT1_GMT22	-0.026	-0.017	0.026	0.016	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT23	0.026	0.015	-0.026	-0.016	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT24	0.179	0.106	-0.179	-0.107	0.1	-0.6	84.3	84.2	0.03
L_LMT1_GMT25	0.070	0.042	-0.070	-0.043	0.0	-0.7	84.2	84.2	0.01
L_LMT1_GMT26	0.108	0.065	-0.108	-0.065	0.0	-0.7	84.2	84.2	0.02
L_LMT1_GMT30	-0.070	-0.043	0.070	0.043	0.0	-0.7	84.2	84.2	0.01
L_LMT1_GMT32	0.063	0.039	-0.063	-0.040	0.0	-0.7	84.2	84.2	0.01
L_LMT1_GMT33	0.025	0.015	-0.025	-0.016	0.0	-0.7	84.2	84.2	0.00
L_LMT1_GMT37	-0.108	-0.066	0.108	0.065	0.0	-0.7	84.2	84.2	0.02
L_LMT1_GMT38	-0.082	-0.051	0.082	0.050	0.0	-0.7	84.2	84.2	0.01
L_LMT1_GMT39	-0.106	-0.065	0.106	0.065	0.0	-0.7	84.2	84.2	0.02
L_LMT1_GMT42	0.054	0.033	-0.054	-0.034	0.0	-0.7	84.2	84.2	0.01
L_LMT1_GMT43	-0.009	-0.005	0.009	0.005	0.0	-0.7	84.2	84.2	0.00
L_LMT1_GMT44	-1.226	-0.745	1.229	0.746	2.7	1.3	84.3	84.5	0.19
L_LMT1_GMT48	-0.083	-0.050	0.083	0.049	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT49	-0.013	-0.008	0.013	0.007	0.0	-0.7	84.2	84.2	0.00
L_LMT1_GMT5	-0.029	-0.019	0.029	0.018	0.0	-0.7	84.4	84.4	0.00
L_LMT1_GMT50	-0.058	-0.035	0.058	0.034	0.0	-0.7	84.2	84.3	0.01
L_LMT1_GMT53	-0.045	-0.029	0.045	0.028	0.0	-0.7	84.2	84.2	0.01
L_LMT1_GMT54	0.045	0.028	-0.045	-0.028	0.0	-0.7	84.2	84.2	0.01
L_LMT1_GMT57	-0.016	-0.010	0.016	0.010	0.0	-0.7	84.1	84.1	0.00
L_LMT1_GMT58	1.144	0.695	-1.141	-0.694	2.3	1.0	84.3	84.1	0.18
L_LMT1_GMT6	0.263	0.153	-0.263	-0.154	0.1	-0.6	84.4	84.4	0.04
L_LMT1_GMT62	-0.005	-0.003	0.005	0.002	0.0	-0.7	83.9	83.9	0.00
L_LMT1_GMT63	-0.062	-0.039	0.062	0.039	0.0	-0.7	83.9	83.9	0.01
L_LMT1_GMT64	-0.062	-0.039	0.062	0.038	0.0	-0.7	83.9	83.9	0.01
L_LMT1_GMT65	1.125	0.685	-1.123	-0.684	2.3	1.0	84.1	83.9	0.18
L_LMT1_GMT68	-0.067	-0.043	0.067	0.042	0.0	-0.7	83.7	83.7	0.01
L_LMT1_GMT69	1.060	0.646	-1.058	-0.645	2.0	0.8	83.9	83.7	0.17
L_LMT1_GMT70	0.992	0.603	-0.990	-0.602	1.8	0.6	83.7	83.6	0.16
L_LMT1_GMT71	0.470	0.278	-0.469	-0.278	0.4	-0.4	83.6	83.5	0.07
L_LMT1_GMT75	-0.107	-0.067	0.107	0.066	0.0	-0.6	83.5	83.5	0.02
L_LMT1_GMT76	0.107	0.067	-0.107	-0.067	0.0	-0.6	83.5	83.5	0.02
L_LMT1_GMT77	-0.034	-0.021	0.034	0.021	0.0	-0.7	83.5	83.5	0.01

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT1_GMT80	-0.044	-0.029	0.044	0.028	0.0	-0.7	83.5	83.5	0.01
L_LMT1_GMT81	0.363	0.212	-0.362	-0.213	0.2	-0.5	83.5	83.5	0.06
L_LMT1_GMT82	-0.016	-0.010	0.016	0.009	0.0	-0.7	83.4	83.4	0.00
L_LMT1_GMT83	0.318	0.185	-0.318	-0.185	0.2	-0.5	83.5	83.4	0.05
L_LMT1_GMT88	-0.030	-0.019	0.030	0.018	0.0	-0.7	83.4	83.4	0.00
L_LMT1_GMT89	0.302	0.176	-0.302	-0.176	0.2	-0.5	83.4	83.4	0.05
L_LMT1_GMT90	-0.015	-0.010	0.015	0.009	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT91	-0.272	-0.159	0.272	0.158	0.1	-0.6	83.3	83.4	0.04
L_LMT1_GMT94	-0.058	-0.038	0.058	0.037	0.0	-0.7	83.3	83.3	0.01
L_LMT1_GMT95	0.257	0.150	-0.257	-0.150	0.1	-0.6	83.3	83.3	0.04
L_LMT1_GMT99	-0.083	-0.050	0.083	0.049	0.0	-0.6	83.2	83.2	0.01
L_LMT2_GMT1	0.740	0.413	-0.739	-0.413	0.9	0.0	84.5	84.4	0.11
L_LMT2_GMT10	0.662	0.366	-0.662	-0.366	0.7	-0.1	84.1	83.9	0.10
L_LMT2_GMT101	-0.008	-0.005	0.008	0.004	0.0	-0.6	82.5	82.5	0.00
L_LMT2_GMT102	-0.256	-0.139	0.256	0.138	0.1	-0.6	82.5	82.5	0.04
L_LMT2_GMT107	-0.013	-0.008	0.013	0.007	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT108	-0.002	-0.001	0.002	0.000	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT109	-0.002	0.000	0.002	0.000	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT11	0.032	0.020	-0.032	-0.020	0.0	-0.7	83.9	83.9	0.01
L_LMT2_GMT110	-0.014	-0.007	0.014	0.006	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT111	0.248	0.135	-0.248	-0.135	0.1	-0.6	82.5	82.4	0.04
L_LMT2_GMT116	-0.009	-0.006	0.009	0.005	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT117	-0.027	-0.018	0.027	0.017	0.0	-0.6	82.3	82.4	0.00
L_LMT2_GMT118	-0.225	-0.125	0.225	0.124	0.1	-0.6	82.4	82.4	0.04
L_LMT2_GMT119	0.234	0.129	-0.234	-0.129	0.1	-0.6	82.4	82.4	0.04
L_LMT2_GMT120	-0.001	0.000	0.001	0.000	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT121	-0.003	-0.002	0.003	0.001	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT122	-0.196	-0.109	0.196	0.109	0.1	-0.6	82.3	82.3	0.03
L_LMT2_GMT123	0.197	0.108	-0.197	-0.109	0.1	-0.6	82.4	82.3	0.03
L_LMT2_GMT126	-0.031	-0.020	0.031	0.019	0.0	-0.6	82.3	82.3	0.01
L_LMT2_GMT127	0.193	0.108	-0.193	-0.109	0.1	-0.6	82.3	82.3	0.03
L_LMT2_GMT128	-0.023	-0.014	0.023	0.014	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT129	0.162	0.089	-0.162	-0.090	0.0	-0.6	82.3	82.2	0.03
L_LMT2_GMT134	-0.049	-0.030	0.049	0.029	0.0	-0.6	82.2	82.2	0.01
L_LMT2_GMT135	-0.025	-0.016	0.025	0.015	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT136	-0.025	-0.015	0.025	0.015	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT137	0.024	0.015	-0.024	-0.015	0.0	-0.6	82.2	82.2	0.00

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT2_GMT139	0.139	0.076	-0.139	-0.077	0.0	-0.6	82.2	82.2	0.02
L_LMT2_GMT14	0.630	0.347	-0.629	-0.347	0.7	-0.2	83.9	83.9	0.10
L_LMT2_GMT144	-0.023	-0.014	0.023	0.014	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT145	-0.002	-0.001	0.002	0.001	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT146	-0.002	-0.001	0.002	0.000	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT147	0.025	0.013	-0.025	-0.014	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT15	-0.601	-0.329	0.602	0.329	0.6	-0.2	83.8	83.9	0.09
L_LMT2_GMT154	-0.003	-0.002	0.003	0.001	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT155	-0.025	-0.016	0.025	0.015	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT156	-0.002	-0.001	0.002	0.000	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT157	-0.037	-0.020	0.037	0.020	0.0	-0.6	82.2	82.2	0.01
L_LMT2_GMT158	-0.062	-0.035	0.062	0.034	0.0	-0.6	82.2	82.2	0.01
L_LMT2_GMT159	0.065	0.035	-0.065	-0.035	0.0	-0.6	82.2	82.2	0.01
L_LMT2_GMT16	0.556	0.301	-0.555	-0.301	0.5	-0.3	83.8	83.7	0.08
L_LMT2_GMT163	0.035	0.020	-0.035	-0.021	0.0	-0.6	82.2	82.2	0.01
L_LMT2_GMT164	-0.027	-0.017	0.027	0.016	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT165	0.029	0.017	-0.029	-0.017	0.0	-0.6	82.2	82.2	0.00
L_LMT2_GMT17	-0.520	-0.278	0.520	0.278	0.5	-0.3	83.6	83.7	0.08
L_LMT2_GMT18	0.510	0.272	-0.510	-0.273	0.4	-0.3	83.6	83.5	0.08
L_LMT2_GMT2	0.739	0.413	-0.738	-0.413	0.9	0.0	84.4	84.3	0.11
L_LMT2_GMT20	-0.509	-0.273	0.510	0.273	0.4	-0.3	83.4	83.5	0.08
L_LMT2_GMT23	0.485	0.258	-0.484	-0.258	0.4	-0.4	83.4	83.4	0.07
L_LMT2_GMT24	0.003	0.001	-0.003	-0.002	0.0	-0.7	83.4	83.4	0.00
L_LMT2_GMT26	0.481	0.257	-0.481	-0.257	0.4	-0.4	83.4	83.3	0.07
L_LMT2_GMT27	0.465	0.247	-0.464	-0.247	0.4	-0.4	83.3	83.2	0.07
L_LMT2_GMT30	0.451	0.238	-0.450	-0.239	0.3	-0.4	83.2	83.2	0.07
L_LMT2_GMT31	-0.424	-0.223	0.424	0.222	0.3	-0.4	83.1	83.2	0.06
L_LMT2_GMT34	0.409	0.213	-0.409	-0.214	0.3	-0.4	83.1	83.0	0.06
L_LMT2_GMT35	0.005	0.002	-0.005	-0.003	0.0	-0.7	83.0	83.0	0.00
L_LMT2_GMT38	0.404	0.211	-0.404	-0.212	0.3	-0.5	83.0	83.0	0.06
L_LMT2_GMT39	0.399	0.209	-0.399	-0.209	0.3	-0.5	83.0	82.9	0.06
L_LMT2_GMT4	0.713	0.397	-0.712	-0.397	0.9	0.0	84.3	84.2	0.11
L_LMT2_GMT40	0.397	0.208	-0.396	-0.208	0.3	-0.5	82.9	82.8	0.06
L_LMT2_GMT41	0.094	0.047	-0.094	-0.048	0.0	-0.6	82.8	82.8	0.01
L_LMT2_GMT44	0.094	0.048	-0.094	-0.049	0.0	-0.6	82.8	82.8	0.01
L_LMT2_GMT45	0.004	0.002	-0.004	-0.003	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT48	0.090	0.047	-0.090	-0.048	0.0	-0.6	82.8	82.8	0.01

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT2_GMT49	0.003	0.001	-0.003	-0.002	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT54	0.087	0.046	-0.087	-0.047	0.0	-0.6	82.8	82.8	0.01
L_LMT2_GMT55	-0.028	-0.018	0.028	0.017	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT56	-0.071	-0.038	0.071	0.037	0.0	-0.6	82.8	82.8	0.01
L_LMT2_GMT57	0.016	0.009	-0.016	-0.010	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT6	0.667	0.368	-0.666	-0.368	0.8	-0.1	84.2	84.1	0.10
L_LMT2_GMT66	0.043	0.021	-0.043	-0.022	0.0	-0.6	82.8	82.8	0.01
L_LMT2_GMT67	-0.007	-0.005	0.007	0.004	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT68	-0.002	-0.001	0.002	0.001	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT69	-0.003	-0.002	0.003	0.001	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT7	0.004	0.002	-0.004	-0.003	0.0	-0.7	84.1	84.1	0.00
L_LMT2_GMT70	-0.031	-0.018	0.031	0.017	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT71	-0.033	-0.018	0.033	0.017	0.0	-0.7	82.8	82.8	0.01
L_LMT2_GMT72	-0.040	-0.021	0.040	0.020	0.0	-0.6	82.8	82.8	0.01
L_LMT2_GMT73	0.003	0.001	-0.003	-0.002	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT76	-0.027	-0.018	0.027	0.017	0.0	-0.7	82.7	82.7	0.00
L_LMT2_GMT77	0.028	0.016	-0.027	-0.017	0.0	-0.7	82.8	82.7	0.00
L_LMT2_GMT80	0.302	0.161	-0.302	-0.161	0.2	-0.5	82.8	82.8	0.05
L_LMT2_GMT81	0.299	0.159	-0.299	-0.160	0.2	-0.5	82.8	82.8	0.05
L_LMT2_GMT88	0.292	0.156	-0.292	-0.156	0.1	-0.5	82.8	82.7	0.05
L_LMT2_GMT89	0.012	0.007	-0.012	-0.008	0.0	-0.7	82.7	82.7	0.00
L_LMT2_GMT92	0.280	0.149	-0.280	-0.150	0.1	-0.6	82.7	82.7	0.04
L_LMT2_GMT93	0.267	0.142	-0.267	-0.142	0.1	-0.6	82.7	82.6	0.04
L_LMT2_GMT95	0.259	0.137	-0.259	-0.138	0.1	-0.6	82.6	82.6	0.04
L_LMT2_GMT96	0.256	0.137	-0.256	-0.137	0.1	-0.6	82.6	82.5	0.04
L_LMT2_GMT97	0.000	0.000	0.000	-0.001	0.0	-0.6	82.5	82.5	0.00
L_LMT2_GMT98	0.256	0.138	-0.256	-0.138	0.1	-0.6	82.5	82.5	0.04
L_LY02_01-3	1.855	1.179	-1.853	-1.177	2.4	1.4	103.0	102.8	0.15
L_LY02_11-3	1.836	1.149	-1.834	-1.148	2.4	1.4	102.6	102.4	0.15
L_LY02_12-3	1.833	1.147	-1.830	-1.146	2.4	1.4	102.4	102.3	0.15
L_LY02_14-3	1.751	1.093	-1.749	-1.092	2.2	1.2	102.3	102.1	0.14
L_LY02_15-3	1.733	1.082	-1.731	-1.081	2.1	1.2	102.1	102.0	0.14
L_LY02_16-3	-0.201	-0.133	0.201	0.132	0.0	-0.7	100.9	100.9	0.02
L_LY02_18-3	1.670	1.040	-1.668	-1.039	2.0	1.0	102.0	101.9	0.14
L_LY02_19-3	0.099	0.063	-0.099	-0.064	0.0	-0.7	100.9	100.9	0.01
L_LY02_21-3	-0.096	-0.063	0.096	0.063	0.0	-0.7	100.9	100.9	0.01
L_LY02_2-3	1.821	1.157	-1.819	-1.156	2.3	1.3	102.8	102.7	0.15

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LY02_23-3	-0.154	-0.078	0.154	0.077	0.0	-0.7	100.9	100.9	0.01
L_LY02_24-3	0.053	0.012	-0.053	-0.013	0.0	-0.7	100.9	100.9	0.00
L_LY02_26-3	0.018	-0.010	-0.018	0.009	0.0	-0.7	100.9	100.9	0.00
L_LY02_27-3	-0.213	-0.137	0.213	0.136	0.0	-0.7	100.9	100.9	0.02
L_LY02_29-3	0.115	0.074	-0.115	-0.074	0.0	-0.7	100.9	100.9	0.01
L_LY02_30-3	0.050	0.032	-0.050	-0.033	0.0	-0.7	100.9	100.9	0.00
L_LY02_32-3	-0.589	-0.358	0.590	0.358	0.2	-0.5	100.9	101.0	0.05
L_LY02_3-3	1.950	1.221	-1.948	-1.219	1.6	1.5	103.0	102.9	0.11
L_LY02_33-3	-0.652	-0.401	0.652	0.400	0.3	-0.4	101.0	101.0	0.05
L_LY02_35-3	-0.744	-0.458	0.744	0.458	0.4	-0.4	101.1	101.2	0.06
L_LY02_37-3	0.691	0.424	-0.691	-0.425	0.3	-0.4	101.1	101.0	0.06
L_LY02_38-3	1.650	1.027	-1.648	-1.026	1.9	1.0	101.9	101.7	0.13
L_LY02_40-3	1.618	1.007	-1.616	-1.006	1.9	0.9	101.7	101.6	0.13
L_LY02_41-3	1.208	0.750	-1.207	-0.750	1.0	0.2	101.6	101.5	0.10
L_LY02_4-3	0.013	0.007	-0.013	-0.008	0.0	-0.7	102.9	102.9	0.00
L_LY02_43-3	1.186	0.736	-1.185	-0.736	1.0	0.2	101.5	101.4	0.10
L_LY02_44-3	1.152	0.715	-1.151	-0.715	1.0	0.1	101.4	101.3	0.09
L_LY02_45-3	0.749	0.460	-0.749	-0.461	0.4	-0.4	101.2	101.2	0.06
L_LY02_47-3	1.084	0.671	-1.083	-0.671	0.8	0.0	101.3	101.2	0.09
L_LY02_48-3	0.305	0.192	-0.304	-0.193	0.1	-0.7	101.2	101.2	0.02
L_LY02_50-3	0.288	0.183	-0.288	-0.183	0.1	-0.7	101.2	101.2	0.02
L_LY02_51-3	0.218	0.139	-0.218	-0.139	0.0	-0.7	101.2	101.2	0.02
L_LY02_53-3	0.029	0.016	-0.029	-0.017	0.0	-0.7	101.2	101.2	0.00
L_LY02_54-3	0.023	0.014	-0.023	-0.015	0.0	-0.7	101.2	101.1	0.00
L_LY02_56-3	-0.055	-0.035	0.055	0.035	0.0	-0.7	101.1	101.1	0.00
L_LY02_57-3	0.105	0.067	-0.105	-0.067	0.0	-0.7	101.2	101.1	0.01
L_LY02_59-3	0.333	0.206	-0.333	-0.207	0.1	-0.6	101.6	101.6	0.03
L_LY02_60-3	0.278	0.172	-0.278	-0.172	0.1	-0.7	101.6	101.5	0.02
L_LY02_62-3	0.031	0.018	-0.031	-0.019	0.0	-0.7	101.5	101.5	0.00
L_LY02_6-3	0.025	0.014	-0.025	-0.015	0.0	-0.7	102.9	102.9	0.00
L_LY02_63-3	0.014	0.008	-0.014	-0.009	0.0	-0.7	101.5	101.5	0.00
L_LY02_65-3	0.186	0.116	-0.186	-0.117	0.0	-0.7	101.5	101.5	0.02
L_LY02_66-3	0.115	0.071	-0.115	-0.072	0.0	-0.7	101.5	101.5	0.01
L_LY02_68-3	0.096	0.060	-0.096	-0.061	0.0	-0.7	101.5	101.5	0.01
L_LY02_69-3	0.052	0.033	-0.052	-0.034	0.0	-0.7	101.5	101.5	0.00
L_LY02_71-3	0.038	0.023	-0.038	-0.024	0.0	-0.7	100.9	100.9	0.00
L_LY02_72-3	0.025	0.015	-0.025	-0.015	0.0	-0.7	100.9	100.9	0.00

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LY02_8-3	1.885	1.181	-1.883	-1.179	2.5	1.5	102.9	102.7	0.15
L_LY02_9-3	1.865	1.168	-1.863	-1.167	2.4	1.4	102.7	102.6	0.15
L_MR1_GMP_1	-1.838	-1.126	1.844	1.129	5.8	2.8	102.7	103.0	0.34
L_MR1_GMP_10	1.387	0.846	-1.384	-0.845	3.4	1.1	100.3	100.0	0.26
L_MR1_GMP_11	1.315	0.801	-1.312	-0.800	3.1	0.9	100.0	99.7	0.25
L_MR1_GMP_12	1.278	0.778	-1.275	-0.777	3.0	0.8	99.7	99.5	0.24
L_MR1_GMP_13	0.606	0.369	-0.605	-0.369	0.7	-0.9	99.5	99.4	0.12
L_MR1_GMP_14	0.536	0.326	-0.536	-0.327	0.5	-1.0	99.4	99.3	0.10
L_MR1_GMP_15	0.021	0.012	-0.021	-0.014	0.0	-1.3	99.3	99.3	0.00
L_MR1_GMP_16	0.446	0.270	-0.446	-0.271	0.4	-1.1	99.3	99.2	0.09
L_MR1_GMP_17	0.377	0.228	-0.377	-0.229	0.3	-1.1	99.2	99.1	0.07
L_MR1_GMP_18	0.343	0.207	-0.342	-0.208	0.2	-1.2	99.1	99.1	0.07
L_MR1_GMP_19	0.308	0.186	-0.308	-0.187	0.2	-1.2	99.1	99.0	0.06
L_MR1_GMP_21	-0.103	-0.063	0.103	0.062	0.0	-1.3	99.0	99.0	0.02
L_MR1_GMP_22	0.068	0.041	-0.068	-0.042	0.0	-1.3	99.0	98.9	0.01
L_MR1_GMP_23	0.034	0.021	-0.034	-0.022	0.0	-1.3	98.9	98.9	0.01
L_MR1_GMP_24	0.137	0.083	-0.137	-0.085	0.0	-1.3	99.0	99.0	0.03
L_MR1_GMP_25	0.068	0.041	-0.068	-0.042	0.0	-1.3	99.0	99.0	0.01
L_MR1_GMP_26	0.034	0.021	-0.034	-0.022	0.0	-1.3	99.0	99.0	0.01
L_MR1_GMP_27	0.635	0.387	-0.634	-0.388	0.6	-0.8	99.5	99.4	0.10
L_MR1_GMP_28	0.069	0.042	-0.069	-0.044	0.0	-1.3	99.4	99.4	0.01
L_MR1_GMP_29	0.069	0.042	-0.069	-0.044	0.0	-1.3	99.4	99.4	0.01
L_MR1_GMP_3	-1.780	-1.090	1.785	1.093	5.5	2.6	102.0	102.4	0.33
L_MR1_GMP_30	0.034	0.021	-0.034	-0.022	0.0	-1.3	99.4	99.4	0.01
L_MR1_GMP_31	0.034	0.021	-0.034	-0.022	0.0	-1.3	99.4	99.4	0.01
L_MR1_GMP_32	0.103	0.064	-0.103	-0.065	0.0	-1.3	99.4	99.4	0.02
L_MR1_GMP_34	-0.223	-0.134	0.223	0.133	0.1	-1.3	99.3	99.4	0.04
L_MR1_GMP_35	0.188	0.112	-0.188	-0.114	0.1	-1.3	99.3	99.3	0.04
L_MR1_GMP_36	0.154	0.092	-0.154	-0.093	0.0	-1.3	99.3	99.2	0.03
L_MR1_GMP_37	0.120	0.071	-0.120	-0.073	0.0	-1.3	99.2	99.2	0.02
L_MR1_GMP_38	0.103	0.062	-0.103	-0.063	0.0	-1.3	99.2	99.2	0.02
L_MR1_GMP_39	0.068	0.041	-0.068	-0.042	0.0	-1.3	99.2	99.2	0.01
L_MR1_GMP_4	1.750	1.071	-1.744	-1.069	5.3	2.5	102.0	101.7	0.33
L_MR1_GMP_41	0.137	0.082	-0.137	-0.083	0.0	-1.3	99.0	99.0	0.03
L_MR1_GMP_43	1.808	1.107	-1.803	-1.104	5.6	2.6	102.7	102.4	0.33
L_MR1_GMP_45	0.257	0.154	-0.257	-0.155	0.1	-1.3	99.4	99.4	0.05
L_MR1_GMP_5	1.710	1.047	-1.705	-1.044	5.1	2.3	101.7	101.4	0.32

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_MR1_GMP_6	1.636	1.000	-1.631	-0.998	4.7	2.0	101.4	101.1	0.31
L_MR1_GMP_7	1.502	0.916	-1.498	-0.914	4.0	1.5	101.1	100.8	0.28
L_MR1_GMP_8	1.463	0.892	-1.459	-0.891	3.8	1.4	100.8	100.5	0.28
L_MR1_GMP_9	1.425	0.869	-1.421	-0.868	3.6	1.3	100.5	100.3	0.27
L_MR6_GMP1	3.886	2.511	-3.859	-2.476	27.2	35.5	103.0	102.0	0.97
L_MR6_GMP10	0.047	0.029	-0.047	-0.030	0.0	-0.9	97.2	97.2	0.01
L_MR6_GMP12	0.172	0.105	-0.172	-0.106	0.0	-0.9	97.2	97.2	0.02
L_MR6_GMP13	0.025	0.015	-0.025	-0.016	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP16	0.148	0.091	-0.148	-0.092	0.0	-0.9	97.2	97.2	0.02
L_MR6_GMP17	0.026	0.016	-0.026	-0.017	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP19	0.121	0.076	-0.121	-0.077	0.0	-0.9	97.2	97.1	0.02
L_MR6_GMP2	3.843	2.465	-3.816	-2.430	27.0	35.3	102.0	101.0	0.97
L_MR6_GMP20	0.045	0.021	-0.045	-0.022	0.0	-0.9	97.2	97.2	0.01
L_MR6_GMP21	0.016	0.007	-0.016	-0.008	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP24	-0.016	-0.009	0.016	0.008	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP25	0.006	0.003	-0.006	-0.004	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP26	0.029	0.014	-0.029	-0.015	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP29	-0.029	-0.016	0.029	0.015	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP30	-0.009	-0.005	0.009	0.004	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP32	0.006	0.003	-0.006	-0.004	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP33	3.342	2.072	-3.320	-2.044	22.0	28.5	97.2	96.4	0.87
L_MR6_GMP35	-0.043	-0.026	0.043	0.025	0.0	-0.9	96.4	96.4	0.01
L_MR6_GMP36	0.029	0.017	-0.029	-0.018	0.0	-0.9	96.4	96.4	0.00
L_MR6_GMP38	3.276	2.018	-3.255	-1.991	21.5	27.8	96.4	95.5	0.86
L_MR6_GMP39	3.204	1.958	-3.183	-1.931	20.8	26.9	95.5	94.7	0.84
L_MR6_GMP4	3.787	2.412	-3.760	-2.377	26.6	34.8	101.0	100.1	0.96
L_MR6_GMP40	0.008	0.004	-0.008	-0.005	0.0	-0.9	94.7	94.7	0.00
L_MR6_GMP42	3.174	1.927	-3.154	-1.900	20.7	26.8	94.7	93.8	0.84
L_MR6_GMP43	3.107	1.870	-3.087	-1.844	20.1	26.0	93.8	93.0	0.83
L_MR6_GMP44	3.058	1.826	-3.038	-1.801	19.8	25.5	93.0	92.2	0.82
L_MR6_GMP45	-2.991	-1.757	3.010	1.782	19.4	25.1	91.4	92.2	0.81
L_MR6_GMP5	3.739	2.363	-3.712	-2.329	26.3	34.4	100.1	99.1	0.95
L_MR6_GMP6	3.699	2.321	-3.673	-2.287	26.2	34.3	99.1	98.2	0.95
L_MR6_GMP7	3.632	2.260	-3.606	-2.227	25.6	33.5	98.2	97.2	0.94
L_MR6_GMP9	0.220	0.133	-0.220	-0.134	0.1	-0.9	97.2	97.2	0.03
L_MR6_GMT1	2.951	1.725	-2.946	-1.721	4.6	3.7	90.0	89.8	0.16
L_MR6_GMT12	2.873	1.675	-2.869	-1.671	4.4	3.6	89.5	89.4	0.16

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_MR6_GMT13	2.852	1.661	-2.848	-1.657	4.3	3.5	89.4	89.2	0.15
L_MR6_GMT16	2.845	1.656	-2.841	-1.652	4.3	3.5	89.2	89.1	0.15
L_MR6_GMT17	0.004	0.002	-0.004	-0.003	0.0	-0.8	89.1	89.1	0.00
L_MR6_GMT19	2.837	1.651	-2.833	-1.647	4.3	3.5	89.1	88.9	0.15
L_MR6_GMT2	0.046	0.029	-0.046	-0.029	0.0	-0.8	89.8	89.8	0.01
L_MR6_GMT22	2.829	1.644	-2.824	-1.641	4.3	3.5	88.9	88.8	0.15
L_MR6_GMT23	0.022	0.013	-0.022	-0.014	0.0	-0.7	88.8	88.8	0.00
L_MR6_GMT24	0.080	0.045	-0.080	-0.046	0.0	-0.7	88.8	88.7	0.01
L_MR6_GMT29	0.026	0.016	-0.026	-0.016	0.0	-0.7	88.7	88.7	0.00
L_MR6_GMT30	0.005	0.002	-0.005	-0.003	0.0	-0.7	88.7	88.7	0.00
L_MR6_GMT31	0.053	0.030	-0.053	-0.031	0.0	-0.7	88.7	88.7	0.01
L_MR6_GMT34	-0.053	-0.032	0.053	0.031	0.0	-0.7	88.7	88.7	0.01
L_MR6_GMT35	0.027	0.017	-0.027	-0.017	0.0	-0.7	88.7	88.7	0.00
L_MR6_GMT37	0.026	0.015	-0.026	-0.016	0.0	-0.7	88.7	88.7	0.00
L_MR6_GMT38	0.011	0.006	-0.011	-0.007	0.0	-0.7	88.7	88.7	0.00
L_MR6_GMT39	2.722	1.583	-2.718	-1.579	4.0	3.2	88.8	88.6	0.15
L_MR6_GMT40	2.715	1.577	-2.711	-1.574	4.0	3.2	88.6	88.5	0.15
L_MR6_GMT43	2.702	1.569	-2.698	-1.565	4.0	3.2	88.5	88.3	0.15
L_MR6_GMT44	-2.677	-1.551	2.681	1.555	3.9	3.2	88.2	88.3	0.15
L_MR6_GMT45	2.663	1.542	-2.659	-1.539	3.9	3.1	88.2	88.0	0.15
L_MR6_GMT46	-2.629	-1.519	2.633	1.523	3.8	3.1	87.9	88.0	0.14
L_MR6_GMT48	2.601	1.502	-2.597	-1.499	3.7	3.0	87.9	87.7	0.14
L_MR6_GMT49	2.549	1.468	-2.543	-1.464	5.9	3.9	87.7	87.5	0.22
L_MR6_GMT5	2.900	1.693	-2.896	-1.689	4.5	3.6	89.8	89.7	0.16
L_MR6_GMT50	0.002	0.001	-0.002	-0.002	0.0	-0.7	87.5	87.5	0.00
L_MR6_GMT52	2.541	1.463	-2.535	-1.459	5.9	3.9	87.5	87.3	0.22
L_MR6_GMT54	2.492	1.432	-2.486	-1.429	5.7	3.7	87.3	87.1	0.21
L_MR6_GMT57	2.469	1.417	-2.463	-1.414	5.6	3.7	87.1	86.9	0.21
L_MR6_GMT58	0.025	0.014	-0.025	-0.014	0.0	-0.7	86.9	86.9	0.00
L_MR6_GMT59	0.007	0.004	-0.007	-0.005	0.0	-0.7	86.9	86.9	0.00
L_MR6_GMT6	0.002	0.000	-0.002	-0.001	0.0	-0.8	89.7	89.7	0.00
L_MR6_GMT61	0.018	0.011	-0.018	-0.011	0.0	-0.7	86.9	86.9	0.00
L_MR6_GMT65	2.438	1.400	-2.432	-1.396	5.5	3.6	86.9	86.7	0.21
L_MR6_GMT66	2.404	1.378	-2.399	-1.375	5.4	3.5	86.7	86.5	0.21
L_MR6_GMT67	0.002	0.001	-0.002	-0.002	0.0	-0.7	86.5	86.5	0.00
L_MR6_GMT69	2.397	1.374	-2.391	-1.371	5.4	3.5	86.5	86.3	0.21
L_MR6_GMT70	2.366	1.355	-2.362	-1.352	3.9	2.6	86.3	86.1	0.15

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
L_MR6_GMT74	-0.016	-0.009	0.016	0.008	0.0	-0.7	86.1	86.1	0.00
L_MR6_GMT75	-0.001	-0.001	0.001	0.000	0.0	-0.7	86.1	86.1	0.00
L_MR6_GMT76	0.016	0.009	-0.016	-0.010	0.0	-0.7	86.1	86.1	0.00
L_MR6_GMT77	2.346	1.344	-2.307	-1.318	38.8	25.3	86.1	84.6	1.52
L_MR6_GMT9	2.894	1.689	-2.890	-1.685	4.5	3.6	89.7	89.5	0.16
LM.1	-0.790	-0.455	0.790	0.439	0.2	-15.8	91.8	91.9	0.02
LM.2	0.000	-0.019	0.000	0.000	0.0	-19.2	100.9	100.9	0.00
LM.3	-3.954	-2.539	3.959	2.526	5.0	-12.7	91.7	91.9	0.12
LM.4	-0.424	-0.250	0.424	0.234	0.1	-15.9	91.9	91.9	0.01
LM.5	5.181	3.189	-5.172	-3.200	8.4	-10.6	92.0	91.9	0.15
LMT.1	-1.564	-0.944	1.565	0.931	0.9	-12.9	84.5	84.5	0.05
LMT.2	-0.740	-0.413	0.740	0.400	0.2	-13.3	84.5	84.5	0.02
LO_1	-1.404	-0.852	1.404	0.839	0.7	-12.5	83.0	83.1	0.04
MR.1	-1.844	-1.129	1.845	1.109	0.8	-19.5	103.0	103.1	0.05
MR.3	-5.181	-3.189	5.788	3.598	607.4	409.4	92.0	103.1	11.07
MR.4	-3.805	-2.399	3.809	2.382	3.6	-17.7	103.0	103.1	0.10
MR.6	-3.886	-2.511	3.890	2.494	3.9	-17.6	103.0	103.1	0.10
					1813.6	2678.8			

* This Transmission Line includes Series Capacitor.

Alert Summary Report

% Alert Settings

	Critical	Marginal
Loading		
Bus	100.0	95.0
Cable / Busway	100.0	95.0
Reactor	100.0	95.0
Line	100.0	95.0
Transformer	100.0	95.0
Panel	100.0	95.0
Protective Device	100.0	95.0
Generator	100.0	95.0
Inverter/Charger	100.0	95.0
Bus Voltage		
OverVoltage	105.0	102.0
UnderVoltage	95.0	98.0
Generator Excitation		
OverExcited (Q Max.)	100.0	95.0
UnderExcited (Q Min.)	100.0	

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_AG2_GK7	Bus	Under Voltage	20.000	kV	18.403	92.0	3-Phase
B_LM3	Bus	Under Voltage	20.000	kV	18.350	91.7	3-Phase
B_LMT1_GMT1	Bus	Under Voltage	20.000	kV	16.880	84.4	3-Phase
B_LMT1_GMT100	Bus	Under Voltage	20.000	kV	16.778	83.9	3-Phase
B_LMT1_GMT101	Bus	Under Voltage	20.000	kV	16.779	83.9	3-Phase
B_LMT1_GMT102	Bus	Under Voltage	20.000	kV	16.781	83.9	3-Phase
B_LMT1_GMT103	Bus	Under Voltage	20.000	kV	16.783	83.9	3-Phase
B_LMT1_GMT107	Bus	Under Voltage	0.400	kV	0.321	80.3	3-Phase
B_LMT1_GMT108	Bus	Under Voltage	20.000	kV	16.747	83.7	3-Phase
B_LMT1_GMT109	Bus	Under Voltage	20.000	kV	16.749	83.7	3-Phase
B_LMT1_GMT110	Bus	Under Voltage	20.000	kV	16.718	83.6	3-Phase
B_LMT1_GMT116	Bus	Under Voltage	20.000	kV	16.700	83.5	3-Phase
B_LMT1_GMT117	Bus	Under Voltage	0.400	kV	0.324	81.1	3-Phase
B_LMT1_GMT118	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT1_GMT119	Bus	Under Voltage	20.000	kV	16.695	83.5	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT120	Bus	Under Voltage	20.000	kV	16.696	83.5	3-Phase
B_LMT1_GMT121	Bus	Under Voltage	20.000	kV	16.703	83.5	3-Phase
B_LMT1_GMT125	Bus	Under Voltage	0.400	kV	0.315	78.8	3-Phase
B_LMT1_GMT126	Bus	Under Voltage	20.000	kV	16.690	83.5	3-Phase
B_LMT1_GMT127	Bus	Under Voltage	20.000	kV	16.692	83.5	3-Phase
B_LMT1_GMT128	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
B_LMT1_GMT129	Bus	Under Voltage	20.000	kV	16.681	83.4	3-Phase
B_LMT1_GMT130	Bus	Under Voltage	20.000	kV	16.682	83.4	3-Phase
B_LMT1_GMT137	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT138	Bus	Under Voltage	20.000	kV	16.671	83.4	3-Phase
B_LMT1_GMT139	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT1_GMT140	Bus	Under Voltage	20.000	kV	16.663	83.3	3-Phase
B_LMT1_GMT141	Bus	Under Voltage	20.000	kV	16.664	83.3	3-Phase
B_LMT1_GMT142	Bus	Under Voltage	20.000	kV	16.672	83.4	3-Phase
B_LMT1_GMT146	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
B_LMT1_GMT147	Bus	Under Voltage	20.000	kV	16.654	83.3	3-Phase
B_LMT1_GMT148	Bus	Under Voltage	20.000	kV	16.656	83.3	3-Phase
B_LMT1_GMT152	Bus	Under Voltage	20.000	kV	16.647	83.2	3-Phase
B_LMT1_GMT153	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
B_LMT1_GMT154	Bus	Under Voltage	20.000	kV	16.644	83.2	3-Phase
B_LMT1_GMT155	Bus	Under Voltage	20.000	kV	16.642	83.2	3-Phase
B_LMT1_GMT156	Bus	Under Voltage	0.400	kV	0.322	80.6	3-Phase
B_LMT1_GMT157	Bus	Under Voltage	20.000	kV	16.649	83.2	3-Phase
B_LMT1_GMT16	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
B_LMT1_GMT162	Bus	Under Voltage	0.400	kV	0.329	82.1	3-Phase
B_LMT1_GMT163	Bus	Under Voltage	20.000	kV	16.642	83.2	3-Phase
B_LMT1_GMT164	Bus	Under Voltage	20.000	kV	16.641	83.2	3-Phase
B_LMT1_GMT165	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
B_LMT1_GMT169	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
B_LMT1_GMT17	Bus	Under Voltage	20.000	kV	16.866	84.3	3-Phase
B_LMT1_GMT170	Bus	Under Voltage	20.000	kV	16.646	83.2	3-Phase
B_LMT1_GMT171	Bus	Under Voltage	20.000	kV	16.646	83.2	3-Phase
B_LMT1_GMT179	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
B_LMT1_GMT18	Bus	Under Voltage	0.400	kV	0.334	83.4	3-Phase
B_LMT1_GMT180	Bus	Under Voltage	20.000	kV	16.640	83.2	3-Phase
B_LMT1_GMT181	Bus	Under Voltage	20.000	kV	16.641	83.2	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT182	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
B_LMT1_GMT183	Bus	Under Voltage	20.000	kV	16.642	83.2	3-Phase
B_LMT1_GMT187	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT1_GMT188	Bus	Under Voltage	20.000	kV	16.639	83.2	3-Phase
B_LMT1_GMT189	Bus	Under Voltage	20.000	kV	16.640	83.2	3-Phase
B_LMT1_GMT19	Bus	Under Voltage	20.000	kV	16.859	84.3	3-Phase
B_LMT1_GMT190	Bus	Under Voltage	0.400	kV	0.329	82.4	3-Phase
B_LMT1_GMT191	Bus	Under Voltage	20.000	kV	16.640	83.2	3-Phase
B_LMT1_GMT192	Bus	Under Voltage	20.000	kV	16.640	83.2	3-Phase
B_LMT1_GMT193	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT1_GMT194	Bus	Under Voltage	20.000	kV	16.639	83.2	3-Phase
B_LMT1_GMT195	Bus	Under Voltage	20.000	kV	16.639	83.2	3-Phase
B_LMT1_GMT199	Bus	Under Voltage	20.000	kV	16.715	83.6	3-Phase
B_LMT1_GMT2	Bus	Under Voltage	0.400	kV	0.323	80.7	3-Phase
B_LMT1_GMT20	Bus	Under Voltage	20.000	kV	16.860	84.3	3-Phase
B_LMT1_GMT200	Bus	Under Voltage	0.400	kV	0.325	81.3	3-Phase
B_LMT1_GMT201	Bus	Under Voltage	20.000	kV	16.713	83.6	3-Phase
B_LMT1_GMT202	Bus	Under Voltage	20.000	kV	16.712	83.6	3-Phase
B_LMT1_GMT203	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
B_LMT1_GMT207	Bus	Under Voltage	0.400	kV	0.325	81.2	3-Phase
B_LMT1_GMT208	Bus	Under Voltage	20.000	kV	16.702	83.5	3-Phase
B_LMT1_GMT209	Bus	Under Voltage	20.000	kV	16.703	83.5	3-Phase
B_LMT1_GMT21	Bus	Under Voltage	20.000	kV	16.867	84.3	3-Phase
B_LMT1_GMT213	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
B_LMT1_GMT215	Bus	Under Voltage	20.000	kV	16.691	83.5	3-Phase
B_LMT1_GMT218	Bus	Under Voltage	0.400	kV	0.323	80.8	3-Phase
B_LMT1_GMT219	Bus	Under Voltage	20.000	kV	16.680	83.4	3-Phase
B_LMT1_GMT223	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
B_LMT1_GMT224	Bus	Under Voltage	20.000	kV	16.669	83.3	3-Phase
B_LMT1_GMT225	Bus	Under Voltage	20.000	kV	16.670	83.4	3-Phase
B_LMT1_GMT226	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
B_LMT1_GMT227	Bus	Under Voltage	20.000	kV	16.660	83.3	3-Phase
B_LMT1_GMT228	Bus	Under Voltage	20.000	kV	16.662	83.3	3-Phase
B_LMT1_GMT235	Bus	Under Voltage	0.400	kV	0.325	81.2	3-Phase
B_LMT1_GMT236	Bus	Under Voltage	0.400	kV	0.322	80.4	3-Phase
B_LMT1_GMT237	Bus	Under Voltage	20.000	kV	16.650	83.2	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT238	Bus	Under Voltage	20.000	kV	16.655	83.3	3-Phase
B_LMT1_GMT243	Bus	Under Voltage	0.400	kV	0.310	77.5	3-Phase
B_LMT1_GMT244	Bus	Under Voltage	20.000	kV	16.643	83.2	3-Phase
B_LMT1_GMT245	Bus	Under Voltage	20.000	kV	16.645	83.2	3-Phase
B_LMT1_GMT246	Bus	Under Voltage	0.400	kV	0.305	76.4	3-Phase
B_LMT1_GMT25	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
B_LMT1_GMT250	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
B_LMT1_GMT251	Bus	Under Voltage	20.000	kV	16.642	83.2	3-Phase
B_LMT1_GMT252	Bus	Under Voltage	20.000	kV	16.642	83.2	3-Phase
B_LMT1_GMT253	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
B_LMT1_GMT254	Bus	Under Voltage	20.000	kV	16.642	83.2	3-Phase
B_LMT1_GMT255	Bus	Under Voltage	20.000	kV	16.642	83.2	3-Phase
B_LMT1_GMT27	Bus	Under Voltage	20.000	kV	16.853	84.3	3-Phase
B_LMT1_GMT28	Bus	Under Voltage	20.000	kV	16.852	84.3	3-Phase
B_LMT1_GMT3	Bus	Under Voltage	20.000	kV	16.882	84.4	3-Phase
B_LMT1_GMT32	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
B_LMT1_GMT33	Bus	Under Voltage	20.000	kV	16.851	84.3	3-Phase
B_LMT1_GMT34	Bus	Under Voltage	20.000	kV	16.851	84.3	3-Phase
B_LMT1_GMT35	Bus	Under Voltage	20.000	kV	16.848	84.2	3-Phase
B_LMT1_GMT39	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
B_LMT1_GMT41	Bus	Under Voltage	20.000	kV	16.843	84.2	3-Phase
B_LMT1_GMT42	Bus	Under Voltage	20.000	kV	16.845	84.2	3-Phase
B_LMT1_GMT45	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
B_LMT1_GMT46	Bus	Under Voltage	20.000	kV	16.841	84.2	3-Phase
B_LMT1_GMT47	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
B_LMT1_GMT48	Bus	Under Voltage	20.000	kV	16.840	84.2	3-Phase
B_LMT1_GMT55	Bus	Under Voltage	0.400	kV	0.336	84.0	3-Phase
B_LMT1_GMT56	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT57	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
B_LMT1_GMT58	Bus	Under Voltage	20.000	kV	16.835	84.2	3-Phase
B_LMT1_GMT59	Bus	Under Voltage	20.000	kV	16.837	84.2	3-Phase
B_LMT1_GMT60	Bus	Under Voltage	20.000	kV	16.841	84.2	3-Phase
B_LMT1_GMT61	Bus	Under Voltage	20.000	kV	16.844	84.2	3-Phase
B_LMT1_GMT66	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT67	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
B_LMT1_GMT68	Bus	Under Voltage	20.000	kV	16.833	84.2	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT69	Bus	Under Voltage	20.000	kV	16.833	84.2	3-Phase
B_LMT1_GMT7	Bus	Under Voltage	0.400	kV	0.325	81.4	3-Phase
B_LMT1_GMT75	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT76	Bus	Under Voltage	0.400	kV	0.332	82.9	3-Phase
B_LMT1_GMT77	Bus	Under Voltage	20.000	kV	16.849	84.2	3-Phase
B_LMT1_GMT78	Bus	Under Voltage	20.000	kV	16.850	84.2	3-Phase
B_LMT1_GMT79	Bus	Under Voltage	20.000	kV	16.851	84.3	3-Phase
B_LMT1_GMT8	Bus	Under Voltage	20.000	kV	16.873	84.4	3-Phase
B_LMT1_GMT80	Bus	Under Voltage	20.000	kV	16.854	84.3	3-Phase
B_LMT1_GMT84	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
B_LMT1_GMT85	Bus	Under Voltage	20.000	kV	16.847	84.2	3-Phase
B_LMT1_GMT86	Bus	Under Voltage	20.000	kV	16.848	84.2	3-Phase
B_LMT1_GMT9	Bus	Under Voltage	20.000	kV	16.874	84.4	3-Phase
B_LMT1_GMT90	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
B_LMT1_GMT91	Bus	Under Voltage	20.000	kV	16.818	84.1	3-Phase
B_LMT1_GMT92	Bus	Under Voltage	20.000	kV	16.818	84.1	3-Phase
B_LMT1_GMT98	Bus	Under Voltage	0.400	kV	0.324	80.9	3-Phase
B_LMT1_GMT99	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
B_LMT2_1	Bus	Under Voltage	20.000	kV	16.898	84.5	3-Phase
B_LMT2_GMT1	Bus	Under Voltage	20.000	kV	16.875	84.4	3-Phase
B_LMT2_GMT10	Bus	Under Voltage	0.400	kV	0.333	83.2	3-Phase
B_LMT2_GMT108	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT109	Bus	Under Voltage	20.000	kV	16.552	82.8	3-Phase
B_LMT2_GMT11	Bus	Under Voltage	20.000	kV	16.810	84.1	3-Phase
B_LMT2_GMT110	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT111	Bus	Under Voltage	20.000	kV	16.552	82.8	3-Phase
B_LMT2_GMT112	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
B_LMT2_GMT113	Bus	Under Voltage	20.000	kV	16.551	82.8	3-Phase
B_LMT2_GMT114	Bus	Under Voltage	20.000	kV	16.551	82.8	3-Phase
B_LMT2_GMT115	Bus	Under Voltage	20.000	kV	16.552	82.8	3-Phase
B_LMT2_GMT116	Bus	Under Voltage	20.000	kV	16.553	82.8	3-Phase
B_LMT2_GMT117	Bus	Under Voltage	20.000	kV	16.554	82.8	3-Phase
B_LMT2_GMT118	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
B_LMT2_GMT119	Bus	Under Voltage	20.000	kV	16.554	82.8	3-Phase
B_LMT2_GMT12	Bus	Under Voltage	20.000	kV	16.810	84.1	3-Phase
B_LMT2_GMT123	Bus	Under Voltage	0.400	kV	0.319	79.9	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT124	Bus	Under Voltage	20.000	kV	16.549	82.7	3-Phase
B_LMT2_GMT125	Bus	Under Voltage	20.000	kV	16.550	82.7	3-Phase
B_LMT2_GMT130	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT131	Bus	Under Voltage	20.000	kV	16.559	82.8	3-Phase
B_LMT2_GMT132	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
B_LMT2_GMT133	Bus	Under Voltage	20.000	kV	16.550	82.8	3-Phase
B_LMT2_GMT145	Bus	Under Voltage	20.000	kV	16.541	82.7	3-Phase
B_LMT2_GMT146	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
B_LMT2_GMT147	Bus	Under Voltage	20.000	kV	16.541	82.7	3-Phase
B_LMT2_GMT152	Bus	Under Voltage	0.400	kV	0.325	81.3	3-Phase
B_LMT2_GMT153	Bus	Under Voltage	20.000	kV	16.532	82.7	3-Phase
B_LMT2_GMT154	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT2_GMT155	Bus	Under Voltage	20.000	kV	16.524	82.6	3-Phase
B_LMT2_GMT158	Bus	Under Voltage	0.400	kV	0.328	82.1	3-Phase
B_LMT2_GMT159	Bus	Under Voltage	20.000	kV	16.516	82.6	3-Phase
B_LMT2_GMT16	Bus	Under Voltage	20.000	kV	16.790	83.9	3-Phase
B_LMT2_GMT160	Bus	Under Voltage	20.000	kV	16.508	82.5	3-Phase
B_LMT2_GMT161	Bus	Under Voltage	20.000	kV	16.508	82.5	3-Phase
B_LMT2_GMT165	Bus	Under Voltage	0.400	kV	0.327	81.6	3-Phase
B_LMT2_GMT166	Bus	Under Voltage	20.000	kV	16.492	82.5	3-Phase
B_LMT2_GMT167	Bus	Under Voltage	20.000	kV	16.492	82.5	3-Phase
B_LMT2_GMT168	Bus	Under Voltage	20.000	kV	16.500	82.5	3-Phase
B_LMT2_GMT17	Bus	Under Voltage	0.400	kV	0.323	80.7	3-Phase
B_LMT2_GMT175	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT2_GMT176	Bus	Under Voltage	20.000	kV	16.484	82.4	3-Phase
B_LMT2_GMT177	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
B_LMT2_GMT178	Bus	Under Voltage	20.000	kV	16.484	82.4	3-Phase
B_LMT2_GMT179	Bus	Under Voltage	20.000	kV	16.484	82.4	3-Phase
B_LMT2_GMT18	Bus	Under Voltage	20.000	kV	16.789	83.9	3-Phase
B_LMT2_GMT180	Bus	Under Voltage	20.000	kV	16.484	82.4	3-Phase
B_LMT2_GMT181	Bus	Under Voltage	20.000	kV	16.485	82.4	3-Phase
B_LMT2_GMT188	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
B_LMT2_GMT189	Bus	Under Voltage	20.000	kV	16.477	82.4	3-Phase
B_LMT2_GMT190	Bus	Under Voltage	0.400	kV	0.318	79.5	3-Phase
B_LMT2_GMT191	Bus	Under Voltage	20.000	kV	16.469	82.3	3-Phase
B_LMT2_GMT192	Bus	Under Voltage	20.000	kV	16.470	82.4	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT193	Bus	Under Voltage	20.000	kV	16.477	82.4	3-Phase
B_LMT2_GMT194	Bus	Under Voltage	0.400	kV	0.329	82.2	3-Phase
B_LMT2_GMT195	Bus	Under Voltage	20.000	kV	16.464	82.3	3-Phase
B_LMT2_GMT196	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT197	Bus	Under Voltage	20.000	kV	16.458	82.3	3-Phase
B_LMT2_GMT198	Bus	Under Voltage	20.000	kV	16.458	82.3	3-Phase
B_LMT2_GMT199	Bus	Under Voltage	20.000	kV	16.464	82.3	3-Phase
B_LMT2_GMT2	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT2_GMT203	Bus	Under Voltage	0.400	kV	0.322	80.6	3-Phase
B_LMT2_GMT204	Bus	Under Voltage	20.000	kV	16.451	82.3	3-Phase
B_LMT2_GMT205	Bus	Under Voltage	20.000	kV	16.452	82.3	3-Phase
B_LMT2_GMT206	Bus	Under Voltage	0.400	kV	0.319	79.9	3-Phase
B_LMT2_GMT207	Bus	Under Voltage	20.000	kV	16.446	82.2	3-Phase
B_LMT2_GMT208	Bus	Under Voltage	20.000	kV	16.447	82.2	3-Phase
B_LMT2_GMT215	Bus	Under Voltage	0.400	kV	0.318	79.6	3-Phase
B_LMT2_GMT216	Bus	Under Voltage	20.000	kV	16.439	82.2	3-Phase
B_LMT2_GMT217	Bus	Under Voltage	20.000	kV	16.440	82.2	3-Phase
B_LMT2_GMT218	Bus	Under Voltage	20.000	kV	16.441	82.2	3-Phase
B_LMT2_GMT219	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
B_LMT2_GMT220	Bus	Under Voltage	20.000	kV	16.440	82.2	3-Phase
B_LMT2_GMT221	Bus	Under Voltage	20.000	kV	16.443	82.2	3-Phase
B_LMT2_GMT228	Bus	Under Voltage	0.400	kV	0.319	79.8	3-Phase
B_LMT2_GMT229	Bus	Under Voltage	20.000	kV	16.441	82.2	3-Phase
B_LMT2_GMT23	Bus	Under Voltage	0.400	kV	0.324	81.0	3-Phase
B_LMT2_GMT230	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT231	Bus	Under Voltage	20.000	kV	16.442	82.2	3-Phase
B_LMT2_GMT232	Bus	Under Voltage	20.000	kV	16.442	82.2	3-Phase
B_LMT2_GMT233	Bus	Under Voltage	20.000	kV	16.442	82.2	3-Phase
B_LMT2_GMT24	Bus	Under Voltage	0.400	kV	0.326	81.4	3-Phase
B_LMT2_GMT243	Bus	Under Voltage	0.400	kV	0.327	81.9	3-Phase
B_LMT2_GMT244	Bus	Under Voltage	20.000	kV	16.440	82.2	3-Phase
B_LMT2_GMT245	Bus	Under Voltage	0.400	kV	0.324	80.9	3-Phase
B_LMT2_GMT246	Bus	Under Voltage	20.000	kV	16.438	82.2	3-Phase
B_LMT2_GMT247	Bus	Under Voltage	0.400	kV	0.327	81.9	3-Phase
B_LMT2_GMT248	Bus	Under Voltage	20.000	kV	16.437	82.2	3-Phase
B_LMT2_GMT249	Bus	Under Voltage	20.000	kV	16.437	82.2	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT25	Bus	Under Voltage	20.000	kV	16.752	83.8	3-Phase
B_LMT2_GMT250	Bus	Under Voltage	20.000	kV	16.439	82.2	3-Phase
B_LMT2_GMT251	Bus	Under Voltage	20.000	kV	16.441	82.2	3-Phase
B_LMT2_GMT258	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
B_LMT2_GMT259	Bus	Under Voltage	20.000	kV	16.436	82.2	3-Phase
B_LMT2_GMT26	Bus	Under Voltage	20.000	kV	16.771	83.9	3-Phase
B_LMT2_GMT260	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT261	Bus	Under Voltage	0.400	kV	0.317	79.3	3-Phase
B_LMT2_GMT262	Bus	Under Voltage	20.000	kV	16.435	82.2	3-Phase
B_LMT2_GMT263	Bus	Under Voltage	20.000	kV	16.435	82.2	3-Phase
B_LMT2_GMT27	Bus	Under Voltage	0.400	kV	0.320	80.0	3-Phase
B_LMT2_GMT28	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
B_LMT2_GMT29	Bus	Under Voltage	20.000	kV	16.719	83.6	3-Phase
B_LMT2_GMT3	Bus	Under Voltage	20.000	kV	16.853	84.3	3-Phase
B_LMT2_GMT30	Bus	Under Voltage	20.000	kV	16.735	83.7	3-Phase
B_LMT2_GMT33	Bus	Under Voltage	0.400	kV	0.324	80.9	3-Phase
B_LMT2_GMT34	Bus	Under Voltage	20.000	kV	16.688	83.4	3-Phase
B_LMT2_GMT35	Bus	Under Voltage	20.000	kV	16.704	83.5	3-Phase
B_LMT2_GMT39	Bus	Under Voltage	20.000	kV	16.673	83.4	3-Phase
B_LMT2_GMT40	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
B_LMT2_GMT41	Bus	Under Voltage	20.000	kV	16.673	83.4	3-Phase
B_LMT2_GMT44	Bus	Under Voltage	0.400	kV	0.320	79.9	3-Phase
B_LMT2_GMT45	Bus	Under Voltage	20.000	kV	16.659	83.3	3-Phase
B_LMT2_GMT46	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT2_GMT47	Bus	Under Voltage	20.000	kV	16.645	83.2	3-Phase
B_LMT2_GMT52	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
B_LMT2_GMT53	Bus	Under Voltage	0.400	kV	0.320	80.0	3-Phase
B_LMT2_GMT54	Bus	Under Voltage	20.000	kV	16.618	83.1	3-Phase
B_LMT2_GMT55	Bus	Under Voltage	20.000	kV	16.631	83.2	3-Phase
B_LMT2_GMT59	Bus	Under Voltage	20.000	kV	16.605	83.0	3-Phase
B_LMT2_GMT6	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT2_GMT60	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT61	Bus	Under Voltage	20.000	kV	16.605	83.0	3-Phase
B_LMT2_GMT66	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT67	Bus	Under Voltage	20.000	kV	16.593	83.0	3-Phase
B_LMT2_GMT68	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT69	Bus	Under Voltage	20.000	kV	16.581	82.9	3-Phase
B_LMT2_GMT7	Bus	Under Voltage	20.000	kV	16.831	84.2	3-Phase
B_LMT2_GMT70	Bus	Under Voltage	20.000	kV	16.569	82.8	3-Phase
B_LMT2_GMT71	Bus	Under Voltage	20.000	kV	16.566	82.8	3-Phase
B_LMT2_GMT75	Bus	Under Voltage	20.000	kV	16.563	82.8	3-Phase
B_LMT2_GMT76	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT77	Bus	Under Voltage	20.000	kV	16.563	82.8	3-Phase
B_LMT2_GMT81	Bus	Under Voltage	20.000	kV	16.560	82.8	3-Phase
B_LMT2_GMT82	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT83	Bus	Under Voltage	20.000	kV	16.560	82.8	3-Phase
B_LMT2_GMT90	Bus	Under Voltage	0.400	kV	0.320	79.9	3-Phase
B_LMT2_GMT91	Bus	Under Voltage	20.000	kV	16.554	82.8	3-Phase
B_LMT2_GMT92	Bus	Under Voltage	20.000	kV	16.555	82.8	3-Phase
B_LMT2_GMT93	Bus	Under Voltage	20.000	kV	16.557	82.8	3-Phase
B_LMT2_GMT94	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT95	Bus	Under Voltage	20.000	kV	16.557	82.8	3-Phase
B_MR04_GM_11	Bus	Under Voltage	0.400	kV	0.366	91.5	3-Phase
B_MR04_GM_13	Bus	Under Voltage	0.400	kV	0.368	91.9	3-Phase
B_MR04_GM_14	Bus	Under Voltage	0.400	kV	0.378	94.5	3-Phase
B_MR04_GM_15	Bus	Under Voltage	0.400	kV	0.362	90.6	3-Phase
B_MR04_GM_23	Bus	Under Voltage	0.400	kV	0.360	90.0	3-Phase
B_MR04_GM_35	Bus	Under Voltage	0.400	kV	0.375	93.8	3-Phase
B_MR6_GMP2	Bus	Under Voltage	20.000	kV	18.275	91.4	3-Phase
B_MR6_GMP24	Bus	Under Voltage	0.400	kV	0.380	95.0	3-Phase
B_MR6_GMP31	Bus	Under Voltage	0.400	kV	0.379	94.8	3-Phase
B_MR6_GMP35	Bus	Under Voltage	0.400	kV	0.378	94.4	3-Phase
B_MR6_GMP64	Bus	Under Voltage	0.400	kV	0.375	93.8	3-Phase
B_MR6_GMP69	Bus	Under Voltage	0.400	kV	0.373	93.2	3-Phase
B_MR6_GMP71	Bus	Under Voltage	0.400	kV	0.376	93.9	3-Phase
B_MR6_GMP72	Bus	Under Voltage	20.000	kV	18.934	94.7	3-Phase
B_MR6_GMP73	Bus	Under Voltage	20.000	kV	18.933	94.7	3-Phase
B_MR6_GMP76	Bus	Under Voltage	0.400	kV	0.367	91.7	3-Phase
B_MR6_GMP77	Bus	Under Voltage	20.000	kV	18.766	93.8	3-Phase
B_MR6_GMP78	Bus	Under Voltage	0.400	kV	0.361	90.4	3-Phase
B_MR6_GMP79	Bus	Under Voltage	20.000	kV	18.600	93.0	3-Phase
B_MR6_GMP80	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR6_GMP81	Bus	Under Voltage	20.000	kV	18.437	92.2	3-Phase
B_MR6_GMP82	Bus	Under Voltage	20.000	kV	18.000	90.0	3-Phase
B_MR6_GMT1	Bus	Under Voltage	0.400	kV	0.350	87.6	3-Phase
B_MR6_GMT102	Bus	Under Voltage	0.400	kV	0.340	85.1	3-Phase
B_MR6_GMT103	Bus	Under Voltage	20.000	kV	17.374	86.9	3-Phase
B_MR6_GMT109	Bus	Under Voltage	0.400	kV	0.345	86.2	3-Phase
B_MR6_GMT110	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
B_MR6_GMT111	Bus	Under Voltage	20.000	kV	17.334	86.7	3-Phase
B_MR6_GMT112	Bus	Under Voltage	20.000	kV	17.292	86.5	3-Phase
B_MR6_GMT113	Bus	Under Voltage	20.000	kV	17.292	86.5	3-Phase
B_MR6_GMT116	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
B_MR6_GMT117	Bus	Under Voltage	20.000	kV	17.251	86.3	3-Phase
B_MR6_GMT123	Bus	Under Voltage	0.400	kV	0.344	85.9	3-Phase
B_MR6_GMT124	Bus	Under Voltage	20.000	kV	17.220	86.1	3-Phase
B_MR6_GMT125	Bus	Under Voltage	20.000	kV	17.220	86.1	3-Phase
B_MR6_GMT126	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
B_MR6_GMT127	Bus	Under Voltage	20.000	kV	17.220	86.1	3-Phase
B_MR6_GMT128	Bus	Under Voltage	20.000	kV	17.221	86.1	3-Phase
B_MR6_GMT13	Bus	Under Voltage	20.000	kV	17.905	89.5	3-Phase
B_MR6_GMT130	Bus	Under Voltage	20.000	kV	16.893	84.5	3-Phase
B_MR6_GMT14	Bus	Under Voltage	0.400	kV	0.352	87.9	3-Phase
B_MR6_GMT18	Bus	Under Voltage	0.400	kV	0.351	87.8	3-Phase
B_MR6_GMT19	Bus	Under Voltage	20.000	kV	17.874	89.4	3-Phase
B_MR6_GMT2	Bus	Under Voltage	20.000	kV	17.968	89.8	3-Phase
B_MR6_GMT20	Bus	Under Voltage	0.400	kV	0.356	89.1	3-Phase
B_MR6_GMT21	Bus	Under Voltage	20.000	kV	17.844	89.2	3-Phase
B_MR6_GMT25	Bus	Under Voltage	20.000	kV	17.813	89.1	3-Phase
B_MR6_GMT26	Bus	Under Voltage	0.400	kV	0.355	88.9	3-Phase
B_MR6_GMT27	Bus	Under Voltage	20.000	kV	17.813	89.1	3-Phase
B_MR6_GMT3	Bus	Under Voltage	20.000	kV	17.967	89.8	3-Phase
B_MR6_GMT30	Bus	Under Voltage	20.000	kV	17.782	88.9	3-Phase
B_MR6_GMT31	Bus	Under Voltage	0.400	kV	0.352	88.1	3-Phase
B_MR6_GMT35	Bus	Under Voltage	20.000	kV	17.751	88.8	3-Phase
B_MR6_GMT36	Bus	Under Voltage	0.400	kV	0.346	86.6	3-Phase
B_MR6_GMT37	Bus	Under Voltage	20.000	kV	17.751	88.8	3-Phase
B_MR6_GMT38	Bus	Under Voltage	20.000	kV	17.749	88.7	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR6_GMT44	Bus	Under Voltage	0.400	kV	0.351	87.8	3-Phase
B_MR6_GMT45	Bus	Under Voltage	0.400	kV	0.338	84.5	3-Phase
B_MR6_GMT47	Bus	Under Voltage	20.000	kV	17.748	88.7	3-Phase
B_MR6_GMT48	Bus	Under Voltage	20.000	kV	17.748	88.7	3-Phase
B_MR6_GMT52	Bus	Under Voltage	20.000	kV	17.746	88.7	3-Phase
B_MR6_GMT53	Bus	Under Voltage	0.400	kV	0.344	86.1	3-Phase
B_MR6_GMT54	Bus	Under Voltage	20.000	kV	17.745	88.7	3-Phase
B_MR6_GMT55	Bus	Under Voltage	20.000	kV	17.747	88.7	3-Phase
B_MR6_GMT58	Bus	Under Voltage	0.400	kV	0.349	87.2	3-Phase
B_MR6_GMT59	Bus	Under Voltage	20.000	kV	17.745	88.7	3-Phase
B_MR6_GMT60	Bus	Under Voltage	0.400	kV	0.353	88.2	3-Phase
B_MR6_GMT61	Bus	Under Voltage	20.000	kV	17.745	88.7	3-Phase
B_MR6_GMT62	Bus	Under Voltage	0.400	kV	0.352	88.0	3-Phase
B_MR6_GMT63	Bus	Under Voltage	20.000	kV	17.722	88.6	3-Phase
B_MR6_GMT64	Bus	Under Voltage	0.400	kV	0.350	87.6	3-Phase
B_MR6_GMT65	Bus	Under Voltage	20.000	kV	17.692	88.5	3-Phase
B_MR6_GMT7	Bus	Under Voltage	20.000	kV	17.937	89.7	3-Phase
B_MR6_GMT70	Bus	Under Voltage	0.400	kV	0.347	86.6	3-Phase
B_MR6_GMT71	Bus	Under Voltage	0.400	kV	0.342	85.4	3-Phase
B_MR6_GMT72	Bus	Under Voltage	20.000	kV	17.633	88.2	3-Phase
B_MR6_GMT73	Bus	Under Voltage	20.000	kV	17.662	88.3	3-Phase
B_MR6_GMT74	Bus	Under Voltage	0.400	kV	0.342	85.4	3-Phase
B_MR6_GMT75	Bus	Under Voltage	0.400	kV	0.340	85.1	3-Phase
B_MR6_GMT76	Bus	Under Voltage	20.000	kV	17.575	87.9	3-Phase
B_MR6_GMT77	Bus	Under Voltage	20.000	kV	17.604	88.0	3-Phase
B_MR6_GMT8	Bus	Under Voltage	0.400	kV	0.357	89.4	3-Phase
B_MR6_GMT80	Bus	Under Voltage	0.400	kV	0.341	85.3	3-Phase
B_MR6_GMT81	Bus	Under Voltage	20.000	kV	17.547	87.7	3-Phase
B_MR6_GMT82	Bus	Under Voltage	0.400	kV	0.349	87.3	3-Phase
B_MR6_GMT83	Bus	Under Voltage	20.000	kV	17.503	87.5	3-Phase
B_MR6_GMT84	Bus	Under Voltage	20.000	kV	17.503	87.5	3-Phase
B_MR6_GMT87	Bus	Under Voltage	0.400	kV	0.341	85.2	3-Phase
B_MR6_GMT88	Bus	Under Voltage	20.000	kV	17.460	87.3	3-Phase
B_MR6_GMT9	Bus	Under Voltage	20.000	kV	17.937	89.7	3-Phase
B_MR6_GMT91	Bus	Under Voltage	0.400	kV	0.345	86.2	3-Phase
B_MR6_GMT92	Bus	Under Voltage	20.000	kV	17.418	87.1	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR6_GMT96	Bus	Under Voltage	0.400	kV	0.345	86.2	3-Phase
B_MR6_GMT97	Bus	Under Voltage	20.000	kV	17.375	86.9	3-Phase
B_MR6_GMT98	Bus	Under Voltage	20.000	kV	17.375	86.9	3-Phase
B_MR6_GMT99	Bus	Under Voltage	20.000	kV	17.374	86.9	3-Phase
Bus_LM1_1	Bus	Under Voltage	20.000	kV	18.369	91.8	3-Phase
Bus_LM1_10	Bus	Under Voltage	0.400	kV	0.365	91.3	3-Phase
Bus_LM1_100	Bus	Under Voltage	0.400	kV	0.354	88.4	3-Phase
Bus_LM1_101	Bus	Under Voltage	20.000	kV	18.221	91.1	3-Phase
Bus_LM1_102	Bus	Under Voltage	0.400	kV	0.360	90.0	3-Phase
Bus_LM1_11	Bus	Under Voltage	20.000	kV	18.287	91.4	3-Phase
Bus_LM1_111	Bus	Under Voltage	0.400	kV	0.354	88.4	3-Phase
Bus_LM1_112	Bus	Under Voltage	0.400	kV	0.362	90.5	3-Phase
Bus_LM1_113	Bus	Under Voltage	20.000	kV	18.218	91.1	3-Phase
Bus_LM1_114	Bus	Under Voltage	20.000	kV	18.218	91.1	3-Phase
Bus_LM1_115	Bus	Under Voltage	20.000	kV	18.219	91.1	3-Phase
Bus_LM1_116	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
Bus_LM1_12	Bus	Under Voltage	0.400	kV	0.350	87.4	3-Phase
Bus_LM1_123	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
Bus_LM1_124	Bus	Under Voltage	0.400	kV	0.366	91.6	3-Phase
Bus_LM1_125	Bus	Under Voltage	20.000	kV	18.350	91.7	3-Phase
Bus_LM1_126	Bus	Under Voltage	20.000	kV	18.344	91.7	3-Phase
Bus_LM1_127	Bus	Under Voltage	20.000	kV	18.340	91.7	3-Phase
Bus_LM1_128	Bus	Under Voltage	0.400	kV	0.351	87.7	3-Phase
Bus_LM1_13	Bus	Under Voltage	20.000	kV	18.274	91.4	3-Phase
Bus_LM1_135	Bus	Under Voltage	0.400	kV	0.366	91.6	3-Phase
Bus_LM1_136	Bus	Under Voltage	0.400	kV	0.356	89.0	3-Phase
Bus_LM1_137	Bus	Under Voltage	20.000	kV	18.337	91.7	3-Phase
Bus_LM1_138	Bus	Under Voltage	20.000	kV	18.335	91.7	3-Phase
Bus_LM1_139	Bus	Under Voltage	20.000	kV	18.333	91.7	3-Phase
Bus_LM1_14	Bus	Under Voltage	0.400	kV	0.360	90.0	3-Phase
Bus_LM1_140	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
Bus_LM1_147	Bus	Under Voltage	0.400	kV	0.365	91.2	3-Phase
Bus_LM1_148	Bus	Under Voltage	0.400	kV	0.365	91.2	3-Phase
Bus_LM1_149	Bus	Under Voltage	20.000	kV	18.347	91.7	3-Phase
Bus_LM1_15	Bus	Under Voltage	20.000	kV	18.263	91.3	3-Phase
Bus_LM1_150	Bus	Under Voltage	20.000	kV	18.348	91.7	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_151	Bus	Under Voltage	20.000	kV	18.356	91.8	3-Phase
Bus_LM1_152	Bus	Under Voltage	0.400	kV	0.354	88.5	3-Phase
Bus_LM1_153	Bus	Under Voltage	0.400	kV	0.356	89.1	3-Phase
Bus_LM1_154	Bus	Under Voltage	0.400	kV	0.365	91.4	3-Phase
Bus_LM1_155	Bus	Under Voltage	20.000	kV	18.342	91.7	3-Phase
Bus_LM1_156	Bus	Under Voltage	20.000	kV	18.345	91.7	3-Phase
Bus_LM1_157	Bus	Under Voltage	20.000	kV	18.346	91.7	3-Phase
Bus_LM1_158	Bus	Under Voltage	0.400	kV	0.365	91.3	3-Phase
Bus_LM1_159	Bus	Under Voltage	0.400	kV	0.356	89.0	3-Phase
Bus_LM1_16	Bus	Under Voltage	0.400	kV	0.357	89.2	3-Phase
Bus_LM1_160	Bus	Under Voltage	0.400	kV	0.356	89.0	3-Phase
Bus_LM1_161	Bus	Under Voltage	20.000	kV	18.331	91.7	3-Phase
Bus_LM1_162	Bus	Under Voltage	20.000	kV	18.333	91.7	3-Phase
Bus_LM1_163	Bus	Under Voltage	20.000	kV	18.337	91.7	3-Phase
Bus_LM1_164	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
Bus_LM1_167	Bus	Under Voltage	20.000	kV	18.329	91.6	3-Phase
Bus_LM1_168	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
Bus_LM1_169	Bus	Under Voltage	20.000	kV	18.371	91.9	3-Phase
Bus_LM1_17	Bus	Under Voltage	20.000	kV	18.252	91.3	3-Phase
Bus_LM1_18	Bus	Under Voltage	0.400	kV	0.357	89.3	3-Phase
Bus_LM1_189	Bus	Under Voltage	20.000	kV	17.164	85.8	3-Phase
Bus_LM1_19	Bus	Under Voltage	20.000	kV	18.242	91.2	3-Phase
Bus_LM1_190	Bus	Under Voltage	20.000	kV	17.158	85.8	3-Phase
Bus_LM1_191	Bus	Under Voltage	20.000	kV	17.160	85.8	3-Phase
Bus_LM1_193	Bus	Under Voltage	20.000	kV	17.161	85.8	3-Phase
Bus_LM1_195	Bus	Under Voltage	20.000	kV	17.151	85.8	3-Phase
Bus_LM1_196	Bus	Under Voltage	20.000	kV	17.143	85.7	3-Phase
Bus_LM1_197	Bus	Under Voltage	20.000	kV	17.135	85.7	3-Phase
Bus_LM1_198	Bus	Under Voltage	20.000	kV	17.134	85.7	3-Phase
Bus_LM1_2	Bus	Under Voltage	0.400	kV	0.360	90.1	3-Phase
Bus_LM1_20	Bus	Under Voltage	0.400	kV	0.343	85.7	3-Phase
Bus_LM1_200	Bus	Under Voltage	20.000	kV	17.129	85.6	3-Phase
Bus_LM1_202	Bus	Under Voltage	20.000	kV	17.124	85.6	3-Phase
Bus_LM1_203	Bus	Under Voltage	20.000	kV	17.119	85.6	3-Phase
Bus_LM1_204	Bus	Under Voltage	20.000	kV	17.118	85.6	3-Phase
Bus_LM1_209	Bus	Under Voltage	20.000	kV	17.115	85.6	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_21	Bus	Under Voltage	20.000	kV	18.233	91.2	3-Phase
Bus_LM1_210	Bus	Under Voltage	20.000	kV	17.115	85.6	3-Phase
Bus_LM1_211	Bus	Under Voltage	20.000	kV	17.116	85.6	3-Phase
Bus_LM1_212	Bus	Under Voltage	20.000	kV	17.117	85.6	3-Phase
Bus_LM1_215	Bus	Under Voltage	20.000	kV	17.185	85.9	3-Phase
Bus_LM1_217	Bus	Under Voltage	20.000	kV	17.155	85.8	3-Phase
Bus_LM1_218	Bus	Under Voltage	20.000	kV	17.126	85.6	3-Phase
Bus_LM1_219	Bus	Under Voltage	20.000	kV	17.097	85.5	3-Phase
Bus_LM1_220	Bus	Under Voltage	20.000	kV	17.069	85.3	3-Phase
Bus_LM1_221	Bus	Under Voltage	20.000	kV	17.041	85.2	3-Phase
Bus_LM1_222	Bus	Under Voltage	20.000	kV	17.013	85.1	3-Phase
Bus_LM1_224	Bus	Under Voltage	20.000	kV	16.986	84.9	3-Phase
Bus_LM1_226	Bus	Under Voltage	20.000	kV	16.960	84.8	3-Phase
Bus_LM1_227	Bus	Under Voltage	20.000	kV	16.933	84.7	3-Phase
Bus_LM1_228	Bus	Under Voltage	20.000	kV	16.907	84.5	3-Phase
Bus_LM1_229	Bus	Under Voltage	20.000	kV	16.881	84.4	3-Phase
Bus_LM1_230	Bus	Under Voltage	20.000	kV	16.880	84.4	3-Phase
Bus_LM1_231	Bus	Under Voltage	20.000	kV	16.880	84.4	3-Phase
Bus_LM1_232	Bus	Under Voltage	20.000	kV	16.857	84.3	3-Phase
Bus_LM1_233	Bus	Under Voltage	20.000	kV	16.832	84.2	3-Phase
Bus_LM1_236	Bus	Under Voltage	20.000	kV	16.784	83.9	3-Phase
Bus_LM1_237	Bus	Under Voltage	20.000	kV	16.808	84.0	3-Phase
Bus_LM1_238	Bus	Under Voltage	20.000	kV	16.737	83.7	3-Phase
Bus_LM1_239	Bus	Under Voltage	20.000	kV	16.760	83.8	3-Phase
Bus_LM1_240	Bus	Under Voltage	20.000	kV	16.691	83.5	3-Phase
Bus_LM1_241	Bus	Under Voltage	20.000	kV	16.714	83.6	3-Phase
Bus_LM1_242	Bus	Under Voltage	20.000	kV	16.667	83.3	3-Phase
Bus_LM1_243	Bus	Under Voltage	20.000	kV	16.668	83.3	3-Phase
Bus_LM1_244	Bus	Under Voltage	20.000	kV	16.647	83.2	3-Phase
Bus_LM1_245	Bus	Under Voltage	20.000	kV	16.666	83.3	3-Phase
Bus_LM1_249	Bus	Under Voltage	20.000	kV	16.626	83.1	3-Phase
Bus_LM1_25	Bus	Under Voltage	20.000	kV	18.225	91.1	3-Phase
Bus_LM1_251	Bus	Under Voltage	20.000	kV	16.608	83.0	3-Phase
Bus_LM1_253	Bus	Under Voltage	20.000	kV	16.586	82.9	3-Phase
Bus_LM1_254	Bus	Under Voltage	20.000	kV	16.565	82.8	3-Phase
Bus_LM1_255	Bus	Under Voltage	20.000	kV	16.543	82.7	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_258	Bus	Under Voltage	20.000	kV	16.502	82.5	3-Phase
Bus_LM1_259	Bus	Under Voltage	20.000	kV	16.523	82.6	3-Phase
Bus_LM1_26	Bus	Under Voltage	0.400	kV	0.359	89.6	3-Phase
Bus_LM1_264	Bus	Under Voltage	20.000	kV	16.423	82.1	3-Phase
Bus_LM1_265	Bus	Under Voltage	20.000	kV	16.442	82.2	3-Phase
Bus_LM1_266	Bus	Under Voltage	20.000	kV	16.462	82.3	3-Phase
Bus_LM1_267	Bus	Under Voltage	20.000	kV	16.482	82.4	3-Phase
Bus_LM1_270	Bus	Under Voltage	20.000	kV	16.422	82.1	3-Phase
Bus_LM1_271	Bus	Under Voltage	20.000	kV	16.421	82.1	3-Phase
Bus_LM1_274	Bus	Under Voltage	20.000	kV	16.381	81.9	3-Phase
Bus_LM1_275	Bus	Under Voltage	20.000	kV	16.405	82.0	3-Phase
Bus_LM1_277	Bus	Under Voltage	20.000	kV	16.377	81.9	3-Phase
Bus_LM1_278	Bus	Under Voltage	20.000	kV	16.387	81.9	3-Phase
Bus_LM1_281	Bus	Under Voltage	20.000	kV	16.370	81.8	3-Phase
Bus_LM1_282	Bus	Under Voltage	20.000	kV	16.373	81.9	3-Phase
Bus_LM1_283	Bus	Under Voltage	20.000	kV	16.366	81.8	3-Phase
Bus_LM1_284	Bus	Under Voltage	20.000	kV	16.367	81.8	3-Phase
Bus_LM1_285	Bus	Under Voltage	20.000	kV	16.385	81.9	3-Phase
Bus_LM1_286	Bus	Under Voltage	20.000	kV	16.365	81.8	3-Phase
Bus_LM1_288	Bus	Under Voltage	20.000	kV	16.385	81.9	3-Phase
Bus_LM1_292	Bus	Under Voltage	20.000	kV	16.382	81.9	3-Phase
Bus_LM1_293	Bus	Under Voltage	20.000	kV	16.383	81.9	3-Phase
Bus_LM1_294	Bus	Under Voltage	20.000	kV	16.385	81.9	3-Phase
Bus_LM1_298	Bus	Under Voltage	20.000	kV	16.346	81.7	3-Phase
Bus_LM1_299	Bus	Under Voltage	20.000	kV	16.359	81.8	3-Phase
Bus_LM1_3	Bus	Under Voltage	20.000	kV	18.341	91.7	3-Phase
Bus_LM1_300	Bus	Under Voltage	20.000	kV	16.373	81.9	3-Phase
Bus_LM1_304	Bus	Under Voltage	20.000	kV	16.328	81.6	3-Phase
Bus_LM1_305	Bus	Under Voltage	20.000	kV	16.329	81.6	3-Phase
Bus_LM1_306	Bus	Under Voltage	20.000	kV	16.330	81.7	3-Phase
Bus_LM1_307	Bus	Under Voltage	20.000	kV	16.333	81.7	3-Phase
Bus_LM1_309	Bus	Under Voltage	20.000	kV	16.320	81.6	3-Phase
Bus_LM1_31	Bus	Under Voltage	20.000	kV	18.210	91.1	3-Phase
Bus_LM1_312	Bus	Under Voltage	20.000	kV	16.318	81.6	3-Phase
Bus_LM1_313	Bus	Under Voltage	20.000	kV	16.319	81.6	3-Phase
Bus_LM1_318	Bus	Under Voltage	20.000	kV	16.301	81.5	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_319	Bus	Under Voltage	20.000	kV	16.302	81.5	3-Phase
Bus_LM1_32	Bus	Under Voltage	0.400	kV	0.357	89.2	3-Phase
Bus_LM1_320	Bus	Under Voltage	20.000	kV	16.303	81.5	3-Phase
Bus_LM1_321	Bus	Under Voltage	20.000	kV	16.306	81.5	3-Phase
Bus_LM1_322	Bus	Under Voltage	20.000	kV	16.309	81.5	3-Phase
Bus_LM1_327	Bus	Under Voltage	20.000	kV	16.271	81.4	3-Phase
Bus_LM1_328	Bus	Under Voltage	20.000	kV	16.280	81.4	3-Phase
Bus_LM1_329	Bus	Under Voltage	20.000	kV	16.290	81.4	3-Phase
Bus_LM1_33	Bus	Under Voltage	20.000	kV	18.190	91.0	3-Phase
Bus_LM1_330	Bus	Under Voltage	20.000	kV	16.299	81.5	3-Phase
Bus_LM1_335	Bus	Under Voltage	20.000	kV	16.254	81.3	3-Phase
Bus_LM1_336	Bus	Under Voltage	20.000	kV	16.257	81.3	3-Phase
Bus_LM1_337	Bus	Under Voltage	20.000	kV	16.261	81.3	3-Phase
Bus_LM1_338	Bus	Under Voltage	20.000	kV	16.266	81.3	3-Phase
Bus_LM1_34	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
Bus_LM1_343	Bus	Under Voltage	20.000	kV	16.251	81.3	3-Phase
Bus_LM1_344	Bus	Under Voltage	20.000	kV	16.250	81.2	3-Phase
Bus_LM1_345	Bus	Under Voltage	20.000	kV	16.240	81.2	3-Phase
Bus_LM1_346	Bus	Under Voltage	20.000	kV	16.249	81.2	3-Phase
Bus_LM1_35	Bus	Under Voltage	20.000	kV	18.192	91.0	3-Phase
Bus_LM1_353	Bus	Under Voltage	20.000	kV	16.262	81.3	3-Phase
Bus_LM1_354	Bus	Under Voltage	20.000	kV	16.259	81.3	3-Phase
Bus_LM1_355	Bus	Under Voltage	20.000	kV	16.260	81.3	3-Phase
Bus_LM1_356	Bus	Under Voltage	20.000	kV	16.262	81.3	3-Phase
Bus_LM1_357	Bus	Under Voltage	20.000	kV	16.264	81.3	3-Phase
Bus_LM1_358	Bus	Under Voltage	20.000	kV	16.267	81.3	3-Phase
Bus_LM1_359	Bus	Under Voltage	20.000	kV	16.267	81.3	3-Phase
Bus_LM1_36	Bus	Under Voltage	0.400	kV	0.360	90.0	3-Phase
Bus_LM1_361	Bus	Under Voltage	20.000	kV	16.257	81.3	3-Phase
Bus_LM1_362	Bus	Under Voltage	20.000	kV	16.253	81.3	3-Phase
Bus_LM1_366	Bus	Under Voltage	20.000	kV	16.247	81.2	3-Phase
Bus_LM1_367	Bus	Under Voltage	20.000	kV	16.248	81.2	3-Phase
Bus_LM1_368	Bus	Under Voltage	20.000	kV	16.249	81.2	3-Phase
Bus_LM1_369	Bus	Under Voltage	20.000	kV	16.249	81.2	3-Phase
Bus_LM1_37	Bus	Under Voltage	20.000	kV	18.204	91.0	3-Phase
Bus_LM1_375	Bus	Under Voltage	20.000	kV	16.242	81.2	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_376	Bus	Under Voltage	20.000	kV	16.244	81.2	3-Phase
Bus_LM1_377	Bus	Under Voltage	20.000	kV	16.246	81.2	3-Phase
Bus_LM1_38	Bus	Under Voltage	0.400	kV	0.355	88.8	3-Phase
Bus_LM1_380	Bus	Under Voltage	20.000	kV	16.238	81.2	3-Phase
Bus_LM1_383	Bus	Under Voltage	20.000	kV	16.237	81.2	3-Phase
Bus_LM1_384	Bus	Under Voltage	20.000	kV	16.237	81.2	3-Phase
Bus_LM1_385	Bus	Under Voltage	20.000	kV	16.236	81.2	3-Phase
Bus_LM1_386	Bus	Under Voltage	20.000	kV	16.236	81.2	3-Phase
Bus_LM1_39	Bus	Under Voltage	20.000	kV	18.198	91.0	3-Phase
Bus_LM1_40	Bus	Under Voltage	0.400	kV	0.359	89.7	3-Phase
Bus_LM1_41	Bus	Under Voltage	20.000	kV	18.218	91.1	3-Phase
Bus_LM1_42	Bus	Under Voltage	20.000	kV	18.189	90.9	3-Phase
Bus_LM1_43	Bus	Under Voltage	0.400	kV	0.354	88.6	3-Phase
Bus_LM1_44	Bus	Under Voltage	20.000	kV	18.188	90.9	3-Phase
Bus_LM1_45	Bus	Under Voltage	0.400	kV	0.361	90.4	3-Phase
Bus_LM1_46	Bus	Under Voltage	20.000	kV	18.188	90.9	3-Phase
Bus_LM1_47	Bus	Under Voltage	0.400	kV	0.363	90.6	3-Phase
Bus_LM1_58	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
Bus_LM1_59	Bus	Under Voltage	20.000	kV	18.189	90.9	3-Phase
Bus_LM1_6	Bus	Under Voltage	0.400	kV	0.350	87.6	3-Phase
Bus_LM1_60	Bus	Under Voltage	0.400	kV	0.349	87.2	3-Phase
Bus_LM1_61	Bus	Under Voltage	0.400	kV	0.355	88.9	3-Phase
Bus_LM1_62	Bus	Under Voltage	0.400	kV	0.354	88.5	3-Phase
Bus_LM1_63	Bus	Under Voltage	20.000	kV	18.180	90.9	3-Phase
Bus_LM1_64	Bus	Under Voltage	20.000	kV	18.181	90.9	3-Phase
Bus_LM1_65	Bus	Under Voltage	20.000	kV	18.183	90.9	3-Phase
Bus_LM1_66	Bus	Under Voltage	20.000	kV	18.185	90.9	3-Phase
Bus_LM1_67	Bus	Under Voltage	0.400	kV	0.359	89.8	3-Phase
Bus_LM1_7	Bus	Under Voltage	20.000	kV	18.315	91.6	3-Phase
Bus_LM1_70	Bus	Under Voltage	20.000	kV	18.303	91.5	3-Phase
Bus_LM1_71	Bus	Under Voltage	0.400	kV	0.361	90.2	3-Phase
Bus_LM1_74	Bus	Under Voltage	20.000	kV	18.293	91.5	3-Phase
Bus_LM1_75	Bus	Under Voltage	0.400	kV	0.359	89.8	3-Phase
Bus_LM1_76	Bus	Under Voltage	20.000	kV	18.284	91.4	3-Phase
Bus_LM1_77	Bus	Under Voltage	0.400	kV	0.363	90.8	3-Phase
Bus_LM1_78	Bus	Under Voltage	20.000	kV	18.274	91.4	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_79	Bus	Under Voltage	0.400	kV	0.361	90.4	3-Phase
Bus_LM1_8	Bus	Under Voltage	0.400	kV	0.358	89.6	3-Phase
Bus_LM1_80	Bus	Under Voltage	20.000	kV	18.266	91.3	3-Phase
Bus_LM1_81	Bus	Under Voltage	0.400	kV	0.357	89.1	3-Phase
Bus_LM1_82	Bus	Under Voltage	20.000	kV	18.258	91.3	3-Phase
Bus_LM1_83	Bus	Under Voltage	0.400	kV	0.364	91.1	3-Phase
Bus_LM1_84	Bus	Under Voltage	20.000	kV	18.251	91.3	3-Phase
Bus_LM1_85	Bus	Under Voltage	0.400	kV	0.364	91.1	3-Phase
Bus_LM1_86	Bus	Under Voltage	20.000	kV	18.245	91.2	3-Phase
Bus_LM1_87	Bus	Under Voltage	0.400	kV	0.354	88.5	3-Phase
Bus_LM1_9	Bus	Under Voltage	20.000	kV	18.300	91.5	3-Phase
Bus_LM1_91	Bus	Under Voltage	20.000	kV	18.239	91.2	3-Phase
Bus_LM1_92	Bus	Under Voltage	0.400	kV	0.354	88.5	3-Phase
Bus_LM1_93	Bus	Under Voltage	20.000	kV	18.234	91.2	3-Phase
Bus_LM1_94	Bus	Under Voltage	0.400	kV	0.362	90.5	3-Phase
Bus_LM1_95	Bus	Under Voltage	20.000	kV	18.225	91.1	3-Phase
Bus_LM1_96	Bus	Under Voltage	0.400	kV	0.354	88.4	3-Phase
Bus_LM1_97	Bus	Under Voltage	20.000	kV	18.229	91.1	3-Phase
Bus_LM1_98	Bus	Under Voltage	0.400	kV	0.357	89.2	3-Phase
Bus_LM1_99	Bus	Under Voltage	20.000	kV	18.222	91.1	3-Phase
Bus_LM3_10	Bus	Under Voltage	0.400	kV	0.351	87.7	3-Phase
Bus_LM3_108	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
Bus_LM3_109	Bus	Under Voltage	0.400	kV	0.338	84.4	3-Phase
Bus_LM3_11	Bus	Under Voltage	20.000	kV	18.023	90.1	3-Phase
Bus_LM3_110	Bus	Under Voltage	0.400	kV	0.337	84.2	3-Phase
Bus_LM3_111	Bus	Under Voltage	0.400	kV	0.333	83.2	3-Phase
Bus_LM3_112	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
Bus_LM3_113	Bus	Under Voltage	20.000	kV	17.245	86.2	3-Phase
Bus_LM3_114	Bus	Under Voltage	20.000	kV	17.276	86.4	3-Phase
Bus_LM3_115	Bus	Under Voltage	20.000	kV	17.307	86.5	3-Phase
Bus_LM3_116	Bus	Under Voltage	20.000	kV	17.340	86.7	3-Phase
Bus_LM3_117	Bus	Under Voltage	20.000	kV	17.375	86.9	3-Phase
Bus_LM3_12	Bus	Under Voltage	0.400	kV	0.350	87.4	3-Phase
Bus_LM3_128	Bus	Under Voltage	0.400	kV	0.334	83.4	3-Phase
Bus_LM3_129	Bus	Under Voltage	0.400	kV	0.337	84.2	3-Phase
Bus_LM3_13	Bus	Under Voltage	20.000	kV	17.970	89.9	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_130	Bus	Under Voltage	0.400	kV	0.333	83.3	3-Phase
Bus_LM3_131	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_132	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_133	Bus	Under Voltage	20.000	kV	17.291	86.5	3-Phase
Bus_LM3_134	Bus	Under Voltage	20.000	kV	17.292	86.5	3-Phase
Bus_LM3_135	Bus	Under Voltage	20.000	kV	17.294	86.5	3-Phase
Bus_LM3_136	Bus	Under Voltage	20.000	kV	17.297	86.5	3-Phase
Bus_LM3_137	Bus	Under Voltage	20.000	kV	17.302	86.5	3-Phase
Bus_LM3_14	Bus	Under Voltage	0.400	kV	0.353	88.3	3-Phase
Bus_LM3_140	Bus	Under Voltage	20.000	kV	17.221	86.1	3-Phase
Bus_LM3_141	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
Bus_LM3_144	Bus	Under Voltage	20.000	kV	17.204	86.0	3-Phase
Bus_LM3_145	Bus	Under Voltage	0.400	kV	0.336	84.0	3-Phase
Bus_LM3_146	Bus	Under Voltage	20.000	kV	17.187	85.9	3-Phase
Bus_LM3_147	Bus	Under Voltage	0.400	kV	0.340	84.9	3-Phase
Bus_LM3_152	Bus	Under Voltage	20.000	kV	17.171	85.9	3-Phase
Bus_LM3_153	Bus	Under Voltage	0.400	kV	0.327	81.6	3-Phase
Bus_LM3_156	Bus	Under Voltage	20.000	kV	17.164	85.8	3-Phase
Bus_LM3_157	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
Bus_LM3_159	Bus	Under Voltage	0.400	kV	0.314	78.6	3-Phase
Bus_LM3_160	Bus	Under Voltage	20.000	kV	17.157	85.8	3-Phase
Bus_LM3_161	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_162	Bus	Under Voltage	20.000	kV	17.154	85.8	3-Phase
Bus_LM3_163	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_164	Bus	Under Voltage	20.000	kV	17.153	85.8	3-Phase
Bus_LM3_165	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_166	Bus	Under Voltage	20.000	kV	17.152	85.8	3-Phase
Bus_LM3_167	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_170	Bus	Under Voltage	20.000	kV	17.157	85.8	3-Phase
Bus_LM3_171	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_173	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
Bus_LM3_175	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
Bus_LM3_176	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_177	Bus	Under Voltage	0.400	kV	0.339	84.7	3-Phase
Bus_LM3_178	Bus	Under Voltage	0.400	kV	0.339	84.7	3-Phase
Bus_LM3_180	Bus	Under Voltage	0.400	kV	0.334	83.6	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_182	Bus	Under Voltage	0.400	kV	0.338	84.6	3-Phase
Bus_LM3_183	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
Bus_LM3_184	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
Bus_LM3_188	Bus	Under Voltage	20.000	kV	18.294	91.5	3-Phase
Bus_LM3_188_	Bus	Under Voltage	20.000	kV	17.918	89.6	3-Phase
Bus_LM3_189	Bus	Under Voltage	0.400	kV	0.355	88.8	3-Phase
Bus_LM3_191	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
Bus_LM3_192	Bus	Under Voltage	0.400	kV	0.338	84.6	3-Phase
Bus_LM3_193	Bus	Under Voltage	0.400	kV	0.338	84.6	3-Phase
Bus_LM3_194	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
Bus_LM3_196	Bus	Under Voltage	0.400	kV	0.331	82.8	3-Phase
Bus_LM3_198	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
Bus_LM3_199	Bus	Under Voltage	0.400	kV	0.331	82.8	3-Phase
Bus_LM3_200	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
Bus_LM3_201	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
Bus_LM3_202	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_203	Bus	Under Voltage	0.400	kV	0.329	82.2	3-Phase
Bus_LM3_205	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
Bus_LM3_207	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
Bus_LM3_208	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
Bus_LM3_209	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
Bus_LM3_210	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_211	Bus	Under Voltage	0.400	kV	0.334	83.4	3-Phase
Bus_LM3_212	Bus	Under Voltage	0.400	kV	0.333	83.4	3-Phase
Bus_LM3_213	Bus	Under Voltage	0.400	kV	0.320	80.0	3-Phase
Bus_LM3_214	Bus	Under Voltage	0.400	kV	0.328	82.1	3-Phase
Bus_LM3_217	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
Bus_LM3_218	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
Bus_LM3_219	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
Bus_LM3_220	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
Bus_LM3_221	Bus	Under Voltage	0.400	kV	0.325	81.4	3-Phase
Bus_LM3_222	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
Bus_LM3_223	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_224	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_225	Bus	Under Voltage	0.400	kV	0.329	82.2	3-Phase
Bus_LM3_226	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_230	Bus	Under Voltage	0.400	kV	0.328	82.1	3-Phase
Bus_LM3_232	Bus	Under Voltage	0.400	kV	0.324	80.9	3-Phase
Bus_LM3_234	Bus	Under Voltage	0.400	kV	0.323	80.8	3-Phase
Bus_LM3_235	Bus	Under Voltage	0.400	kV	0.323	80.7	3-Phase
Bus_LM3_236	Bus	Under Voltage	0.400	kV	0.322	80.6	3-Phase
Bus_LM3_239	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
Bus_LM3_240	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
Bus_LM3_245	Bus	Under Voltage	0.400	kV	0.312	78.0	3-Phase
Bus_LM3_246	Bus	Under Voltage	0.400	kV	0.320	80.1	3-Phase
Bus_LM3_247	Bus	Under Voltage	0.400	kV	0.311	77.8	3-Phase
Bus_LM3_248	Bus	Under Voltage	0.400	kV	0.325	81.4	3-Phase
Bus_LM3_251	Bus	Under Voltage	0.400	kV	0.320	80.0	3-Phase
Bus_LM3_252	Bus	Under Voltage	0.400	kV	0.324	81.1	3-Phase
Bus_LM3_255	Bus	Under Voltage	0.400	kV	0.323	80.9	3-Phase
Bus_LM3_256	Bus	Under Voltage	0.400	kV	0.324	81.0	3-Phase
Bus_LM3_258	Bus	Under Voltage	0.400	kV	0.319	79.8	3-Phase
Bus_LM3_261	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
Bus_LM3_262	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
Bus_LM3_263	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
Bus_LM3_264	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
Bus_LM3_265	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
Bus_LM3_266	Bus	Under Voltage	0.400	kV	0.319	79.8	3-Phase
Bus_LM3_268	Bus	Under Voltage	0.400	kV	0.319	79.8	3-Phase
Bus_LM3_27	Bus	Under Voltage	0.400	kV	0.345	86.3	3-Phase
Bus_LM3_272	Bus	Under Voltage	0.400	kV	0.310	77.6	3-Phase
Bus_LM3_273	Bus	Under Voltage	0.400	kV	0.323	80.9	3-Phase
Bus_LM3_274	Bus	Under Voltage	0.400	kV	0.310	77.6	3-Phase
Bus_LM3_278	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
Bus_LM3_279	Bus	Under Voltage	0.400	kV	0.310	77.4	3-Phase
Bus_LM3_28	Bus	Under Voltage	0.400	kV	0.344	86.1	3-Phase
Bus_LM3_280	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
Bus_LM3_284	Bus	Under Voltage	0.400	kV	0.318	79.5	3-Phase
Bus_LM3_285	Bus	Under Voltage	0.400	kV	0.318	79.5	3-Phase
Bus_LM3_286	Bus	Under Voltage	0.400	kV	0.322	80.6	3-Phase
Bus_LM3_288	Bus	Under Voltage	0.400	kV	0.318	79.5	3-Phase
Bus_LM3_29	Bus	Under Voltage	0.400	kV	0.343	85.8	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_291	Bus	Under Voltage	0.400	kV	0.318	79.5	3-Phase
Bus_LM3_292	Bus	Under Voltage	0.400	kV	0.318	79.5	3-Phase
Bus_LM3_297	Bus	Under Voltage	0.400	kV	0.296	74.0	3-Phase
Bus_LM3_298	Bus	Under Voltage	0.400	kV	0.296	74.0	3-Phase
Bus_LM3_299	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
Bus_LM3_3	Bus	Under Voltage	20.000	kV	18.239	91.2	3-Phase
Bus_LM3_30	Bus	Under Voltage	0.400	kV	0.342	85.5	3-Phase
Bus_LM3_300	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
Bus_LM3_305	Bus	Under Voltage	0.400	kV	0.317	79.4	3-Phase
Bus_LM3_306	Bus	Under Voltage	0.400	kV	0.317	79.3	3-Phase
Bus_LM3_307	Bus	Under Voltage	0.400	kV	0.308	77.0	3-Phase
Bus_LM3_308	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_31	Bus	Under Voltage	0.400	kV	0.347	86.7	3-Phase
Bus_LM3_313	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_314	Bus	Under Voltage	0.400	kV	0.295	73.8	3-Phase
Bus_LM3_315	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_316	Bus	Under Voltage	0.400	kV	0.317	79.1	3-Phase
Bus_LM3_32	Bus	Under Voltage	20.000	kV	17.657	88.3	3-Phase
Bus_LM3_321	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
Bus_LM3_322	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_323	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_324	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
Bus_LM3_33	Bus	Under Voltage	20.000	kV	17.658	88.3	3-Phase
Bus_LM3_331	Bus	Under Voltage	0.400	kV	0.308	77.0	3-Phase
Bus_LM3_332	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_333	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_334	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_335	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_336	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_338	Bus	Under Voltage	0.400	kV	0.317	79.2	3-Phase
Bus_LM3_339	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
Bus_LM3_34	Bus	Under Voltage	20.000	kV	17.709	88.5	3-Phase
Bus_LM3_343	Bus	Under Voltage	0.400	kV	0.311	77.8	3-Phase
Bus_LM3_344	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_345	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
Bus_LM3_35	Bus	Under Voltage	20.000	kV	17.761	88.8	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_350	Bus	Under Voltage	0.400	kV	0.307	76.9	3-Phase
Bus_LM3_351	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_352	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_354	Bus	Under Voltage	0.400	kV	0.321	80.1	3-Phase
Bus_LM3_357	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_358	Bus	Under Voltage	0.400	kV	0.316	79.1	3-Phase
Bus_LM3_359	Bus	Under Voltage	0.400	kV	0.316	79.0	3-Phase
Bus_LM3_36	Bus	Under Voltage	20.000	kV	17.812	89.1	3-Phase
Bus_LM3_360	Bus	Under Voltage	0.400	kV	0.316	79.0	3-Phase
Bus_LM3_362	Bus	Under Voltage	0.400	kV	0.338	84.4	3-Phase
Bus_LM3_37	Bus	Under Voltage	20.000	kV	17.865	89.3	3-Phase
Bus_LM3_38	Bus	Under Voltage	0.400	kV	0.346	86.6	3-Phase
Bus_LM3_4	Bus	Under Voltage	0.400	kV	0.354	88.5	3-Phase
Bus_LM3_40	Bus	Under Voltage	0.400	kV	0.342	85.5	3-Phase
Bus_LM3_41	Bus	Under Voltage	20.000	kV	17.656	88.3	3-Phase
Bus_LM3_5	Bus	Under Voltage	20.000	kV	18.185	90.9	3-Phase
Bus_LM3_56	Bus	Under Voltage	0.400	kV	0.338	84.5	3-Phase
Bus_LM3_57	Bus	Under Voltage	0.400	kV	0.337	84.1	3-Phase
Bus_LM3_58	Bus	Under Voltage	0.400	kV	0.339	84.8	3-Phase
Bus_LM3_59	Bus	Under Voltage	0.400	kV	0.341	85.3	3-Phase
Bus_LM3_6	Bus	Under Voltage	0.400	kV	0.353	88.2	3-Phase
Bus_LM3_60	Bus	Under Voltage	0.400	kV	0.338	84.4	3-Phase
Bus_LM3_61	Bus	Under Voltage	0.400	kV	0.340	85.0	3-Phase
Bus_LM3_62	Bus	Under Voltage	0.400	kV	0.340	85.0	3-Phase
Bus_LM3_63	Bus	Under Voltage	20.000	kV	17.608	88.0	3-Phase
Bus_LM3_64	Bus	Under Voltage	20.000	kV	17.558	87.8	3-Phase
Bus_LM3_65	Bus	Under Voltage	20.000	kV	17.508	87.5	3-Phase
Bus_LM3_66	Bus	Under Voltage	20.000	kV	17.459	87.3	3-Phase
Bus_LM3_67	Bus	Under Voltage	20.000	kV	17.410	87.1	3-Phase
Bus_LM3_68	Bus	Under Voltage	20.000	kV	17.382	86.9	3-Phase
Bus_LM3_69	Bus	Under Voltage	20.000	kV	17.354	86.8	3-Phase
Bus_LM3_7	Bus	Under Voltage	20.000	kV	18.131	90.7	3-Phase
Bus_LM3_74	Bus	Under Voltage	0.400	kV	0.337	84.2	3-Phase
Bus_LM3_75	Bus	Under Voltage	0.400	kV	0.335	83.9	3-Phase
Bus_LM3_76	Bus	Under Voltage	20.000	kV	17.328	86.6	3-Phase
Bus_LM3_77	Bus	Under Voltage	20.000	kV	17.304	86.5	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_78	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
Bus_LM3_79	Bus	Under Voltage	0.400	kV	0.336	84.1	3-Phase
Bus_LM3_8	Bus	Under Voltage	0.400	kV	0.352	88.0	3-Phase
Bus_LM3_80	Bus	Under Voltage	20.000	kV	17.281	86.4	3-Phase
Bus_LM3_81	Bus	Under Voltage	20.000	kV	17.260	86.3	3-Phase
Bus_LM3_82	Bus	Under Voltage	0.400	kV	0.339	84.7	3-Phase
Bus_LM3_83	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
Bus_LM3_84	Bus	Under Voltage	20.000	kV	17.240	86.2	3-Phase
Bus_LM3_85	Bus	Under Voltage	20.000	kV	17.405	87.0	3-Phase
Bus_LM3_86	Bus	Under Voltage	0.400	kV	0.337	84.2	3-Phase
Bus_LM3_87	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
Bus_LM3_88	Bus	Under Voltage	20.000	kV	17.401	87.0	3-Phase
Bus_LM3_89	Bus	Under Voltage	20.000	kV	17.397	87.0	3-Phase
Bus_LM3_9	Bus	Under Voltage	20.000	kV	18.077	90.4	3-Phase
Bus_LM3_94	Bus	Under Voltage	0.400	kV	0.339	84.7	3-Phase
Bus_LM3_95	Bus	Under Voltage	0.400	kV	0.335	83.9	3-Phase
Bus_LM3_96	Bus	Under Voltage	20.000	kV	17.395	87.0	3-Phase
Bus_LM3_97	Bus	Under Voltage	20.000	kV	17.393	87.0	3-Phase
CO_TRIKORA	Fuse	Overload	25.000	Amp	29.016	116.1	3-Phase
G_LM1_GM_58	Transformer	Overload	0.025	MVA	0.034	137.0	3-Phase
G_LM3_GMC_159	Transformer	Overload	0.015	MVA	0.025	168.0	3-Phase
G_LM3_GML_233	Transformer	Overload	0.015	MVA	0.025	167.0	3-Phase
G_LM3_GML_234	Transformer	Overload	0.015	MVA	0.025	167.0	3-Phase
G_LM3_GML_242	Transformer	Overload	0.015	MVA	0.025	167.0	3-Phase
G_LMT1_GMT033	Transformer	Overload	0.050	MVA	0.065	130.5	3-Phase
G_LMT1_GMT034	Transformer	Overload	0.050	MVA	0.078	155.9	3-Phase
G_LMT1_GMT046	Transformer	Overload	0.050	MVA	0.053	105.7	3-Phase
G_MR1_GMP_15	Transformer	Overload	0.025	MVA	0.026	102.1	3-Phase
G_MR4_GM44	Transformer	Overload	0.050	MVA	0.085	169.0	3-Phase
G_MR4_GM46	Transformer	Overload	0.050	MVA	0.053	105.3	3-Phase
G_MR6_GMT008	Transformer	Overload	0.025	MVA	0.026	103.0	3-Phase
GH LEMITO	Bus	Under Voltage	20.000	kV	16.617	83.1	3-Phase
GH MARISA	Bus	Under Voltage	20.000	kV	18.373	91.9	3-Phase
GH MARISA1	Bus	Under Voltage	20.000	kV	18.373	91.9	3-Phase
GH TILAMUTA	Bus	Under Voltage	20.000	kV	16.902	84.5	3-Phase
LM1 V UJUNG	Bus	Under Voltage	20.000	kV	18.188	90.9	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
LM3 V UJUNG	Bus	Under Voltage	20.000	kV	17.215	86.1	3-Phase
LM4 V UJUNG	Bus	Under Voltage	20.000	kV	18.329	91.6	3-Phase
LMT1 V UJUNG	Bus	Under Voltage	20.000	kV	16.639	83.2	3-Phase
LMT2 V UJUNG	Bus	Under Voltage	20.000	kV	16.435	82.2	3-Phase
LO1 V UJUNG	Bus	Under Voltage	20.000	kV	17.215	86.1	3-Phase
LO2 V UJUNG	Bus	Under Voltage	20.000	kV	16.237	81.2	3-Phase
MR6 V UJUNG	Bus	Under Voltage	20.000	kV	18.063	90.3	3-Phase
MR6 V UJUNG2	Bus	Under Voltage	20.000	kV	16.917	84.6	3-Phase
PLTD_TILAMUTA	Generator	Under Excited	0.000	Mvar	0.000	0.0	3-Phase
PLTD_TILAMUTA	Generator	Under Power	0.000	MW	0.000	0.0	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR04_GM	Bus	Over Voltage	20.000	kV	20.598	103.0	3-Phase
B_MR04_GM_17	Bus	Under Voltage	0.400	kV	0.392	97.9	3-Phase
B_MR04_GM_19	Bus	Under Voltage	0.400	kV	0.387	96.7	3-Phase
B_MR04_GM_20	Bus	Under Voltage	0.400	kV	0.381	95.3	3-Phase
B_MR04_GM_21	Bus	Under Voltage	0.400	kV	0.386	96.6	3-Phase
B_MR04_GM_24	Bus	Under Voltage	0.400	kV	0.386	96.6	3-Phase
B_MR04_GM_27	Bus	Under Voltage	0.400	kV	0.380	95.0	3-Phase
B_MR04_GM_30	Bus	Under Voltage	0.400	kV	0.382	95.5	3-Phase
B_MR04_GM_38	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
B_MR04_GM_39	Bus	Under Voltage	0.400	kV	0.387	96.8	3-Phase
B_MR04_GM_47	Bus	Under Voltage	0.400	kV	0.388	97.1	3-Phase
B_MR04_GM_8	Bus	Over Voltage	0.400	kV	0.409	102.4	3-Phase
B_MR04_GM_9	Bus	Under Voltage	0.400	kV	0.382	95.4	3-Phase
B_MR04_GM1	Bus	Over Voltage	20.000	kV	20.568	102.8	3-Phase
B_MR04_GM10	Bus	Over Voltage	20.000	kV	20.427	102.1	3-Phase
B_MR04_GM2	Bus	Over Voltage	20.000	kV	20.538	102.7	3-Phase
B_MR04_GM3	Bus	Over Voltage	20.000	kV	20.575	102.9	3-Phase
B_MR04_GM4	Bus	Over Voltage	20.000	kV	20.575	102.9	3-Phase
B_MR04_GM5	Bus	Over Voltage	20.000	kV	20.574	102.9	3-Phase
B_MR04_GM6	Bus	Over Voltage	20.000	kV	20.545	102.7	3-Phase
B_MR04_GM7	Bus	Over Voltage	20.000	kV	20.515	102.6	3-Phase
B_MR04_GM8	Bus	Over Voltage	20.000	kV	20.485	102.4	3-Phase
B_MR04_GM9	Bus	Over Voltage	20.000	kV	20.456	102.3	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR6_GMP1	Bus	Over Voltage	20.000	kV	20.597	103.0	3-Phase
B_MR6_GMP14	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
B_MR6_GMP16	Bus	Under Voltage	20.000	kV	19.448	97.2	3-Phase
B_MR6_GMP19	Bus	Under Voltage	20.000	kV	19.442	97.2	3-Phase
B_MR6_GMP20	Bus	Under Voltage	0.400	kV	0.380	95.1	3-Phase
B_MR6_GMP21	Bus	Under Voltage	20.000	kV	19.441	97.2	3-Phase
B_MR6_GMP25	Bus	Under Voltage	20.000	kV	19.437	97.2	3-Phase
B_MR6_GMP26	Bus	Under Voltage	20.000	kV	19.437	97.2	3-Phase
B_MR6_GMP30	Bus	Under Voltage	20.000	kV	19.433	97.2	3-Phase
B_MR6_GMP32	Bus	Under Voltage	20.000	kV	19.432	97.2	3-Phase
B_MR6_GMP36	Bus	Under Voltage	20.000	kV	19.430	97.1	3-Phase
B_MR6_GMP37	Bus	Under Voltage	20.000	kV	19.447	97.2	3-Phase
B_MR6_GMP4	Bus	Over Voltage	20.000	kV	20.402	102.0	3-Phase
B_MR6_GMP42	Bus	Under Voltage	0.400	kV	0.387	96.7	3-Phase
B_MR6_GMP43	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
B_MR6_GMP44	Bus	Under Voltage	20.000	kV	19.446	97.2	3-Phase
B_MR6_GMP45	Bus	Under Voltage	20.000	kV	19.446	97.2	3-Phase
B_MR6_GMP46	Bus	Under Voltage	20.000	kV	19.446	97.2	3-Phase
B_MR6_GMP51	Bus	Under Voltage	0.400	kV	0.382	95.5	3-Phase
B_MR6_GMP52	Bus	Under Voltage	0.400	kV	0.388	96.9	3-Phase
B_MR6_GMP53	Bus	Under Voltage	20.000	kV	19.445	97.2	3-Phase
B_MR6_GMP54	Bus	Under Voltage	20.000	kV	19.445	97.2	3-Phase
B_MR6_GMP55	Bus	Under Voltage	20.000	kV	19.446	97.2	3-Phase
B_MR6_GMP58	Bus	Under Voltage	0.400	kV	0.387	96.7	3-Phase
B_MR6_GMP59	Bus	Under Voltage	20.000	kV	19.445	97.2	3-Phase
B_MR6_GMP62	Bus	Under Voltage	0.400	kV	0.383	95.7	3-Phase
B_MR6_GMP63	Bus	Under Voltage	20.000	kV	19.273	96.4	3-Phase
B_MR6_GMP65	Bus	Under Voltage	20.000	kV	19.272	96.4	3-Phase
B_MR6_GMP66	Bus	Under Voltage	20.000	kV	19.274	96.4	3-Phase
B_MR6_GMP70	Bus	Under Voltage	20.000	kV	19.102	95.5	3-Phase
Bus_MR1_GMP13	Bus	Under Voltage	0.400	kV	0.391	97.8	3-Phase
Bus_MR1_GMP15	Bus	Under Voltage	0.400	kV	0.390	97.6	3-Phase
Bus_MR1_GMP17	Bus	Under Voltage	0.400	kV	0.389	97.3	3-Phase
Bus_MR1_GMP19	Bus	Under Voltage	0.400	kV	0.388	97.0	3-Phase
Bus_MR1_GMP2	Bus	Over Voltage	20.000	kV	20.540	102.7	3-Phase
Bus_MR1_GMP21	Bus	Under Voltage	0.400	kV	0.387	96.8	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_MR1_GMP23	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_MR1_GMP25	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_MR1_GMP27	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP29	Bus	Under Voltage	0.400	kV	0.382	95.5	3-Phase
Bus_MR1_GMP31	Bus	Under Voltage	0.400	kV	0.385	96.2	3-Phase
Bus_MR1_GMP33	Bus	Under Voltage	0.400	kV	0.385	96.1	3-Phase
Bus_MR1_GMP35	Bus	Under Voltage	0.400	kV	0.384	96.1	3-Phase
Bus_MR1_GMP37	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP44	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP46	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP48	Bus	Under Voltage	0.400	kV	0.384	95.9	3-Phase
Bus_MR1_GMP50	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP52	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP54	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP56	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_MR1_GMP58	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_MR1_GMP6	Bus	Over Voltage	20.000	kV	20.407	102.0	3-Phase
Bus_MR1_GMP60	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_MR1_GMP62	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_MR1_GMP64	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_MR1_GMP66	Bus	Under Voltage	0.400	kV	0.386	96.6	3-Phase
Bus_MR1_GMP73	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP75	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP77	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP79	Bus	Under Voltage	0.400	kV	0.385	96.2	3-Phase
Bus_MR1_GMP81	Bus	Under Voltage	0.400	kV	0.385	96.2	3-Phase
Bus_MR1_GMP83	Bus	Under Voltage	0.400	kV	0.385	96.2	3-Phase
Bus_MR1_GMP87	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP92	Bus	Over Voltage	20.000	kV	20.473	102.4	3-Phase
Bus_MR1_GMP94	Bus	Over Voltage	20.000	kV	20.608	103.0	3-Phase
Bus_MR1_GMP98	Bus	Under Voltage	0.400	kV	0.385	96.4	3-Phase
G_LM1_GM_51	Transformer	Overload	0.025	MVA	0.025	99.7	3-Phase
G_LM1_GM_54	Transformer	Overload	0.050	MVA	0.050	99.6	3-Phase
G_LM3_GMC_155	Transformer	Overload	0.025	MVA	0.025	98.2	3-Phase
G_LM3_GMC_158	Transformer	Overload	0.025	MVA	0.025	98.1	3-Phase
G_LM3_GMC_167	Transformer	Overload	0.025	MVA	0.025	98.1	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
G_LM3_GML_186	Transformer	Overload	0.025	MVA	0.024	97.7	3-Phase
G_LM3_GML_194	Transformer	Overload	0.025	MVA	0.024	97.5	3-Phase
G_LM3_GML_206	Transformer	Overload	0.025	MVA	0.024	97.3	3-Phase
G_LM3_GML_208	Transformer	Overload	0.025	MVA	0.024	97.2	3-Phase
G_LM3_GML_221	Transformer	Overload	0.025	MVA	0.024	97.2	3-Phase
G_LM3_GML_222	Transformer	Overload	0.025	MVA	0.024	97.2	3-Phase
G_LM3_GML_226	Transformer	Overload	0.025	MVA	0.024	97.1	3-Phase
G_LM3_GML_239	Transformer	Overload	0.025	MVA	0.024	97.1	3-Phase
G_LM3_GML_248	Transformer	Overload	0.025	MVA	0.024	97.1	3-Phase
G_LM3_GML_259	Transformer	Overload	0.025	MVA	0.024	97.0	3-Phase
G_LM4_GM_92	Transformer	Overload	0.050	MVA	0.050	99.7	3-Phase
G_MR4_GM09	Transformer	Overload	0.100	MVA	0.095	95.4	3-Phase
GI MARISA	Bus	Over Voltage	20.000	kV	20.617	103.1	3-Phase

SUMMARY OF TOTAL GENERATION , LOADING & DEMAND

	MW	Mvar	MVA	% PF
Source (Swing Buses):	15.366	11.078	18.942	81.12 Lagging
Source (Non-Swing Buses):	0.000	0.000	0.000	
Total Demand:	15.366	11.078	18.942	81.12 Lagging
Total Motor Load:	11.284	6.993	13.276	85.00 Lagging
Total Static Load:	2.268	1.405	2.668	85.00 Lagging
Total Constant I Load:	0.000	0.000	0.000	
Total Generic Load:	0.000	0.000	0.000	
Apparent Losses:	1.814	2.679		
System Mismatch:	0.000	0.000		

Number of Iterations: 4

LAMPIRAN HASIL SIMULASI SETELAH REKONFIGURASI

JARINGAN DISTRIBUSI

Electrical Transient Analyzer Program

Load Flow Analysis

Loading Category (1): WBP2018

Generation Category (1): Design

Load Diversity Factor: None

	Swing	V-Control	Load	Total
Number of Buses:	2	0	1051	1053

	XFMR2	XFMR3	Reactor	Line/Cable/ Busway	Impedance	Tie PD	Total
Number of Branches:	460	0	0	590	0	1	1051

Method of Solution:	Adaptive Newton-Raphson Method
Maximum No. of Iteration:	99
Precision of Solution:	0.0001000
System Frequency:	50.00 Hz
Unit System:	Metric
Project Filename:	etap sesudah
Output Filename:	D:\Data Nitip\Nitip Yogi\Etap Setelah\Etap Setelah\Etap sesudah\Untitled.lfr

Adjustments

Tolerance	Apply Adjustments	Individual /Global	Percent
Transformer Impedance:	Yes	Individual	
Reactor Impedance:	Yes	Individual	
Overload Heater Resistance:	No		
Transmission Line Length:	No		
Cable / Busway Length:	No		

Temperature Correction	Apply Adjustments	Individual /Global	Degree C
Transmission Line Resistance:	Yes	Individual	
Cable / Busway Resistance:	Yes	Individual	

Bus Input Data

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_1	20.000	1	100.0	0.0								
Bus_LM1_2	0.400	1	100.0	0.0	0.028	0.017	0.007	0.004				
Bus_LM1_3	20.000	1	100.0	0.0								
Bus_LM1_6	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM1_7	20.000	1	100.0	0.0								
Bus_LM1_8	0.400	1	100.0	0.0	0.033	0.020	0.008	0.005				
Bus_LM1_9	20.000	1	100.0	0.0								
Bus_LM1_10	0.400	1	100.0	0.0	0.002	0.001						
Bus_LM1_11	20.000	1	100.0	0.0								
Bus_LM1_12	0.400	1	100.0	0.0	0.034	0.021	0.008	0.005				
Bus_LM1_13	20.000	1	100.0	0.0								
Bus_LM1_14	0.400	1	100.0	0.0	0.022	0.014	0.006	0.003				
Bus_LM1_15	20.000	1	100.0	0.0								
Bus_LM1_16	0.400	1	100.0	0.0	0.018	0.011	0.004	0.003				
Bus_LM1_17	20.000	1	100.0	0.0								
Bus_LM1_18	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM1_19	20.000	1	100.0	0.0								
Bus_LM1_20	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_21	20.000	1	100.0	0.0								
Bus_LM1_25	20.000	1	100.0	0.0								
Bus_LM1_26	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM1_31	20.000	1	100.0	0.0								
Bus_LM1_32	0.400	1	100.0	0.0	0.016	0.010	0.004	0.002				
Bus_LM1_33	20.000	1	100.0	0.0								
Bus_LM1_34	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
Bus_LM1_35	20.000	1	100.0	0.0								
Bus_LM1_36	0.400	1	100.0	0.0	0.008	0.005	0.002	0.001				
Bus_LM1_37	20.000	1	100.0	0.0								
Bus_LM1_38	0.400	1	100.0	0.0	0.019	0.012	0.005	0.003				
Bus_LM1_39	20.000	1	100.0	0.0								
Bus_LM1_40	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
Bus_LM1_41	20.000	1	100.0	0.0								
Bus_LM1_42	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_43	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
Bus_LM1_44	20.000	1	100.0	0.0								
Bus_LM1_45	0.400	1	100.0	0.0	0.016	0.010	0.004	0.003				
Bus_LM1_46	20.000	1	100.0	0.0								
Bus_LM1_47	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_58	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
Bus_LM1_59	20.000	1	100.0	0.0								
Bus_LM1_60	0.400	1	100.0	0.0	0.016	0.010	0.004	0.002				
Bus_LM1_61	0.400	1	100.0	0.0	0.018	0.011	0.004	0.003				
Bus_LM1_62	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
Bus_LM1_63	20.000	1	100.0	0.0								
Bus_LM1_64	20.000	1	100.0	0.0								
Bus_LM1_65	20.000	1	100.0	0.0								
Bus_LM1_66	20.000	1	100.0	0.0								
Bus_LM1_67	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
Bus_LM1_70	20.000	1	100.0	0.0								
Bus_LM1_71	0.400	1	100.0	0.0	0.022	0.014	0.006	0.003				
Bus_LM1_74	20.000	1	100.0	0.0								
Bus_LM1_75	0.400	1	100.0	0.0	0.014	0.009	0.004	0.002				
Bus_LM1_76	20.000	1	100.0	0.0								
Bus_LM1_77	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
Bus_LM1_78	20.000	1	100.0	0.0								
Bus_LM1_79	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
Bus_LM1_80	20.000	1	100.0	0.0								
Bus_LM1_81	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_82	20.000	1	100.0	0.0								
Bus_LM1_83	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_84	20.000	1	100.0	0.0								
Bus_LM1_85	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_86	20.000	1	100.0	0.0								
Bus_LM1_87	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_91	20.000	1	100.0	0.0								
Bus_LM1_92	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_93	20.000	1	100.0	0.0								
Bus_LM1_94	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_95	20.000	1	100.0	0.0								
Bus_LM1_96	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_97	20.000	1	100.0	0.0								
Bus_LM1_98	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM1_99	20.000	1	100.0	0.0								
Bus_LM1_100	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_101	20.000	1	100.0	0.0								
Bus_LM1_102	0.400	1	100.0	0.0	0.010	0.006	0.002	0.001				
Bus_LM1_111	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_112	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
Bus_LM1_113	20.000	1	100.0	0.0								
Bus_LM1_114	20.000	1	100.0	0.0								
Bus_LM1_115	20.000	1	100.0	0.0								
Bus_LM1_116	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
Bus_LM1_123	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_124	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
Bus_LM1_125	20.000	1	100.0	0.0								
Bus_LM1_126	20.000	1	100.0	0.0								
Bus_LM1_127	20.000	1	100.0	0.0								
Bus_LM1_128	0.400	1	100.0	0.0	0.034	0.021	0.008	0.005				
Bus_LM1_135	0.400	1	100.0	0.0	0.002	0.001						
Bus_LM1_136	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_137	20.000	1	100.0	0.0								
Bus_LM1_138	20.000	1	100.0	0.0								
Bus_LM1_139	20.000	1	100.0	0.0								
Bus_LM1_140	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_147	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
Bus_LM1_148	0.400	1	100.0	0.0	0.010	0.006	0.002	0.001				
Bus_LM1_149	20.000	1	100.0	0.0								
Bus_LM1_150	20.000	1	100.0	0.0								
Bus_LM1_151	20.000	1	100.0	0.0								
Bus_LM1_152	0.400	1	100.0	0.0	0.029	0.018	0.007	0.004				
Bus_LM1_153	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_154	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
Bus_LM1_155	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_156	20.000	1	100.0	0.0								
Bus_LM1_157	20.000	1	100.0	0.0								
Bus_LM1_158	0.400	1	100.0	0.0	0.003	0.002						
Bus_LM1_159	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_160	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM1_161	20.000	1	100.0	0.0								
Bus_LM1_162	20.000	1	100.0	0.0								
Bus_LM1_163	20.000	1	100.0	0.0								
Bus_LM1_164	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_167	20.000	1	100.0	0.0								
Bus_LM1_168	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM1_169	20.000	1	100.0	0.0								
Bus_LM1_189	20.000	1	100.0	0.0								
Bus_LM1_190	20.000	1	100.0	0.0								
Bus_LM1_191	20.000	1	100.0	0.0								
Bus_LM1_193	20.000	1	100.0	0.0								
Bus_LM1_195	20.000	1	100.0	0.0								
Bus_LM1_196	20.000	1	100.0	0.0								
Bus_LM1_197	20.000	1	100.0	0.0								
Bus_LM1_198	20.000	1	100.0	0.0								
Bus_LM1_200	20.000	1	100.0	0.0								
Bus_LM1_202	20.000	1	100.0	0.0								
Bus_LM1_203	20.000	1	100.0	0.0								
Bus_LM1_204	20.000	1	100.0	0.0								
Bus_LM1_209	20.000	1	100.0	0.0								
Bus_LM1_210	20.000	1	100.0	0.0								
Bus_LM1_211	20.000	1	100.0	0.0								
Bus_LM1_212	20.000	1	100.0	0.0								
Bus_LM1_215	20.000	1	100.0	0.0								
Bus_LM1_217	20.000	1	100.0	0.0								
Bus_LM1_218	20.000	1	100.0	0.0								
Bus_LM1_219	20.000	1	100.0	0.0								
Bus_LM1_220	20.000	1	100.0	0.0								
Bus_LM1_221	20.000	1	100.0	0.0								
Bus_LM1_222	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_224	20.000	1	100.0	0.0								
Bus_LM1_226	20.000	1	100.0	0.0								
Bus_LM1_227	20.000	1	100.0	0.0								
Bus_LM1_228	20.000	1	100.0	0.0								
Bus_LM1_229	20.000	1	100.0	0.0								
Bus_LM1_230	20.000	1	100.0	0.0								
Bus_LM1_231	20.000	1	100.0	0.0								
Bus_LM1_232	20.000	1	100.0	0.0								
Bus_LM1_233	20.000	1	100.0	0.0								
Bus_LM1_236	20.000	1	100.0	0.0								
Bus_LM1_237	20.000	1	100.0	0.0								
Bus_LM1_238	20.000	1	100.0	0.0								
Bus_LM1_239	20.000	1	100.0	0.0								
Bus_LM1_240	20.000	1	100.0	0.0								
Bus_LM1_241	20.000	1	100.0	0.0								
Bus_LM1_242	20.000	1	100.0	0.0								
Bus_LM1_243	20.000	1	100.0	0.0								
Bus_LM1_244	20.000	1	100.0	0.0								
Bus_LM1_245	20.000	1	100.0	0.0								
Bus_LM1_249	20.000	1	100.0	0.0								
Bus_LM1_251	20.000	1	100.0	0.0								
Bus_LM1_253	20.000	1	100.0	0.0								
Bus_LM1_254	20.000	1	100.0	0.0								
Bus_LM1_255	20.000	1	100.0	0.0								
Bus_LM1_258	20.000	1	100.0	0.0								
Bus_LM1_259	20.000	1	100.0	0.0								
Bus_LM1_264	20.000	1	100.0	0.0								
Bus_LM1_265	20.000	1	100.0	0.0								
Bus_LM1_266	20.000	1	100.0	0.0								
Bus_LM1_267	20.000	1	100.0	0.0								
Bus_LM1_270	20.000	1	100.0	0.0								
Bus_LM1_271	20.000	1	100.0	0.0								
Bus_LM1_274	20.000	1	100.0	0.0								
Bus_LM1_275	20.000	1	100.0	0.0								
Bus_LM1_277	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_278	20.000	1	100.0	0.0								
Bus_LM1_281	20.000	1	100.0	0.0								
Bus_LM1_282	20.000	1	100.0	0.0								
Bus_LM1_283	20.000	1	100.0	0.0								
Bus_LM1_284	20.000	1	100.0	0.0								
Bus_LM1_285	20.000	1	100.0	0.0								
Bus_LM1_286	20.000	1	100.0	0.0								
Bus_LM1_288	20.000	1	100.0	0.0								
Bus_LM1_292	20.000	1	100.0	0.0								
Bus_LM1_293	20.000	1	100.0	0.0								
Bus_LM1_294	20.000	1	100.0	0.0								
Bus_LM1_298	20.000	1	100.0	0.0								
Bus_LM1_299	20.000	1	100.0	0.0								
Bus_LM1_300	20.000	1	100.0	0.0								
Bus_LM1_304	20.000	1	100.0	0.0								
Bus_LM1_305	20.000	1	100.0	0.0								
Bus_LM1_306	20.000	1	100.0	0.0								
Bus_LM1_307	20.000	1	100.0	0.0								
Bus_LM1_309	20.000	1	100.0	0.0								
Bus_LM1_312	20.000	1	100.0	0.0								
Bus_LM1_313	20.000	1	100.0	0.0								
Bus_LM1_318	20.000	1	100.0	0.0								
Bus_LM1_319	20.000	1	100.0	0.0								
Bus_LM1_320	20.000	1	100.0	0.0								
Bus_LM1_321	20.000	1	100.0	0.0								
Bus_LM1_322	20.000	1	100.0	0.0								
Bus_LM1_327	20.000	1	100.0	0.0								
Bus_LM1_328	20.000	1	100.0	0.0								
Bus_LM1_329	20.000	1	100.0	0.0								
Bus_LM1_330	20.000	1	100.0	0.0								
Bus_LM1_335	20.000	1	100.0	0.0								
Bus_LM1_336	20.000	1	100.0	0.0								
Bus_LM1_337	20.000	1	100.0	0.0								
Bus_LM1_338	20.000	1	100.0	0.0								
Bus_LM1_343	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM1_344	20.000	1	100.0	0.0								
Bus_LM1_345	20.000	1	100.0	0.0								
Bus_LM1_346	20.000	1	100.0	0.0								
Bus_LM1_353	20.000	1	100.0	0.0								
Bus_LM1_354	20.000	1	100.0	0.0								
Bus_LM1_355	20.000	1	100.0	0.0								
Bus_LM1_356	20.000	1	100.0	0.0								
Bus_LM1_357	20.000	1	100.0	0.0								
Bus_LM1_358	20.000	1	100.0	0.0								
Bus_LM1_359	20.000	1	100.0	0.0								
Bus_LM1_361	20.000	1	100.0	0.0								
Bus_LM1_362	20.000	1	100.0	0.0								
Bus_LM1_366	20.000	1	100.0	0.0								
Bus_LM1_367	20.000	1	100.0	0.0								
Bus_LM1_368	20.000	1	100.0	0.0								
Bus_LM1_369	20.000	1	100.0	0.0								
Bus_LM1_375	20.000	1	100.0	0.0								
Bus_LM1_376	20.000	1	100.0	0.0								
Bus_LM1_377	20.000	1	100.0	0.0								
Bus_LM1_380	20.000	1	100.0	0.0								
Bus_LM1_383	20.000	1	100.0	0.0								
Bus_LM1_384	20.000	1	100.0	0.0								
Bus_LM1_385	20.000	1	100.0	0.0								
Bus_LM1_386	20.000	1	100.0	0.0								
Bus_LM3_3	20.000	1	100.0	0.0								
Bus_LM3_4	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_5	20.000	1	100.0	0.0								
Bus_LM3_6	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_7	20.000	1	100.0	0.0								
Bus_LM3_8	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_9	20.000	1	100.0	0.0								
Bus_LM3_10	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_11	20.000	1	100.0	0.0								
Bus_LM3_12	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_13	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_14	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
Bus_LM3_27	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_28	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_29	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_30	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_31	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
Bus_LM3_32	20.000	1	100.0	0.0								
Bus_LM3_33	20.000	1	100.0	0.0								
Bus_LM3_34	20.000	1	100.0	0.0								
Bus_LM3_35	20.000	1	100.0	0.0								
Bus_LM3_36	20.000	1	100.0	0.0								
Bus_LM3_37	20.000	1	100.0	0.0								
Bus_LM3_38	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_40	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_41	20.000	1	100.0	0.0								
Bus_LM3_56	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_57	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_58	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_59	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_60	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_61	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_62	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_63	20.000	1	100.0	0.0								
Bus_LM3_64	20.000	1	100.0	0.0								
Bus_LM3_65	20.000	1	100.0	0.0								
Bus_LM3_66	20.000	1	100.0	0.0								
Bus_LM3_67	20.000	1	100.0	0.0								
Bus_LM3_68	20.000	1	100.0	0.0								
Bus_LM3_69	20.000	1	100.0	0.0								
Bus_LM3_74	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_75	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_76	20.000	1	100.0	0.0								
Bus_LM3_77	20.000	1	100.0	0.0								
Bus_LM3_78	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_79	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_80	20.000	1	100.0	0.0								
Bus_LM3_81	20.000	1	100.0	0.0								
Bus_LM3_82	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_83	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_84	20.000	1	100.0	0.0								
Bus_LM3_85	20.000	1	100.0	0.0								
Bus_LM3_86	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_87	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_88	20.000	1	100.0	0.0								
Bus_LM3_89	20.000	1	100.0	0.0								
Bus_LM3_94	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_95	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_96	20.000	1	100.0	0.0								
Bus_LM3_97	20.000	1	100.0	0.0								
Bus_LM3_108	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_109	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_110	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_111	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_112	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_113	20.000	1	100.0	0.0								
Bus_LM3_114	20.000	1	100.0	0.0								
Bus_LM3_115	20.000	1	100.0	0.0								
Bus_LM3_116	20.000	1	100.0	0.0								
Bus_LM3_117	20.000	1	100.0	0.0								
Bus_LM3_128	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_129	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_130	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_131	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_132	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_133	20.000	1	100.0	0.0								
Bus_LM3_134	20.000	1	100.0	0.0								
Bus_LM3_135	20.000	1	100.0	0.0								
Bus_LM3_136	20.000	1	100.0	0.0								
Bus_LM3_137	20.000	1	100.0	0.0								
Bus_LM3_140	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_141	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_144	20.000	1	100.0	0.0								
Bus_LM3_145	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_146	20.000	1	100.0	0.0								
Bus_LM3_147	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_152	20.000	1	100.0	0.0								
Bus_LM3_153	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_156	20.000	1	100.0	0.0								
Bus_LM3_157	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_159	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_160	20.000	1	100.0	0.0								
Bus_LM3_161	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_162	20.000	1	100.0	0.0								
Bus_LM3_163	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_164	20.000	1	100.0	0.0								
Bus_LM3_165	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_166	20.000	1	100.0	0.0								
Bus_LM3_167	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_170	20.000	1	100.0	0.0								
Bus_LM3_171	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_173	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_175	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_176	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_177	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_178	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_180	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_182	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_183	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_184	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_188	20.000	1	100.0	0.0								
Bus_LM3_188_	20.000	1	100.0	0.0								
Bus_LM3_189	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_191	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_192	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_193	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_194	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_196	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
Bus_LM3_198	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_LM3_199	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_200	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_201	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_202	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_203	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
Bus_LM3_205	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_207	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_208	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_209	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_210	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_211	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_212	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_213	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_214	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_217	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_218	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_219	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_220	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_221	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_222	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_223	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_224	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_225	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_226	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_230	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_232	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_234	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_235	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_236	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_239	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_240	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_245	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_246	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_247	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_248	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_251	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_252	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_255	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_256	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_258	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_261	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_262	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_263	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_264	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_265	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_266	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_268	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_272	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_273	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_274	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_278	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_279	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_280	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_284	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_285	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_286	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_288	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_291	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_292	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_297	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_298	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_299	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_300	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_305	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_306	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_307	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_308	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_LM3_313	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_314	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_315	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_316	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_321	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_322	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_323	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_324	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_331	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_332	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_333	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_334	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_335	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_336	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_338	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_339	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_343	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
Bus_LM3_344	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_345	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_350	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_351	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_352	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_354	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_357	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_358	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_359	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_360	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_LM3_362	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
Bus_MR1_GMP1	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
Bus_MR1_GMP2	20.000	1	100.0	0.0								
Bus_MR1_GMP5	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
Bus_MR1_GMP6	20.000	1	100.0	0.0								
Bus_MR1_GMP7	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP8	20.000	1	100.0	0.0								
Bus_MR1_GMP9	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_MR1_GMP10	20.000	1	100.0	0.0								
Bus_MR1_GMP11	0.400	1	100.0	0.0	0.102	0.063	0.026	0.016				
Bus_MR1_GMP12	20.000	1	100.0	0.0								
Bus_MR1_GMP13	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP14	20.000	1	100.0	0.0								
Bus_MR1_GMP15	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP16	20.000	1	100.0	0.0								
Bus_MR1_GMP17	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP18	20.000	1	100.0	0.0								
Bus_MR1_GMP19	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP20	20.000	1	100.0	0.0								
Bus_MR1_GMP21	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP22	20.000	1	100.0	0.0								
Bus_MR1_GMP23	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP24	20.000	1	100.0	0.0								
Bus_MR1_GMP25	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP26	20.000	1	100.0	0.0								
Bus_MR1_GMP27	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP28	20.000	1	100.0	0.0								
Bus_MR1_GMP29	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
Bus_MR1_GMP30	20.000	1	100.0	0.0								
Bus_MR1_GMP31	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP32	20.000	1	100.0	0.0								
Bus_MR1_GMP33	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP34	20.000	1	100.0	0.0								
Bus_MR1_GMP35	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP36	20.000	1	100.0	0.0								
Bus_MR1_GMP37	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP38	20.000	1	100.0	0.0								
Bus_MR1_GMP43	20.000	1	100.0	0.0								
Bus_MR1_GMP44	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP45	20.000	1	100.0	0.0								
Bus_MR1_GMP46	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP47	20.000	1	100.0	0.0								
Bus_MR1_GMP48	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_MR1_GMP49	20.000	1	100.0	0.0								
Bus_MR1_GMP50	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP51	20.000	1	100.0	0.0								
Bus_MR1_GMP52	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP53	20.000	1	100.0	0.0								
Bus_MR1_GMP54	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP55	20.000	1	100.0	0.0								
Bus_MR1_GMP56	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP57	20.000	1	100.0	0.0								
Bus_MR1_GMP58	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP59	20.000	1	100.0	0.0								
Bus_MR1_GMP60	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP61	20.000	1	100.0	0.0								
Bus_MR1_GMP62	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP63	20.000	1	100.0	0.0								
Bus_MR1_GMP64	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP65	20.000	1	100.0	0.0								
Bus_MR1_GMP66	0.400	1	100.0	0.0	0.082	0.051	0.020	0.013				
Bus_MR1_GMP72	20.000	1	100.0	0.0								
Bus_MR1_GMP73	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP74	20.000	1	100.0	0.0								
Bus_MR1_GMP75	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP76	20.000	1	100.0	0.0								
Bus_MR1_GMP77	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP78	20.000	1	100.0	0.0								
Bus_MR1_GMP79	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
Bus_MR1_GMP80	20.000	1	100.0	0.0								
Bus_MR1_GMP81	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP82	20.000	1	100.0	0.0								
Bus_MR1_GMP83	0.400	1	100.0	0.0	0.054	0.034	0.014	0.008				
Bus_MR1_GMP86	20.000	1	100.0	0.0								
Bus_MR1_GMP87	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
Bus_MR1_GMP92	20.000	1	100.0	0.0								
Bus_MR1_GMP93	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
Bus_MR1_GMP94	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
Bus_MR1_GMP97	20.000	1	100.0	0.0								
Bus_MR1_GMP98	0.400	1	100.0	0.0	0.027	0.017	0.007	0.004				
B_AG2_GK7	20.000	1	100.0	0.0								
B_GI_MARISA	150.000	1	100.0	0.0								
B_LM3	20.000	1	100.0	0.0								
B_LMT1_GMT1	20.000	1	100.0	0.0								
B_LMT1_GMT2	0.400	1	100.0	0.0	0.059	0.037	0.015	0.009				
B_LMT1_GMT3	20.000	1	100.0	0.0								
B_LMT1_GMT7	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
B_LMT1_GMT8	20.000	1	100.0	0.0								
B_LMT1_GMT9	20.000	1	100.0	0.0								
B_LMT1_GMT16	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_LMT1_GMT17	20.000	1	100.0	0.0								
B_LMT1_GMT18	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_LMT1_GMT19	20.000	1	100.0	0.0								
B_LMT1_GMT20	20.000	1	100.0	0.0								
B_LMT1_GMT21	20.000	1	100.0	0.0								
B_LMT1_GMT25	0.400	1	100.0	0.0	0.003	0.002						
B_LMT1_GMT27	20.000	1	100.0	0.0								
B_LMT1_GMT28	20.000	1	100.0	0.0								
B_LMT1_GMT32	0.400	1	100.0	0.0	0.022	0.013	0.005	0.003				
B_LMT1_GMT33	20.000	1	100.0	0.0								
B_LMT1_GMT34	20.000	1	100.0	0.0								
B_LMT1_GMT35	20.000	1	100.0	0.0								
B_LMT1_GMT39	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
B_LMT1_GMT41	20.000	1	100.0	0.0								
B_LMT1_GMT42	20.000	1	100.0	0.0								
B_LMT1_GMT45	0.400	1	100.0	0.0	0.032	0.020	0.008	0.005				
B_LMT1_GMT46	20.000	1	100.0	0.0								
B_LMT1_GMT47	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT1_GMT48	20.000	1	100.0	0.0								
B_LMT1_GMT55	0.400	1	100.0	0.0	0.002	0.001						
B_LMT1_GMT56	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
B_LMT1_GMT57	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
B_LMT1_GMT58	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT59	20.000	1	100.0	0.0								
B_LMT1_GMT60	20.000	1	100.0	0.0								
B_LMT1_GMT61	20.000	1	100.0	0.0								
B_LMT1_GMT66	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT1_GMT67	0.400	1	100.0	0.0	0.007	0.005	0.002	0.001				
B_LMT1_GMT68	20.000	1	100.0	0.0								
B_LMT1_GMT69	20.000	1	100.0	0.0								
B_LMT1_GMT75	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
B_LMT1_GMT76	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_LMT1_GMT77	20.000	1	100.0	0.0								
B_LMT1_GMT78	20.000	1	100.0	0.0								
B_LMT1_GMT79	20.000	1	100.0	0.0								
B_LMT1_GMT80	20.000	1	100.0	0.0								
B_LMT1_GMT84	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT1_GMT85	20.000	1	100.0	0.0								
B_LMT1_GMT86	20.000	1	100.0	0.0								
B_LMT1_GMT90	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT1_GMT91	20.000	1	100.0	0.0								
B_LMT1_GMT92	20.000	1	100.0	0.0								
B_LMT1_GMT98	0.400	1	100.0	0.0	0.048	0.030	0.012	0.007				
B_LMT1_GMT99	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT1_GMT100	20.000	1	100.0	0.0								
B_LMT1_GMT101	20.000	1	100.0	0.0								
B_LMT1_GMT102	20.000	1	100.0	0.0								
B_LMT1_GMT103	20.000	1	100.0	0.0								
B_LMT1_GMT107	0.400	1	100.0	0.0	0.056	0.035	0.014	0.009				
B_LMT1_GMT108	20.000	1	100.0	0.0								
B_LMT1_GMT109	20.000	1	100.0	0.0								
B_LMT1_GMT110	20.000	1	100.0	0.0								
B_LMT1_GMT116	20.000	1	100.0	0.0								
B_LMT1_GMT117	0.400	1	100.0	0.0	0.061	0.038	0.015	0.009				
B_LMT1_GMT118	0.400	1	100.0	0.0	0.029	0.018	0.007	0.004				
B_LMT1_GMT119	20.000	1	100.0	0.0								
B_LMT1_GMT120	20.000	1	100.0	0.0								
B_LMT1_GMT121	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT125	0.400	1	100.0	0.0	0.037	0.023	0.009	0.006				
B_LMT1_GMT126	20.000	1	100.0	0.0								
B_LMT1_GMT127	20.000	1	100.0	0.0								
B_LMT1_GMT128	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT1_GMT129	20.000	1	100.0	0.0								
B_LMT1_GMT130	20.000	1	100.0	0.0								
B_LMT1_GMT137	0.400	1	100.0	0.0	0.025	0.016	0.006	0.004				
B_LMT1_GMT138	20.000	1	100.0	0.0								
B_LMT1_GMT139	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_LMT1_GMT140	20.000	1	100.0	0.0								
B_LMT1_GMT141	20.000	1	100.0	0.0								
B_LMT1_GMT142	20.000	1	100.0	0.0								
B_LMT1_GMT146	0.400	1	100.0	0.0	0.049	0.030	0.012	0.008				
B_LMT1_GMT147	20.000	1	100.0	0.0								
B_LMT1_GMT148	20.000	1	100.0	0.0								
B_LMT1_GMT152	20.000	1	100.0	0.0								
B_LMT1_GMT153	0.400	1	100.0	0.0	0.027	0.016	0.007	0.004				
B_LMT1_GMT154	20.000	1	100.0	0.0								
B_LMT1_GMT155	20.000	1	100.0	0.0								
B_LMT1_GMT156	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT1_GMT157	20.000	1	100.0	0.0								
B_LMT1_GMT162	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
B_LMT1_GMT163	20.000	1	100.0	0.0								
B_LMT1_GMT164	20.000	1	100.0	0.0								
B_LMT1_GMT165	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT1_GMT169	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT1_GMT170	20.000	1	100.0	0.0								
B_LMT1_GMT171	20.000	1	100.0	0.0								
B_LMT1_GMT179	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT1_GMT180	20.000	1	100.0	0.0								
B_LMT1_GMT181	20.000	1	100.0	0.0								
B_LMT1_GMT182	0.400	1	100.0	0.0	0.026	0.016	0.006	0.004				
B_LMT1_GMT183	20.000	1	100.0	0.0								
B_LMT1_GMT187	0.400	1	100.0	0.0	0.039	0.024	0.010	0.006				
B_LMT1_GMT188	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT189	20.000	1	100.0	0.0								
B_LMT1_GMT190	0.400	1	100.0	0.0	0.003	0.002						
B_LMT1_GMT191	20.000	1	100.0	0.0								
B_LMT1_GMT192	20.000	1	100.0	0.0								
B_LMT1_GMT193	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT1_GMT194	20.000	1	100.0	0.0								
B_LMT1_GMT195	20.000	1	100.0	0.0								
B_LMT1_GMT199	20.000	1	100.0	0.0								
B_LMT1_GMT200	0.400	1	100.0	0.0	0.037	0.023	0.009	0.006				
B_LMT1_GMT201	20.000	1	100.0	0.0								
B_LMT1_GMT202	20.000	1	100.0	0.0								
B_LMT1_GMT203	0.400	1	100.0	0.0	0.024	0.015	0.006	0.004				
B_LMT1_GMT207	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT1_GMT208	20.000	1	100.0	0.0								
B_LMT1_GMT209	20.000	1	100.0	0.0								
B_LMT1_GMT213	0.400	1	100.0	0.0	0.047	0.029	0.012	0.007				
B_LMT1_GMT215	20.000	1	100.0	0.0								
B_LMT1_GMT218	0.400	1	100.0	0.0	0.042	0.026	0.011	0.007				
B_LMT1_GMT219	20.000	1	100.0	0.0								
B_LMT1_GMT223	0.400	1	100.0	0.0	0.029	0.018	0.007	0.005				
B_LMT1_GMT224	20.000	1	100.0	0.0								
B_LMT1_GMT225	20.000	1	100.0	0.0								
B_LMT1_GMT226	0.400	1	100.0	0.0	0.046	0.028	0.011	0.007				
B_LMT1_GMT227	20.000	1	100.0	0.0								
B_LMT1_GMT228	20.000	1	100.0	0.0								
B_LMT1_GMT235	0.400	1	100.0	0.0	0.033	0.021	0.008	0.005				
B_LMT1_GMT236	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT1_GMT237	20.000	1	100.0	0.0								
B_LMT1_GMT238	20.000	1	100.0	0.0								
B_LMT1_GMT243	0.400	1	100.0	0.0	0.045	0.028	0.011	0.007				
B_LMT1_GMT244	20.000	1	100.0	0.0								
B_LMT1_GMT245	20.000	1	100.0	0.0								
B_LMT1_GMT246	0.400	1	100.0	0.0	0.053	0.033	0.013	0.008				
B_LMT1_GMT250	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT1_GMT251	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT1_GMT252	20.000	1	100.0	0.0								
B_LMT1_GMT253	0.400	1	100.0	0.0	0.003	0.002						
B_LMT1_GMT254	20.000	1	100.0	0.0								
B_LMT1_GMT255	20.000	1	100.0	0.0								
B_LMT2_1	20.000	1	100.0	0.0								
B_LMT2_GMT1	20.000	1	100.0	0.0								
B_LMT2_GMT2	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT2_GMT3	20.000	1	100.0	0.0								
B_LMT2_GMT6	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT2_GMT7	20.000	1	100.0	0.0								
B_LMT2_GMT10	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT11	20.000	1	100.0	0.0								
B_LMT2_GMT12	20.000	1	100.0	0.0								
B_LMT2_GMT16	20.000	1	100.0	0.0								
B_LMT2_GMT17	0.400	1	100.0	0.0	0.027	0.016	0.007	0.004				
B_LMT2_GMT18	20.000	1	100.0	0.0								
B_LMT2_GMT23	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT24	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_LMT2_GMT25	20.000	1	100.0	0.0								
B_LMT2_GMT26	20.000	1	100.0	0.0								
B_LMT2_GMT27	0.400	1	100.0	0.0	0.029	0.018	0.007	0.005				
B_LMT2_GMT28	0.400	1	100.0	0.0	0.008	0.005	0.002	0.001				
B_LMT2_GMT29	20.000	1	100.0	0.0								
B_LMT2_GMT30	20.000	1	100.0	0.0								
B_LMT2_GMT33	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
B_LMT2_GMT34	20.000	1	100.0	0.0								
B_LMT2_GMT35	20.000	1	100.0	0.0								
B_LMT2_GMT39	20.000	1	100.0	0.0								
B_LMT2_GMT40	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT41	20.000	1	100.0	0.0								
B_LMT2_GMT44	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT2_GMT45	20.000	1	100.0	0.0								
B_LMT2_GMT46	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
B_LMT2_GMT47	20.000	1	100.0	0.0								
B_LMT2_GMT52	0.400	1	100.0	0.0	0.022	0.013	0.005	0.003				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT53	0.400	1	100.0	0.0	0.012	0.008	0.003	0.002				
B_LMT2_GMT54	20.000	1	100.0	0.0								
B_LMT2_GMT55	20.000	1	100.0	0.0								
B_LMT2_GMT59	20.000	1	100.0	0.0								
B_LMT2_GMT60	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT2_GMT61	20.000	1	100.0	0.0								
B_LMT2_GMT66	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_LMT2_GMT67	20.000	1	100.0	0.0								
B_LMT2_GMT68	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT69	20.000	1	100.0	0.0								
B_LMT2_GMT70	20.000	1	100.0	0.0								
B_LMT2_GMT71	20.000	1	100.0	0.0								
B_LMT2_GMT75	20.000	1	100.0	0.0								
B_LMT2_GMT76	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT77	20.000	1	100.0	0.0								
B_LMT2_GMT81	20.000	1	100.0	0.0								
B_LMT2_GMT82	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT83	20.000	1	100.0	0.0								
B_LMT2_GMT90	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT91	20.000	1	100.0	0.0								
B_LMT2_GMT92	20.000	1	100.0	0.0								
B_LMT2_GMT93	20.000	1	100.0	0.0								
B_LMT2_GMT94	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_LMT2_GMT95	20.000	1	100.0	0.0								
B_LMT2_GMT108	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
B_LMT2_GMT109	20.000	1	100.0	0.0								
B_LMT2_GMT110	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT111	20.000	1	100.0	0.0								
B_LMT2_GMT112	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT113	20.000	1	100.0	0.0								
B_LMT2_GMT114	20.000	1	100.0	0.0								
B_LMT2_GMT115	20.000	1	100.0	0.0								
B_LMT2_GMT116	20.000	1	100.0	0.0								
B_LMT2_GMT117	20.000	1	100.0	0.0								
B_LMT2_GMT118	0.400	1	100.0	0.0	0.003	0.002						

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT119	20.000	1	100.0	0.0								
B_LMT2_GMT123	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT124	20.000	1	100.0	0.0								
B_LMT2_GMT125	20.000	1	100.0	0.0								
B_LMT2_GMT130	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT131	20.000	1	100.0	0.0								
B_LMT2_GMT132	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_LMT2_GMT133	20.000	1	100.0	0.0								
B_LMT2_GMT145	20.000	1	100.0	0.0								
B_LMT2_GMT146	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
B_LMT2_GMT147	20.000	1	100.0	0.0								
B_LMT2_GMT152	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_LMT2_GMT153	20.000	1	100.0	0.0								
B_LMT2_GMT154	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_LMT2_GMT155	20.000	1	100.0	0.0								
B_LMT2_GMT158	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT159	20.000	1	100.0	0.0								
B_LMT2_GMT160	20.000	1	100.0	0.0								
B_LMT2_GMT161	20.000	1	100.0	0.0								
B_LMT2_GMT165	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_LMT2_GMT166	20.000	1	100.0	0.0								
B_LMT2_GMT167	20.000	1	100.0	0.0								
B_LMT2_GMT168	20.000	1	100.0	0.0								
B_LMT2_GMT175	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_LMT2_GMT176	20.000	1	100.0	0.0								
B_LMT2_GMT177	0.400	1	100.0	0.0	0.001	0.001						
B_LMT2_GMT178	20.000	1	100.0	0.0								
B_LMT2_GMT179	20.000	1	100.0	0.0								
B_LMT2_GMT180	20.000	1	100.0	0.0								
B_LMT2_GMT181	20.000	1	100.0	0.0								
B_LMT2_GMT188	0.400	1	100.0	0.0	0.007	0.005	0.002	0.001				
B_LMT2_GMT189	20.000	1	100.0	0.0								
B_LMT2_GMT190	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT191	20.000	1	100.0	0.0								
B_LMT2_GMT192	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT193	20.000	1	100.0	0.0								
B_LMT2_GMT194	0.400	1	100.0	0.0								
B_LMT2_GMT195	20.000	1	100.0	0.0								
B_LMT2_GMT196	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT197	20.000	1	100.0	0.0								
B_LMT2_GMT198	20.000	1	100.0	0.0								
B_LMT2_GMT199	20.000	1	100.0	0.0								
B_LMT2_GMT203	0.400	1	100.0	0.0	0.027	0.016	0.007	0.004				
B_LMT2_GMT204	20.000	1	100.0	0.0								
B_LMT2_GMT205	20.000	1	100.0	0.0								
B_LMT2_GMT206	0.400	1	100.0	0.0	0.019	0.012	0.005	0.003				
B_LMT2_GMT207	20.000	1	100.0	0.0								
B_LMT2_GMT208	20.000	1	100.0	0.0								
B_LMT2_GMT215	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT2_GMT216	20.000	1	100.0	0.0								
B_LMT2_GMT217	20.000	1	100.0	0.0								
B_LMT2_GMT218	20.000	1	100.0	0.0								
B_LMT2_GMT219	0.400	1	100.0	0.0	0.020	0.013	0.005	0.003				
B_LMT2_GMT220	20.000	1	100.0	0.0								
B_LMT2_GMT221	20.000	1	100.0	0.0								
B_LMT2_GMT228	0.400	1	100.0	0.0	0.019	0.012	0.005	0.003				
B_LMT2_GMT229	20.000	1	100.0	0.0								
B_LMT2_GMT230	0.400	1	100.0	0.0	0.002	0.001						
B_LMT2_GMT231	20.000	1	100.0	0.0								
B_LMT2_GMT232	20.000	1	100.0	0.0								
B_LMT2_GMT233	20.000	1	100.0	0.0								
B_LMT2_GMT243	0.400	1	100.0	0.0	0.003	0.002						
B_LMT2_GMT244	20.000	1	100.0	0.0								
B_LMT2_GMT245	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_LMT2_GMT246	20.000	1	100.0	0.0								
B_LMT2_GMT247	0.400	1	100.0	0.0	0.001	0.001						
B_LMT2_GMT248	20.000	1	100.0	0.0								
B_LMT2_GMT249	20.000	1	100.0	0.0								
B_LMT2_GMT250	20.000	1	100.0	0.0								
B_LMT2_GMT251	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_LMT2_GMT258	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_LMT2_GMT259	20.000	1	100.0	0.0								
B_LMT2_GMT260	0.400	1	100.0	0.0	0.001	0.001						
B_LMT2_GMT261	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_LMT2_GMT262	20.000	1	100.0	0.0								
B_LMT2_GMT263	20.000	1	100.0	0.0								
B_MR3	20.000	1	100.0	0.0								
B_MR04_GM	20.000	1	100.0	0.0								
B_MR04_GM1	20.000	1	100.0	0.0								
B_MR04_GM_1	0.400	1	100.0	0.0	0.025	0.015	0.006	0.004				
B_MR04_GM2	20.000	1	100.0	0.0								
B_MR04_GM_2	0.400	1	100.0	0.0	1.428	0.885	0.357	0.221				
B_MR04_GM3	20.000	1	100.0	0.0								
B_MR04_GM_3	0.400	1	100.0	0.0	0.030	0.019	0.008	0.005				
B_MR04_GM4	20.000	1	100.0	0.0								
B_MR04_GM_4	0.400	1	100.0	0.0	0.009	0.006	0.002	0.001				
B_MR04_GM5	20.000	1	100.0	0.0								
B_MR04_GM_5	0.400	1	100.0	0.0	0.010	0.006	0.002	0.002				
B_MR04_GM6	20.000	1	100.0	0.0								
B_MR04_GM_6	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_MR04_GM7	20.000	1	100.0	0.0								
B_MR04_GM_7	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_MR04_GM8	20.000	1	100.0	0.0								
B_MR04_GM_8	0.400	1	100.0	0.0								
B_MR04_GM9	20.000	1	100.0	0.0								
B_MR04_GM_9	0.400	1	100.0	0.0	0.062	0.038	0.015	0.010				
B_MR04_GM10	20.000	1	100.0	0.0								
B_MR04_GM_10	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR04_GM11	20.000	1	100.0	0.0								
B_MR04_GM_11	0.400	1	100.0	0.0	0.046	0.029	0.012	0.007				
B_MR04_GM12	20.000	1	100.0	0.0								
B_MR04_GM_12	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR04_GM13	20.000	1	100.0	0.0								
B_MR04_GM_13	0.400	1	100.0	0.0	0.079	0.049	0.020	0.012				
B_MR04_GM14	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR04_GM_14	0.400	1	100.0	0.0	0.058	0.036	0.014	0.009				
B_MR04_GM15	20.000	1	100.0	0.0								
B_MR04_GM_15	0.400	1	100.0	0.0	0.045	0.028	0.011	0.007				
B_MR04_GM16	20.000	1	100.0	0.0								
B_MR04_GM_16	0.400	1	100.0	0.0	0.004	0.002						
B_MR04_GM17	20.000	1	100.0	0.0								
B_MR04_GM_17	0.400	1	100.0	0.0	0.028	0.017	0.007	0.004				
B_MR04_GM18	20.000	1	100.0	0.0								
B_MR04_GM_18	0.400	1	100.0	0.0	0.014	0.009	0.003	0.002				
B_MR04_GM19	20.000	1	100.0	0.0								
B_MR04_GM_19	0.400	1	100.0	0.0	0.077	0.048	0.019	0.012				
B_MR04_GM20	20.000	1	100.0	0.0								
B_MR04_GM_20	0.400	1	100.0	0.0	0.051	0.031	0.013	0.008				
B_MR04_GM21	20.000	1	100.0	0.0								
B_MR04_GM_21	0.400	1	100.0	0.0	0.040	0.025	0.010	0.006				
B_MR04_GM22	20.000	1	100.0	0.0								
B_MR04_GM_22	0.400	1	100.0	0.0	0.017	0.010	0.004	0.003				
B_MR04_GM23	20.000	1	100.0	0.0								
B_MR04_GM_23	0.400	1	100.0	0.0	0.048	0.030	0.012	0.007				
B_MR04_GM24	20.000	1	100.0	0.0								
B_MR04_GM_24	0.400	1	100.0	0.0	0.041	0.026	0.010	0.006				
B_MR04_GM25	20.000	1	100.0	0.0								
B_MR04_GM_25	0.400	1	100.0	0.0	0.031	0.019	0.008	0.005				
B_MR04_GM26	20.000	1	100.0	0.0								
B_MR04_GM_26	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR04_GM27	20.000	1	100.0	0.0								
B_MR04_GM_27	0.400	1	100.0	0.0	0.059	0.037	0.015	0.009				
B_MR04_GM28	20.000	1	100.0	0.0								
B_MR04_GM_28	0.400	1	100.0	0.0	0.017	0.010	0.004	0.003				
B_MR04_GM29	20.000	1	100.0	0.0								
B_MR04_GM_29	0.400	1	100.0	0.0	0.026	0.016	0.006	0.004				
B_MR04_GM30	20.000	1	100.0	0.0								
B_MR04_GM_30	0.400	1	100.0	0.0	0.053	0.033	0.013	0.008				
B_MR04_GM31	20.000	1	100.0	0.0								
B_MR04_GM_31	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR04_GM32	20.000	1	100.0	0.0								
B_MR04_GM_32	0.400	1	100.0	0.0	0.003	0.002						
B_MR04_GM33	20.000	1	100.0	0.0								
B_MR04_GM_33	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR04_GM34	20.000	1	100.0	0.0								
B_MR04_GM_34	0.400	1	100.0	0.0	0.055	0.034	0.014	0.009				
B_MR04_GM35	20.000	1	100.0	0.0								
B_MR04_GM_35	0.400	1	100.0	0.0	0.065	0.041	0.016	0.010				
B_MR04_GM36	20.000	1	100.0	0.0								
B_MR04_GM_36	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_MR04_GM37	20.000	1	100.0	0.0								
B_MR04_GM_37	0.400	1	100.0	0.0	0.018	0.011	0.005	0.003				
B_MR04_GM38	20.000	1	100.0	0.0								
B_MR04_GM_38	0.400	1	100.0	0.0	0.043	0.026	0.011	0.007				
B_MR04_GM39	20.000	1	100.0	0.0								
B_MR04_GM_39	0.400	1	100.0	0.0	0.040	0.024	0.010	0.006				
B_MR04_GM40	20.000	1	100.0	0.0								
B_MR04_GM_40	0.400	1	100.0	0.0	0.043	0.027	0.011	0.007				
B_MR04_GM41	20.000	1	100.0	0.0								
B_MR04_GM_41	0.400	1	100.0	0.0	0.048	0.029	0.012	0.007				
B_MR04_GM42	20.000	1	100.0	0.0								
B_MR04_GM_42	0.400	1	100.0	0.0	0.014	0.009	0.003	0.002				
B_MR04_GM43	20.000	1	100.0	0.0								
B_MR04_GM_43	0.400	1	100.0	0.0	0.011	0.007	0.003	0.002				
B_MR04_GM44	20.000	1	100.0	0.0								
B_MR04_GM_44	0.400	1	100.0	0.0	0.056	0.035	0.014	0.009				
B_MR04_GM45	20.000	1	100.0	0.0								
B_MR04_GM_45	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR04_GM46	20.000	1	100.0	0.0								
B_MR04_GM_46	0.400	1	100.0	0.0	0.035	0.022	0.009	0.005				
B_MR04_GM47	20.000	1	100.0	0.0								
B_MR04_GM_47	0.400	1	100.0	0.0	0.041	0.025	0.010	0.006				
B_MR04_GM48	20.000	1	100.0	0.0								
B_MR04_GM_48	0.400	1	100.0	0.0	0.030	0.019	0.007	0.005				
B_MR04_GM49	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR04_GM_49	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
B_MR6_GMP1	20.000	1	100.0	0.0								
B_MR6_GMP2	20.000	1	100.0	0.0								
B_MR6_GMP3	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR6_GMP4	20.000	1	100.0	0.0								
B_MR6_GMP6	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP7	20.000	1	100.0	0.0								
B_MR6_GMP10	0.400	1	100.0	0.0	0.017	0.011	0.004	0.003				
B_MR6_GMP11	20.000	1	100.0	0.0								
B_MR6_GMP12	0.400	1	100.0	0.0	0.010	0.006	0.003	0.002				
B_MR6_GMP13	20.000	1	100.0	0.0								
B_MR6_GMP14	0.400	1	100.0	0.0	0.033	0.021	0.008	0.005				
B_MR6_GMP15	20.000	1	100.0	0.0								
B_MR6_GMP16	20.000	1	100.0	0.0								
B_MR6_GMP19	20.000	1	100.0	0.0								
B_MR6_GMP20	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_MR6_GMP21	20.000	1	100.0	0.0								
B_MR6_GMP24	0.400	1	100.0	0.0	0.020	0.012	0.005	0.003				
B_MR6_GMP25	20.000	1	100.0	0.0								
B_MR6_GMP26	20.000	1	100.0	0.0								
B_MR6_GMP30	20.000	1	100.0	0.0								
B_MR6_GMP31	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_MR6_GMP32	20.000	1	100.0	0.0								
B_MR6_GMP35	0.400	1	100.0	0.0	0.097	0.060	0.024	0.015				
B_MR6_GMP36	20.000	1	100.0	0.0								
B_MR6_GMP37	20.000	1	100.0	0.0								
B_MR6_GMP42	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_MR6_GMP43	0.400	1	100.0	0.0	0.008	0.005	0.002	0.001				
B_MR6_GMP44	20.000	1	100.0	0.0								
B_MR6_GMP45	20.000	1	100.0	0.0								
B_MR6_GMP46	20.000	1	100.0	0.0								
B_MR6_GMP51	0.400	1	100.0	0.0	0.016	0.010	0.004	0.002				
B_MR6_GMP52	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMP53	20.000	1	100.0	0.0								
B_MR6_GMP54	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR6_GMP55	20.000	1	100.0	0.0								
B_MR6_GMP58	0.400	1	100.0	0.0	0.005	0.003	0.001	0.001				
B_MR6_GMP59	20.000	1	100.0	0.0								
B_MR6_GMP62	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
B_MR6_GMP63	20.000	1	100.0	0.0								
B_MR6_GMP64	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP65	20.000	1	100.0	0.0								
B_MR6_GMP66	20.000	1	100.0	0.0								
B_MR6_GMP69	0.400	1	100.0	0.0	0.041	0.026	0.010	0.006				
B_MR6_GMP70	20.000	1	100.0	0.0								
B_MR6_GMP71	0.400	1	100.0	0.0	0.007	0.004	0.002	0.001				
B_MR6_GMP72	20.000	1	100.0	0.0								
B_MR6_GMP73	20.000	1	100.0	0.0								
B_MR6_GMP76	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_MR6_GMP77	20.000	1	100.0	0.0								
B_MR6_GMP78	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP79	20.000	1	100.0	0.0								
B_MR6_GMP80	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMP81	20.000	1	100.0	0.0								
B_MR6_GMP82	20.000	1	100.0	0.0								
B_MR6_GMT1	0.400	1	100.0	0.0	0.038	0.024	0.010	0.006				
B_MR6_GMT2	20.000	1	100.0	0.0								
B_MR6_GMT3	20.000	1	100.0	0.0								
B_MR6_GMT7	20.000	1	100.0	0.0								
B_MR6_GMT8	0.400	1	100.0	0.0	0.001	0.001						
B_MR6_GMT9	20.000	1	100.0	0.0								
B_MR6_GMT13	20.000	1	100.0	0.0								
B_MR6_GMT14	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_MR6_GMT18	0.400	1	100.0	0.0	0.014	0.008	0.003	0.002				
B_MR6_GMT19	20.000	1	100.0	0.0								
B_MR6_GMT20	0.400	1	100.0	0.0	0.002	0.001						
B_MR6_GMT21	20.000	1	100.0	0.0								
B_MR6_GMT25	20.000	1	100.0	0.0								
B_MR6_GMT26	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMT27	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR6_GMT30	20.000	1	100.0	0.0								
B_MR6_GMT31	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMT35	20.000	1	100.0	0.0								
B_MR6_GMT36	0.400	1	100.0	0.0	0.018	0.011	0.005	0.003				
B_MR6_GMT37	20.000	1	100.0	0.0								
B_MR6_GMT38	20.000	1	100.0	0.0								
B_MR6_GMT44	0.400	1	100.0	0.0	0.004	0.003	0.001	0.001				
B_MR6_GMT45	0.400	1	100.0	0.0	0.018	0.011	0.004	0.003				
B_MR6_GMT47	20.000	1	100.0	0.0								
B_MR6_GMT48	20.000	1	100.0	0.0								
B_MR6_GMT52	20.000	1	100.0	0.0								
B_MR6_GMT53	0.400	1	100.0	0.0	0.022	0.014	0.006	0.003				
B_MR6_GMT54	20.000	1	100.0	0.0								
B_MR6_GMT55	20.000	1	100.0	0.0								
B_MR6_GMT58	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR6_GMT59	20.000	1	100.0	0.0								
B_MR6_GMT60	0.400	1	100.0	0.0	0.009	0.005	0.002	0.001				
B_MR6_GMT61	20.000	1	100.0	0.0								
B_MR6_GMT62	0.400	1	100.0	0.0	0.003	0.002						
B_MR6_GMT63	20.000	1	100.0	0.0								
B_MR6_GMT64	0.400	1	100.0	0.0	0.007	0.005	0.002	0.001				
B_MR6_GMT65	20.000	1	100.0	0.0								
B_MR6_GMT70	0.400	1	100.0	0.0	0.014	0.009	0.004	0.002				
B_MR6_GMT71	0.400	1	100.0	0.0	0.012	0.007	0.003	0.002				
B_MR6_GMT72	20.000	1	100.0	0.0								
B_MR6_GMT73	20.000	1	100.0	0.0								
B_MR6_GMT74	0.400	1	100.0	0.0	0.022	0.013	0.005	0.003				
B_MR6_GMT75	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMT76	20.000	1	100.0	0.0								
B_MR6_GMT77	20.000	1	100.0	0.0								
B_MR6_GMT80	0.400	1	100.0	0.0	0.040	0.025	0.010	0.006				
B_MR6_GMT81	20.000	1	100.0	0.0								
B_MR6_GMT82	0.400	1	100.0	0.0	0.002	0.001						
B_MR6_GMT83	20.000	1	100.0	0.0								
B_MR6_GMT84	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
B_MR6_GMT87	0.400	1	100.0	0.0	0.035	0.022	0.009	0.005				
B_MR6_GMT88	20.000	1	100.0	0.0								
B_MR6_GMT91	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR6_GMT92	20.000	1	100.0	0.0								
B_MR6_GMT96	0.400	1	100.0	0.0	0.006	0.004	0.002	0.001				
B_MR6_GMT97	20.000	1	100.0	0.0								
B_MR6_GMT98	20.000	1	100.0	0.0								
B_MR6_GMT99	20.000	1	100.0	0.0								
B_MR6_GMT102	0.400	1	100.0	0.0	0.015	0.009	0.004	0.002				
B_MR6_GMT103	20.000	1	100.0	0.0								
B_MR6_GMT109	0.400	1	100.0	0.0	0.002	0.001						
B_MR6_GMT110	0.400	1	100.0	0.0	0.023	0.014	0.006	0.004				
B_MR6_GMT111	20.000	1	100.0	0.0								
B_MR6_GMT112	20.000	1	100.0	0.0								
B_MR6_GMT113	20.000	1	100.0	0.0								
B_MR6_GMT116	0.400	1	100.0	0.0	0.021	0.013	0.005	0.003				
B_MR6_GMT117	20.000	1	100.0	0.0								
B_MR6_GMT123	0.400	1	100.0	0.0								
B_MR6_GMT124	20.000	1	100.0	0.0								
B_MR6_GMT125	20.000	1	100.0	0.0								
B_MR6_GMT126	0.400	1	100.0	0.0	0.013	0.008	0.003	0.002				
B_MR6_GMT127	20.000	1	100.0	0.0								
B_MR6_GMT128	20.000	1	100.0	0.0								
B_MR6_GMT130	20.000	1	100.0	0.0								
B_PLTD_TILAMUTA	6.300	2	100.0	0.0								
GH LEMITO	20.000	1	100.0	0.0								
GH MARISA	20.000	1	100.0	0.0								
GH MARISA1	20.000	1	100.0	0.0								
GH TILAMUTA	20.000	1	100.0	0.0								
GI MARISA	20.000	1	100.0	0.0								
LM1 V UJUNG	20.000	1	100.0	0.0								
LM3 V UJUNG	20.000	1	100.0	0.0								
LM4 V UJUNG	20.000	1	100.0	0.0								
LMT1 V UJUNG	20.000	1	100.0	0.0								
LMT2 V UJUNG	20.000	1	100.0	0.0								

Bus			Initial Voltage		Load							
					Constant kVA		Constant Z		Constant I		Generic	
ID	kV	Sub-sys	% Mag.	Ang.	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar
LO1 V UJUNG	20.000	1	100.0	0.0								
LO2 V UJUNG	20.000	1	100.0	0.0								
MR1 V UJUNG	20.000	1	100.0	0.0								
MR6 V UJUNG	20.000	1	100.0	0.0								
MR6 V UJUNG2	20.000	1	100.0	0.0								
Total Number of Buses: 1053					11.284	6.993	2.821	1.748	0.000	0.000	0.000	0.000

Generation Bus				Voltage		Generation			Mvar Limits	
ID	kV	Type	Sub-sys	% Mag.	Angle	MW	Mvar	% PF	Max	Min
B_GI_MARISA	150.000	Swing	1	100.0	0.0					
B_PLTD_TILAMUTA	6.300	Swing	2	100.0	0.0					
						0.000	0.000			

Line/Cable/Busway Input Data

ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)

Line/Cable/Busway ID	Library	Size	Length Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
INC LM3	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
INC_MR.6	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.2	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.3	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.4	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LM.5	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LMT.1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LMT.2	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
LO_1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
MR.1	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
MR.3	20OALN1	70	11000.0	0.0	1	75	0.505294	0.340600	
MR.4	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
MR.6	20NALS3	240	500.0	0.0	1	75	0.153408	0.098000	0.0000943
L_AG2_3		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_43		93.3	700.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_55		93.3	2000.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_58		93.3	600.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_62		93.3	700.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_65		75.6	1000.0	0.0	1	75	0.524588	0.382172	0.0000034
L_AG2_66		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_68		93.3	700.0	0.0	1	75	0.425209	0.376933	0.0000035
L_AG2_74		147.	500.0	0.0	1	75	0.269543	0.382172	0.0000036
L_AG2_77		93,3	400.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LM1_GM_1		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_3		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_4		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_5		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_6		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_7		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_8		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_9		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_10		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_12		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_13		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_16		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_17		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_18		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_19		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_20		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_21		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_22		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_23		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_29		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_30		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_31		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_32		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_33		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_35		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_37		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_38		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_39		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_40		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_41		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_42		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_43		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_45		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_46		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_47		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_48		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_49		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_50		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_55		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_56		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_57		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_61		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_62		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_63		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_67		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_68		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_69		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_73		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_74		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_75		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_76		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_77		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_78		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_79		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_80		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_81		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_83		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_93		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_95		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_96		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_97		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_98		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_99		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_100		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_102		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_110		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_111		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_112		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_113		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_114		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_115		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_116		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_124		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_125		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_126		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_127		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_128		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_129		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_130		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_133		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_134		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_135		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_136		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_137		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_138		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_139		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_140		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_143		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_144		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_150		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_151		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_152		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_153		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_154		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_160		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_161		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_162		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_163		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_164		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_166		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_168		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_169		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_172		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_174		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_175		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_176		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_177		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_178		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_179		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_181		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_183		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_185		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_187		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_189		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_190		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_191		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_192		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_194		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_196		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_197		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_198		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_203		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_204		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_205		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_206		147.	700.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_208		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_210		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_211		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_212		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_213		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_214		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_215		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_217		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_219		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_220		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_221		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_222		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_223		157.	1000.0	0.0	1	75	0.251600	0.359566	0.0000037
L_LM1_GM_224		157.	1000.0	0.0	1	75	0.251600	0.359566	0.0000037
L_LM1_GM_225		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_226		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_229		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_230		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_231		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_232		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_233		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_234		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_235		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_236		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_237		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_238		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_241		147.	500.0	0.0	1	75	0.269600	0.382254	0.0000036
L_LM1_GM_246		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_247		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_248		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_251		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_252		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_257		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_258		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_259		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_260		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_263		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_264		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_267		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_268		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_270		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_272		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_275		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_276		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_277		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_278		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_279		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_280		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_282		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_286		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_287		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_288		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_292		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_293		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_294		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_296		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_300		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_301		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_302		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_305		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_306		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_309		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_310		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_315		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_316		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LM1_GM_317		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_318		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_323		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_324		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_325		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_326		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_331		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_332		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_333		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_334		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_339		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_340		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_341		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_342		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_351		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_352		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_353		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_354		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_355		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_356		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_357		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_359		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_360		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_361		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_365		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_366		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_367		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_372		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_373		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_374		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_376		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_379		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_380		93,3	400.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_381		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LM1_GM_382		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_LMT1_GMT1		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)						
			Length						
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT1_GMT2		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT5		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT6		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT11		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT12		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT13		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT14		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT18		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT19		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT22		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT23		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT25		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT26		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT32		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT33		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT37		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT38		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT39		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT42		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT43		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT44		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT48		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT49		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT50		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT53		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT54		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT57		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT58		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT62		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT63		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT64		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT65		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT68		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT69		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT1_GMT70		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT71		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT75		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT76		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT77		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT80		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT81		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT82		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT83		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT88		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT89		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT90		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT91		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT94		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT95		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT99		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT100		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT101		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT102		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT105		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT106		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT109		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT110		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT116		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT117		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT118		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT121		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT122		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT123		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT124		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT125		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT126		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT130		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT131		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT132		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT135		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT1_GMT136		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT140		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT142		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT145		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT146		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT147		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT148		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT152		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT153		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT156		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT157		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT160		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT161		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT162		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT1_GMT163		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT1		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT2		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT4		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT6		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT7		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT10		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT11		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT14		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT15		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT16		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT17		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT18		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT20		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT23		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT26		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT27		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT31		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT34		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT35		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT2_GMT38		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT39		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT40		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT41		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT44		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT45		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT48		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT49		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT54		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT55		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT56		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT57		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT66		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT67		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT68		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT69		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT70		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT71		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT72		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT73		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT76		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT77		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT80		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT81		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT88		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT89		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT92		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT93		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT95		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT96		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT97		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT98		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT101		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT102		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT107		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT108		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LMT2_GMT109		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT110		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT111		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT116		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT117		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT118		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT119		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT120		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT121		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT122		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT123		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT126		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT127		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT128		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT129		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT134		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT135		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT136		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT137		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT139		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT144		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT145		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT146		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT147		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT154		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT155		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT156		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT157		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT158		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT159		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT163		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT164		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LMT2_GMT165		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_LY02_01-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_2-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_3-3		157.	500.0	0.0	1	75	0.251546	0.359489	0.0000037

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LY02_4-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_6-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_8-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_9-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_11-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_12-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_14-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_15-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_16-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_18-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_19-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_21-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_23-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_24-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_26-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_27-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_29-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_30-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_32-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_33-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_35-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_37-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_38-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_40-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_41-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_43-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_44-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_45-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_47-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_48-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_50-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_51-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_53-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_54-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_56-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_57-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_LY02_59-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_60-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_62-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_63-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_65-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_66-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_68-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_69-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_71-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_LY02_72-3		93.3	500.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR1_GMP_1		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_3		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_4		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_5		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_6		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_7		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_8		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_9		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_10		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_11		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_12		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_13		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_14		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_15		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_16		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_17		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_18		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_19		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_21		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_22		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_23		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_24		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_25		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_26		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_27		93,3	1000.0	0.0	1	75	0.425300	0.377014	0.0000035
L_MR1_GMP_28		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_MR1_GMP_29		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_30		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_31		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_32		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_34		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_35		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_36		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_37		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_38		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_39		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_41		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_43		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR1_GMP_45		75.6	1000.0	0.0	1	75	0.524700	0.382254	0.0000034
L_MR6_GMP1		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP2		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP4		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP5		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP6		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP7		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP9		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP10		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP12		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP13		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP16		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP17		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP19		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP20		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP21		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP25		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP26		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP29		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP32		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP33		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP35		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			Length				ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)		
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_MR6_GMP36		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP38		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP39		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP40		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMP42		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP43		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP44		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMP45		147.	2000.0	0.0	1	75	0.269543	0.382172	0.0000036
L_MR6_GMT1		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT2		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT5		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT6		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT9		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT12		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT13		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT16		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT17		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT19		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT22		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT23		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT24		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT29		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT30		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT31		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT34		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT35		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT37		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT38		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT39		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT40		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT43		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT44		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT45		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT46		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT48		93.3	300.0	0.0	1	75	0.425209	0.376933	0.0000035
L_MR6_GMT49		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034

Line/Cable/Busway			ohms or siemens/1000 m per Conductor (Cable) or per Phase (Line/Busway)						
			Length						
ID	Library	Size	Adj. (m)	% Tol.	#/Phase	T (°C)	R	X	Y
L_MR6_GMT50		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT52		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT54		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT57		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT58		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT59		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT61		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT65		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT66		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT67		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT69		75.6	400.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT70		75.6	300.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT74		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT75		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT76		75.6	700.0	0.0	1	75	0.524588	0.382172	0.0000034
L_MR6_GMT77		75.6	3000.0	0.0	1	75	0.524588	0.382172	0.0000034

Line / Cable / Busway resistances are listed at the specified temperatures.

2-Winding Transformer Input Data

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
GI.MARISA	3-Phase	30.000	150.000	20.000	12.50	45.00	0	0	0	0	8.000	12.5000	Dyn	0.000
G_LM1_GM_50	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_51	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_52	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_53	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_54	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_55	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_56	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_57	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_58	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_59	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_60	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_61	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_62	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_63	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_64	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_65	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_66	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_67	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_68	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_69	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_70	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_71	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_72	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_73	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_74	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_75	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_76	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_77	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_78	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_79	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_80	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_81	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_82	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_83	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_84	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_85	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_86	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM1_GM_87	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_88	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM1_GM_89	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_155	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_156	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_157	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_158	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_159	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_160	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_161	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_162	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_163	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_164	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_165	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_166	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_167	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_168	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_169	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_170	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_171	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_172	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_173	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_174	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_175	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_176	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_177	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMC_178	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_106	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_107	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_108	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_109	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_110	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_111	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_112	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_113	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_114	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_115	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_116	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_117	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMI_118	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GMI_119	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_120	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_121	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_122	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_123	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_124	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_125	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_126	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_127	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_128	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_129	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_130	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_131	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_132	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_133	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_134	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_135	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_136	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_137	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_138	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_139	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_140	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_141	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_142	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_143	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_144	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_145	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_146	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_147	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_148	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_149	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_150	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_151	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_152	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_153	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GMK_154	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_179	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_180	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_181	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_182	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GML_183	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_184	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_185	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_186	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_187	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_188	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_189	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_190	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_191	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_192	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_193	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_194	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_195	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_196	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_197	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_198	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_199	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_200	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_201	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_202	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_203	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_204	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_205	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_206	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_207	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_208	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_209	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_210	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_211	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_212	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_213	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_214	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_215	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_216	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_217	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_218	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_219	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_220	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_221	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_222	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GML_223	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_224	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_225	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_226	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_227	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_228	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_229	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_230	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_231	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_232	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_233	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_234	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_235	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_236	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_237	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_238	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_239	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_240	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_241	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_242	3-Phase	0.015	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_243	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_244	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_245	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_246	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_247	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_248	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_249	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_250	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_251	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_252	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_253	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_254	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_255	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_256	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_257	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_258	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_259	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_260	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_261	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_262	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LM3_GML_263	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_264	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_265	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_266	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM3_GML_267	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_90	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_91	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_92	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_93	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_94	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_95	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_96	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_97	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_98	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_99	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_100	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_101	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_102	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_103	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_104	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LM4_GM_105	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT031	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT032	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT033	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT034	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT035	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT036	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT038	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT039	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT040	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT041	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT042	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT043	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT044	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT045	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT046	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT047	3-Phase	0.200	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT048	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT049	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT050	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LMT1_GMT051	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT052	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT053	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT054	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT055	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT056	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT057	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT058	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT059	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT060	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT061	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT062	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT063	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT064	3-Phase	0.250	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT065	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT066	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT067	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT068	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT069	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT070	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT071	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT072	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT073	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT074	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT075	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT076	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT077	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT079	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT080	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT081	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT123	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT1_GMT132	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT081	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT082	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT083	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT084	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT085	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT086	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT087	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT088	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LMT2_GMT089	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT090	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT091	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT092	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT093	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT094	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT095	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT096	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT097	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT098	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT099	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT100	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT101	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT102	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT103	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT104	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT105	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT106	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT107	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT108	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT109	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT110	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT111	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT112	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT113	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT114	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT116	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT117	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT118	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT119	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT120	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT121	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT122	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT123	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT124	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT125	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT126	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT127	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT128	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT129	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_LMT2_GMT130	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT131	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_LMT2_GMT135	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_1	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_2_	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_3	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_4	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_5	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_6	3-Phase	0.200	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_7	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_8	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_9	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_10	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_11	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_12	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_13	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_14	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_15	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_16	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_17	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_18	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_19	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_20_	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_21	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_22	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_23	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_24	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_25	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_26	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_27	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_28	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_29	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_30	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_31	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_32	3-Phase	0.160	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_33_	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_34	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_35	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_36	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_37	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_MR1_GMP_38	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR1_GMP_39	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM02	3-Phase	3.000	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM03	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM04	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM05	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM06	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM07	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM08	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM09	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM10	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM11	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM12	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM13	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM14	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM15	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM16	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM17	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM18	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM19	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM20	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM21	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM22	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM23	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM24	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM25	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM26	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM27	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM28	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM29	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM30	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM31	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM32	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM33	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM34	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM35	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM36	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM37	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM38	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM39	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_MR4_GM40	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM41	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM42	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM43	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM44	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM45	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM46	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM47	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM48	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GM49	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR4_GMP01	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP040	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP041	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP042	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP043	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP044	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP045	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP046	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP047	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP048	3-Phase	0.200	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP049	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP050	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP051	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP052	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP053	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP054	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP055	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP056	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP057	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP058	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP059	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP060	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMP061	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT001	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT002	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT003	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT004	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT005	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT006	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT007	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Transformer		Rating					Z Variation			% Tap Setting		Adjusted	Phase Shift	
ID	Phase	MVA	Prim. kV	Sec. kV	% Z1	X1/R1	+ 5%	- 5%	% Tol.	Prim.	Sec.	% Z	Type	Angle
G_MR6_GMT008	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT009	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT010	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT011	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT012	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT013	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT015	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT016	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT017	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT018	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT020	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT021	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT022	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT023	3-Phase	0.100	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT024	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT025	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT026	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT027	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT028	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT029	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT030	3-Phase	0.025	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000
G_MR6_GMT134	3-Phase	0.050	20.000	0.400	4.00	1.50	0	0	0	0	0	4.0000	Dyn	0.000

Branch Connections

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
GI.MARISA	2W XFMR	B_GI_MARISA	GI MARISA	1.00	44.99	45.00	
G_LM1_GM_50	2W XFMR	Bus_LM1_3	Bus_LM1_2	2218.80	3328.20	4000.00	
G_LM1_GM_51	2W XFMR	Bus_LM1_7	Bus_LM1_6	8875.20	13312.80	16000.00	
G_LM1_GM_52	2W XFMR	Bus_LM1_9	Bus_LM1_8	2218.80	3328.20	4000.00	
G_LM1_GM_53	2W XFMR	Bus_LM1_11	Bus_LM1_10	2218.80	3328.20	4000.00	
G_LM1_GM_54	2W XFMR	Bus_LM1_13	Bus_LM1_12	4437.60	6656.40	8000.00	
G_LM1_GM_55	2W XFMR	Bus_LM1_15	Bus_LM1_14	2218.80	3328.20	4000.00	
G_LM1_GM_56	2W XFMR	Bus_LM1_17	Bus_LM1_16	4437.60	6656.40	8000.00	
G_LM1_GM_57	2W XFMR	Bus_LM1_19	Bus_LM1_18	4437.60	6656.40	8000.00	
G_LM1_GM_58	2W XFMR	Bus_LM1_21	Bus_LM1_20	8875.20	13312.80	16000.00	
G_LM1_GM_59	2W XFMR	Bus_LM1_25	Bus_LM1_26	4437.60	6656.40	8000.00	
G_LM1_GM_60	2W XFMR	Bus_LM1_31	Bus_LM1_32	4437.60	6656.40	8000.00	
G_LM1_GM_61	2W XFMR	Bus_LM1_37	Bus_LM1_38	4437.60	6656.40	8000.00	
G_LM1_GM_62	2W XFMR	Bus_LM1_39	Bus_LM1_40	4437.60	6656.40	8000.00	
G_LM1_GM_63	2W XFMR	Bus_LM1_35	Bus_LM1_36	4437.60	6656.40	8000.00	
G_LM1_GM_64	2W XFMR	Bus_LM1_33	Bus_LM1_34	4437.60	6656.40	8000.00	
G_LM1_GM_65	2W XFMR	Bus_LM1_42	Bus_LM1_43	8875.20	13312.80	16000.00	
G_LM1_GM_66	2W XFMR	Bus_LM1_44	Bus_LM1_45	1386.75	2080.13	2500.00	
G_LM1_GM_67	2W XFMR	Bus_LM1_46	Bus_LM1_47	4437.60	6656.40	8000.00	
G_LM1_GM_68	2W XFMR	Bus_LM1_59	Bus_LM1_58	8875.20	13312.80	16000.00	
G_LM1_GM_69	2W XFMR	Bus_LM1_66	Bus_LM1_67	2218.80	3328.20	4000.00	
G_LM1_GM_70	2W XFMR	Bus_LM1_65	Bus_LM1_60	8875.20	13312.80	16000.00	
G_LM1_GM_71	2W XFMR	Bus_LM1_64	Bus_LM1_61	4437.60	6656.40	8000.00	
G_LM1_GM_72	2W XFMR	Bus_LM1_63	Bus_LM1_62	4437.60	6656.40	8000.00	
G_LM1_GM_73	2W XFMR	Bus_LM1_70	Bus_LM1_71	2218.80	3328.20	4000.00	
G_LM1_GM_74	2W XFMR	Bus_LM1_74	Bus_LM1_75	4437.60	6656.40	8000.00	
G_LM1_GM_75	2W XFMR	Bus_LM1_76	Bus_LM1_77	2218.80	3328.20	4000.00	
G_LM1_GM_76	2W XFMR	Bus_LM1_78	Bus_LM1_79	4437.60	6656.40	8000.00	
G_LM1_GM_77	2W XFMR	Bus_LM1_80	Bus_LM1_81	2218.80	3328.20	4000.00	
G_LM1_GM_78	2W XFMR	Bus_LM1_82	Bus_LM1_83	2218.80	3328.20	4000.00	
G_LM1_GM_79	2W XFMR	Bus_LM1_84	Bus_LM1_85	2218.80	3328.20	4000.00	
G_LM1_GM_80	2W XFMR	Bus_LM1_86	Bus_LM1_87	4437.60	6656.40	8000.00	
G_LM1_GM_81	2W XFMR	Bus_LM1_91	Bus_LM1_92	4437.60	6656.40	8000.00	
G_LM1_GM_82	2W XFMR	Bus_LM1_93	Bus_LM1_94	4437.60	6656.40	8000.00	
G_LM1_GM_83	2W XFMR	Bus_LM1_97	Bus_LM1_98	4437.60	6656.40	8000.00	
G_LM1_GM_84	2W XFMR	Bus_LM1_95	Bus_LM1_96	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM1_GM_85	2W XFMR	Bus_LM1_99	Bus_LM1_100	4437.60	6656.40	8000.00	
G_LM1_GM_86	2W XFMR	Bus_LM1_101	Bus_LM1_102	4437.60	6656.40	8000.00	
G_LM1_GM_87	2W XFMR	Bus_LM1_115	Bus_LM1_116	8875.20	13312.80	16000.00	
G_LM1_GM_88	2W XFMR	Bus_LM1_114	Bus_LM1_111	4437.60	6656.40	8000.00	
G_LM1_GM_89	2W XFMR	Bus_LM1_113	Bus_LM1_112	4437.60	6656.40	8000.00	
G_LM3_GMC_155	2W XFMR	Bus_LM3_140	Bus_LM3_141	8875.20	13312.80	16000.00	
G_LM3_GMC_156	2W XFMR	Bus_LM3_144	Bus_LM3_145	4437.60	6656.40	8000.00	
G_LM3_GMC_157	2W XFMR	Bus_LM3_146	Bus_LM3_147	2218.80	3328.20	4000.00	
G_LM3_GMC_158	2W XFMR	Bus_LM1_189	Bus_LM3_153	8875.20	13312.80	16000.00	
G_LM3_GMC_159	2W XFMR	Bus_LM1_190	Bus_LM3_159	14792.01	22188.01	26666.67	
G_LM3_GMC_160	2W XFMR	Bus_LM3_170	Bus_LM3_171	4437.60	6656.40	8000.00	
G_LM3_GMC_161	2W XFMR	Bus_LM3_160	Bus_LM3_161	4437.60	6656.40	8000.00	
G_LM3_GMC_162	2W XFMR	Bus_LM3_162	Bus_LM3_163	4437.60	6656.40	8000.00	
G_LM3_GMC_163	2W XFMR	Bus_LM3_164	Bus_LM3_165	4437.60	6656.40	8000.00	
G_LM3_GMC_164	2W XFMR	Bus_LM3_166	Bus_LM3_167	4437.60	6656.40	8000.00	
G_LM3_GMC_165	2W XFMR	Bus_LM3_156	Bus_LM3_157	4437.60	6656.40	8000.00	
G_LM3_GMC_166	2W XFMR	Bus_LM1_193	Bus_LM3_173	4437.60	6656.40	8000.00	
G_LM3_GMC_167	2W XFMR	Bus_LM1_195	Bus_LM3_175	8875.20	13312.80	16000.00	
G_LM3_GMC_168	2W XFMR	Bus_LM1_196	Bus_LM3_176	4437.60	6656.40	8000.00	
G_LM3_GMC_169	2W XFMR	Bus_LM1_197	Bus_LM3_177	2218.80	3328.20	4000.00	
G_LM3_GMC_170	2W XFMR	Bus_LM1_198	Bus_LM3_178	2218.80	3328.20	4000.00	
G_LM3_GMC_171	2W XFMR	Bus_LM1_200	Bus_LM3_180	4437.60	6656.40	8000.00	
G_LM3_GMC_172	2W XFMR	Bus_LM1_202	Bus_LM3_182	2218.80	3328.20	4000.00	
G_LM3_GMC_173	2W XFMR	Bus_LM1_203	Bus_LM3_183	4437.60	6656.40	8000.00	
G_LM3_GMC_174	2W XFMR	Bus_LM1_204	Bus_LM3_184	4437.60	6656.40	8000.00	
G_LM3_GMC_175	2W XFMR	Bus_LM1_212	Bus_LM3_194	4437.60	6656.40	8000.00	
G_LM3_GMC_176	2W XFMR	Bus_LM1_211	Bus_LM3_191	4437.60	6656.40	8000.00	
G_LM3_GMC_177	2W XFMR	Bus_LM1_210	Bus_LM3_192	2218.80	3328.20	4000.00	
G_LM3_GMC_178	2W XFMR	Bus_LM1_209	Bus_LM3_193	2218.80	3328.20	4000.00	
G_LM3_GMI_106	2W XFMR	Bus_LM3_188	Bus_LM3_189	4437.60	6656.40	8000.00	
G_LM3_GMI_107	2W XFMR	Bus_LM3_3	Bus_LM3_4	4437.60	6656.40	8000.00	
G_LM3_GMI_108	2W XFMR	Bus_LM3_5	Bus_LM3_6	4437.60	6656.40	8000.00	
G_LM3_GMI_109	2W XFMR	Bus_LM3_7	Bus_LM3_8	4437.60	6656.40	8000.00	
G_LM3_GMI_110	2W XFMR	Bus_LM3_9	Bus_LM3_10	4437.60	6656.40	8000.00	
G_LM3_GMI_111	2W XFMR	Bus_LM3_11	Bus_LM3_12	4437.60	6656.40	8000.00	
G_LM3_GMI_112	2W XFMR	Bus_LM3_13	Bus_LM3_14	8875.20	13312.80	16000.00	
G_LM3_GMI_113	2W XFMR	Bus_LM3_37	Bus_LM3_38	4437.60	6656.40	8000.00	
G_LM3_GMI_114	2W XFMR	Bus_LM3_36	Bus_LM3_27	4437.60	6656.40	8000.00	
G_LM3_GMI_115	2W XFMR	Bus_LM3_35	Bus_LM3_28	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GMI_116	2W XFMR	Bus_LM3_34	Bus_LM3_29	4437.60	6656.40	8000.00	
G_LM3_GMI_117	2W XFMR	Bus_LM3_33	Bus_LM3_30	4437.60	6656.40	8000.00	
G_LM3_GMI_118	2W XFMR	Bus_LM3_32	Bus_LM3_31	8875.20	13312.80	16000.00	
G_LM3_GMI_119	2W XFMR	Bus_LM3_41	Bus_LM3_40	4437.60	6656.40	8000.00	
G_LM3_GMK_120	2W XFMR	Bus_LM3_63	Bus_LM3_62	8875.20	13312.80	16000.00	
G_LM3_GMK_121	2W XFMR	Bus_LM3_64	Bus_LM3_61	4437.60	6656.40	8000.00	
G_LM3_GMK_122	2W XFMR	Bus_LM3_65	Bus_LM3_60	8875.20	13312.80	16000.00	
G_LM3_GMK_123	2W XFMR	Bus_LM3_66	Bus_LM3_59	4437.60	6656.40	8000.00	
G_LM3_GMK_124	2W XFMR	Bus_LM3_67	Bus_LM3_58	2218.80	3328.20	4000.00	
G_LM3_GMK_125	2W XFMR	Bus_LM3_68	Bus_LM3_57	4437.60	6656.40	8000.00	
G_LM3_GMK_126	2W XFMR	Bus_LM3_69	Bus_LM3_56	2218.80	3328.20	4000.00	
G_LM3_GMK_127	2W XFMR	Bus_LM3_76	Bus_LM3_75	4437.60	6656.40	8000.00	
G_LM3_GMK_128	2W XFMR	Bus_LM3_77	Bus_LM3_74	2218.80	3328.20	4000.00	
G_LM3_GMK_129	2W XFMR	Bus_LM3_80	Bus_LM3_79	2218.80	3328.20	4000.00	
G_LM3_GMK_130	2W XFMR	Bus_LM3_81	Bus_LM3_78	4437.60	6656.40	8000.00	
G_LM3_GMK_131	2W XFMR	Bus_LM3_84	Bus_LM3_83	2218.80	3328.20	4000.00	
G_LM3_GMK_132	2W XFMR	Bus_LM3_85	Bus_LM3_82	2218.80	3328.20	4000.00	
G_LM3_GMK_133	2W XFMR	Bus_LM3_88	Bus_LM3_87	8875.20	13312.80	16000.00	
G_LM3_GMK_134	2W XFMR	Bus_LM3_89	Bus_LM3_86	4437.60	6656.40	8000.00	
G_LM3_GMK_135	2W XFMR	Bus_LM3_96	Bus_LM3_95	8875.20	13312.80	16000.00	
G_LM3_GMK_136	2W XFMR	Bus_LM3_97	Bus_LM3_94	2218.80	3328.20	4000.00	
G_LM3_GMK_137	2W XFMR	Bus_LM3_117	Bus_LM3_108	8875.20	13312.80	16000.00	
G_LM3_GMK_138	2W XFMR	Bus_LM3_116	Bus_LM3_109	2218.80	3328.20	4000.00	
G_LM3_GMK_139	2W XFMR	Bus_LM3_115	Bus_LM3_110	2218.80	3328.20	4000.00	
G_LM3_GMK_140	2W XFMR	Bus_LM3_137	Bus_LM3_128	8875.20	13312.80	16000.00	
G_LM3_GMK_141	2W XFMR	Bus_LM3_136	Bus_LM3_129	2218.80	3328.20	4000.00	
G_LM3_GMK_142	2W XFMR	Bus_LM3_135	Bus_LM3_130	8875.20	13312.80	16000.00	
G_LM3_GMK_143	2W XFMR	Bus_LM3_134	Bus_LM3_131	4437.60	6656.40	8000.00	
G_LM3_GMK_144	2W XFMR	Bus_LM3_133	Bus_LM3_132	4437.60	6656.40	8000.00	
G_LM3_GMK_145	2W XFMR	Bus_LM3_114	Bus_LM3_111	8875.20	13312.80	16000.00	
G_LM3_GMK_146	2W XFMR	Bus_LM3_113	Bus_LM3_112	2218.80	3328.20	4000.00	
G_LM3_GMK_147	2W XFMR	Bus_LM1_215	Bus_LM3_196	8875.20	13312.80	16000.00	
G_LM3_GMK_148	2W XFMR	Bus_LM1_217	Bus_LM3_198	2218.80	3328.20	4000.00	
G_LM3_GMK_149	2W XFMR	Bus_LM1_218	Bus_LM3_199	4437.60	6656.40	8000.00	
G_LM3_GMK_150	2W XFMR	Bus_LM1_219	Bus_LM3_200	4437.60	6656.40	8000.00	
G_LM3_GMK_151	2W XFMR	Bus_LM1_220	Bus_LM3_201	4437.60	6656.40	8000.00	
G_LM3_GMK_152	2W XFMR	Bus_LM1_221	Bus_LM3_202	4437.60	6656.40	8000.00	
G_LM3_GMK_153	2W XFMR	Bus_LM1_222	Bus_LM3_203	4437.60	6656.40	8000.00	
G_LM3_GMK_154	2W XFMR	Bus_LM3_116	Bus_LM3_362	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GML_179	2W XFMR	Bus_LM1_224	Bus_LM3_205	2218.80	3328.20	4000.00	
G_LM3_GML_180	2W XFMR	Bus_LM1_226	Bus_LM3_207	2218.80	3328.20	4000.00	
G_LM3_GML_181	2W XFMR	Bus_LM1_227	Bus_LM3_208	4437.60	6656.40	8000.00	
G_LM3_GML_182	2W XFMR	Bus_LM1_228	Bus_LM3_209	4437.60	6656.40	8000.00	
G_LM3_GML_183	2W XFMR	Bus_LM1_229	Bus_LM3_210	4437.60	6656.40	8000.00	
G_LM3_GML_184	2W XFMR	Bus_LM1_230	Bus_LM3_211	2218.80	3328.20	4000.00	
G_LM3_GML_185	2W XFMR	Bus_LM1_231	Bus_LM3_212	2218.80	3328.20	4000.00	
G_LM3_GML_186	2W XFMR	Bus_LM1_232	Bus_LM3_213	8875.20	13312.80	16000.00	
G_LM3_GML_187	2W XFMR	Bus_LM1_233	Bus_LM3_214	4437.60	6656.40	8000.00	
G_LM3_GML_188	2W XFMR	Bus_LM1_237	Bus_LM3_218	4437.60	6656.40	8000.00	
G_LM3_GML_189	2W XFMR	Bus_LM1_236	Bus_LM3_217	4437.60	6656.40	8000.00	
G_LM3_GML_190	2W XFMR	Bus_LM1_239	Bus_LM3_220	4437.60	6656.40	8000.00	
G_LM3_GML_191	2W XFMR	Bus_LM1_238	Bus_LM3_219	4437.60	6656.40	8000.00	
G_LM3_GML_192	2W XFMR	Bus_LM1_241	Bus_LM3_222	4437.60	6656.40	8000.00	
G_LM3_GML_193	2W XFMR	Bus_LM1_240	Bus_LM3_221	4437.60	6656.40	8000.00	
G_LM3_GML_194	2W XFMR	Bus_LM1_243	Bus_LM3_224	8875.20	13312.80	16000.00	
G_LM3_GML_195	2W XFMR	Bus_LM1_242	Bus_LM3_223	2218.80	3328.20	4000.00	
G_LM3_GML_196	2W XFMR	Bus_LM1_245	Bus_LM3_226	1386.75	2080.13	2500.00	
G_LM3_GML_197	2W XFMR	Bus_LM1_244	Bus_LM3_225	2218.80	3328.20	4000.00	
G_LM3_GML_198	2W XFMR	Bus_LM1_249	Bus_LM3_230	2218.80	3328.20	4000.00	
G_LM3_GML_199	2W XFMR	Bus_LM1_251	Bus_LM3_232	4437.60	6656.40	8000.00	
G_LM3_GML_200	2W XFMR	Bus_LM1_253	Bus_LM3_234	4437.60	6656.40	8000.00	
G_LM3_GML_201	2W XFMR	Bus_LM1_254	Bus_LM3_235	4437.60	6656.40	8000.00	
G_LM3_GML_202	2W XFMR	Bus_LM1_255	Bus_LM3_236	4437.60	6656.40	8000.00	
G_LM3_GML_203	2W XFMR	Bus_LM1_259	Bus_LM3_240	4437.60	6656.40	8000.00	
G_LM3_GML_204	2W XFMR	Bus_LM1_258	Bus_LM3_239	2218.80	3328.20	4000.00	
G_LM3_GML_205	2W XFMR	Bus_LM1_267	Bus_LM3_248	2218.80	3328.20	4000.00	
G_LM3_GML_206	2W XFMR	Bus_LM1_266	Bus_LM3_245	8875.20	13312.80	16000.00	
G_LM3_GML_207	2W XFMR	Bus_LM1_265	Bus_LM3_246	4437.60	6656.40	8000.00	
G_LM3_GML_208	2W XFMR	Bus_LM1_264	Bus_LM3_247	8875.20	13312.80	16000.00	
G_LM3_GML_209	2W XFMR	Bus_LM1_270	Bus_LM3_251	4437.60	6656.40	8000.00	
G_LM3_GML_210	2W XFMR	Bus_LM1_271	Bus_LM3_252	2218.80	3328.20	4000.00	
G_LM3_GML_211	2W XFMR	Bus_LM1_275	Bus_LM3_256	2218.80	3328.20	4000.00	
G_LM3_GML_212	2W XFMR	Bus_LM1_274	Bus_LM3_255	2218.80	3328.20	4000.00	
G_LM3_GML_213	2W XFMR	Bus_LM1_277	Bus_LM3_258	4437.60	6656.40	8000.00	
G_LM3_GML_214	2W XFMR	Bus_LM1_282	Bus_LM3_261	4437.60	6656.40	8000.00	
G_LM3_GML_215	2W XFMR	Bus_LM1_281	Bus_LM3_262	4437.60	6656.40	8000.00	
G_LM3_GML_216	2W XFMR	Bus_LM1_284	Bus_LM3_263	4437.60	6656.40	8000.00	
G_LM3_GML_217	2W XFMR	Bus_LM1_283	Bus_LM3_264	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GML_218	2W XFMR	Bus_LM1_286	Bus_LM3_265	4437.60	6656.40	8000.00	
G_LM3_GML_219	2W XFMR	Bus_LM1_285	Bus_LM3_266	4437.60	6656.40	8000.00	
G_LM3_GML_220	2W XFMR	Bus_LM1_288	Bus_LM3_268	4437.60	6656.40	8000.00	
G_LM3_GML_221	2W XFMR	Bus_LM1_294	Bus_LM3_274	8875.20	13312.80	16000.00	
G_LM3_GML_222	2W XFMR	Bus_LM1_293	Bus_LM3_272	8875.20	13312.80	16000.00	
G_LM3_GML_223	2W XFMR	Bus_LM1_292	Bus_LM3_273	2218.80	3328.20	4000.00	
G_LM3_GML_224	2W XFMR	Bus_LM1_300	Bus_LM3_280	4437.60	6656.40	8000.00	
G_LM3_GML_225	2W XFMR	Bus_LM1_299	Bus_LM3_278	4437.60	6656.40	8000.00	
G_LM3_GML_226	2W XFMR	Bus_LM1_298	Bus_LM3_279	8875.20	13312.80	16000.00	
G_LM3_GML_227	2W XFMR	Bus_LM1_306	Bus_LM3_286	2218.80	3328.20	4000.00	
G_LM3_GML_228	2W XFMR	Bus_LM1_305	Bus_LM3_284	4437.60	6656.40	8000.00	
G_LM3_GML_229	2W XFMR	Bus_LM1_304	Bus_LM3_285	4437.60	6656.40	8000.00	
G_LM3_GML_230	2W XFMR	Bus_LM1_309	Bus_LM3_288	4437.60	6656.40	8000.00	
G_LM3_GML_231	2W XFMR	Bus_LM1_313	Bus_LM3_292	4437.60	6656.40	8000.00	
G_LM3_GML_232	2W XFMR	Bus_LM1_312	Bus_LM3_291	4437.60	6656.40	8000.00	
G_LM3_GML_233	2W XFMR	Bus_LM1_321	Bus_LM3_297	14792.01	22188.01	26666.67	
G_LM3_GML_234	2W XFMR	Bus_LM1_320	Bus_LM3_298	14792.01	22188.01	26666.67	
G_LM3_GML_235	2W XFMR	Bus_LM1_319	Bus_LM3_299	2218.80	3328.20	4000.00	
G_LM3_GML_236	2W XFMR	Bus_LM1_318	Bus_LM3_300	2218.80	3328.20	4000.00	
G_LM3_GML_237	2W XFMR	Bus_LM1_330	Bus_LM3_305	4437.60	6656.40	8000.00	
G_LM3_GML_238	2W XFMR	Bus_LM1_329	Bus_LM3_306	4437.60	6656.40	8000.00	
G_LM3_GML_239	2W XFMR	Bus_LM1_328	Bus_LM3_307	8875.20	13312.80	16000.00	
G_LM3_GML_240	2W XFMR	Bus_LM1_327	Bus_LM3_308	4437.60	6656.40	8000.00	
G_LM3_GML_241	2W XFMR	Bus_LM1_338	Bus_LM3_313	4437.60	6656.40	8000.00	
G_LM3_GML_242	2W XFMR	Bus_LM1_337	Bus_LM3_314	14792.01	22188.01	26666.67	
G_LM3_GML_243	2W XFMR	Bus_LM1_336	Bus_LM3_315	4437.60	6656.40	8000.00	
G_LM3_GML_244	2W XFMR	Bus_LM1_335	Bus_LM3_316	4437.60	6656.40	8000.00	
G_LM3_GML_245	2W XFMR	Bus_LM1_343	Bus_LM3_322	4437.60	6656.40	8000.00	
G_LM3_GML_246	2W XFMR	Bus_LM1_344	Bus_LM3_321	2218.80	3328.20	4000.00	
G_LM3_GML_247	2W XFMR	Bus_LM1_346	Bus_LM3_324	2218.80	3328.20	4000.00	
G_LM3_GML_248	2W XFMR	Bus_LM1_358	Bus_LM3_331	8875.20	13312.80	16000.00	
G_LM3_GML_249	2W XFMR	Bus_LM1_357	Bus_LM3_332	4437.60	6656.40	8000.00	
G_LM3_GML_250	2W XFMR	Bus_LM1_356	Bus_LM3_333	4437.60	6656.40	8000.00	
G_LM3_GML_251	2W XFMR	Bus_LM1_355	Bus_LM3_334	4437.60	6656.40	8000.00	
G_LM3_GML_252	2W XFMR	Bus_LM1_354	Bus_LM3_335	4437.60	6656.40	8000.00	
G_LM3_GML_253	2W XFMR	Bus_LM1_353	Bus_LM3_336	4437.60	6656.40	8000.00	
G_LM3_GML_254	2W XFMR	Bus_LM1_361	Bus_LM3_338	4437.60	6656.40	8000.00	
G_LM3_GML_255	2W XFMR	Bus_LM1_362	Bus_LM3_339	2218.80	3328.20	4000.00	
G_LM3_GML_256	2W XFMR	Bus_LM1_368	Bus_LM3_343	8875.20	13312.80	16000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LM3_GML_257	2W XFMR	Bus_LM1_367	Bus_LM3_344	4437.60	6656.40	8000.00	
G_LM3_GML_258	2W XFMR	Bus_LM1_366	Bus_LM3_345	2218.80	3328.20	4000.00	
G_LM3_GML_259	2W XFMR	Bus_LM1_377	Bus_LM3_350	8875.20	13312.80	16000.00	
G_LM3_GML_260	2W XFMR	Bus_LM1_376	Bus_LM3_351	4437.60	6656.40	8000.00	
G_LM3_GML_261	2W XFMR	Bus_LM1_375	Bus_LM3_352	4437.60	6656.40	8000.00	
G_LM3_GML_262	2W XFMR	Bus_LM1_345	Bus_LM3_323	4437.60	6656.40	8000.00	
G_LM3_GML_263	2W XFMR	Bus_LM1_380	Bus_LM3_354	2218.80	3328.20	4000.00	
G_LM3_GML_264	2W XFMR	Bus_LM1_384	Bus_LM3_357	4437.60	6656.40	8000.00	
G_LM3_GML_265	2W XFMR	Bus_LM1_383	Bus_LM3_358	4437.60	6656.40	8000.00	
G_LM3_GML_266	2W XFMR	Bus_LM1_386	Bus_LM3_359	4437.60	6656.40	8000.00	
G_LM3_GML_267	2W XFMR	Bus_LM1_385	Bus_LM3_360	4437.60	6656.40	8000.00	
G_LM4_GM_90	2W XFMR	Bus_LM1_125	Bus_LM1_124	1386.75	2080.13	2500.00	
G_LM4_GM_91	2W XFMR	Bus_LM1_126	Bus_LM1_123	2218.80	3328.20	4000.00	
G_LM4_GM_92	2W XFMR	Bus_LM1_127	Bus_LM1_128	4437.60	6656.40	8000.00	
G_LM4_GM_93	2W XFMR	Bus_LM1_137	Bus_LM1_136	4437.60	6656.40	8000.00	
G_LM4_GM_94	2W XFMR	Bus_LM1_138	Bus_LM1_135	2218.80	3328.20	4000.00	
G_LM4_GM_95	2W XFMR	Bus_LM1_139	Bus_LM1_140	2218.80	3328.20	4000.00	
G_LM4_GM_96	2W XFMR	Bus_LM1_151	Bus_LM1_152	4437.60	6656.40	8000.00	
G_LM4_GM_97	2W XFMR	Bus_LM1_150	Bus_LM1_147	2218.80	3328.20	4000.00	
G_LM4_GM_98	2W XFMR	Bus_LM1_149	Bus_LM1_148	2218.80	3328.20	4000.00	
G_LM4_GM_99	2W XFMR	Bus_LM1_157	Bus_LM1_158	4437.60	6656.40	8000.00	
G_LM4_GM_100	2W XFMR	Bus_LM1_156	Bus_LM1_153	4437.60	6656.40	8000.00	
G_LM4_GM_101	2W XFMR	Bus_LM1_155	Bus_LM1_154	1386.75	2080.13	2500.00	
G_LM4_GM_102	2W XFMR	Bus_LM1_163	Bus_LM1_164	2218.80	3328.20	4000.00	
G_LM4_GM_103	2W XFMR	Bus_LM1_162	Bus_LM1_159	4437.60	6656.40	8000.00	
G_LM4_GM_104	2W XFMR	Bus_LM1_161	Bus_LM1_160	4437.60	6656.40	8000.00	
G_LM4_GM_105	2W XFMR	Bus_LM1_167	Bus_LM1_168	2218.80	3328.20	4000.00	
G_LMT1_GMT031	2W XFMR	B_LMT1_GMT254	B_LMT1_GMT253	8875.20	13312.80	16000.00	
G_LMT1_GMT032	2W XFMR	B_LMT1_GMT251	B_LMT1_GMT250	8875.20	13312.80	16000.00	
G_LMT1_GMT033	2W XFMR	B_LMT1_GMT244	B_LMT1_GMT243	4437.60	6656.40	8000.00	
G_LMT1_GMT034	2W XFMR	B_LMT1_GMT245	B_LMT1_GMT246	4437.60	6656.40	8000.00	
G_LMT1_GMT035	2W XFMR	B_LMT1_GMT237	B_LMT1_GMT236	4437.60	6656.40	8000.00	
G_LMT1_GMT036	2W XFMR	B_LMT1_GMT238	B_LMT1_GMT235	2218.80	3328.20	4000.00	
G_LMT1_GMT038	2W XFMR	B_LMT1_GMT227	B_LMT1_GMT226	2218.80	3328.20	4000.00	
G_LMT1_GMT039	2W XFMR	B_LMT1_GMT224	B_LMT1_GMT223	4437.60	6656.40	8000.00	
G_LMT1_GMT040	2W XFMR	B_LMT1_GMT219	B_LMT1_GMT218	2218.80	3328.20	4000.00	
G_LMT1_GMT041	2W XFMR	B_LMT1_GMT215	B_LMT1_GMT213	2218.80	3328.20	4000.00	
G_LMT1_GMT042	2W XFMR	B_LMT1_GMT201	B_LMT1_GMT200	2218.80	3328.20	4000.00	
G_LMT1_GMT043	2W XFMR	B_LMT1_GMT202	B_LMT1_GMT203	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LMT1_GMT044	2W XFMR	B_LMT1_GMT120	B_LMT1_GMT117	1386.75	2080.13	2500.00	
G_LMT1_GMT045	2W XFMR	B_LMT1_GMT119	B_LMT1_GMT118	2218.80	3328.20	4000.00	
G_LMT1_GMT046	2W XFMR	B_LMT1_GMT126	B_LMT1_GMT125	4437.60	6656.40	8000.00	
G_LMT1_GMT047	2W XFMR	B_LMT1_GMT129	B_LMT1_GMT128	1109.40	1664.10	2000.00	
G_LMT1_GMT048	2W XFMR	B_LMT1_GMT138	B_LMT1_GMT137	2218.80	3328.20	4000.00	
G_LMT1_GMT049	2W XFMR	B_LMT1_GMT140	B_LMT1_GMT139	2218.80	3328.20	4000.00	
G_LMT1_GMT050	2W XFMR	B_LMT1_GMT147	B_LMT1_GMT146	2218.80	3328.20	4000.00	
G_LMT1_GMT051	2W XFMR	B_LMT1_GMT154	B_LMT1_GMT153	2218.80	3328.20	4000.00	
G_LMT1_GMT052	2W XFMR	B_LMT1_GMT155	B_LMT1_GMT156	4437.60	6656.40	8000.00	
G_LMT1_GMT053	2W XFMR	B_LMT1_GMT163	B_LMT1_GMT162	4437.60	6656.40	8000.00	
G_LMT1_GMT054	2W XFMR	B_LMT1_GMT164	B_LMT1_GMT165	4437.60	6656.40	8000.00	
G_LMT1_GMT055	2W XFMR	B_LMT1_GMT170	B_LMT1_GMT169	4437.60	6656.40	8000.00	
G_LMT1_GMT056	2W XFMR	B_LMT1_GMT181	B_LMT1_GMT182	2218.80	3328.20	4000.00	
G_LMT1_GMT057	2W XFMR	B_LMT1_GMT180	B_LMT1_GMT179	8875.20	13312.80	16000.00	
G_LMT1_GMT058	2W XFMR	B_LMT1_GMT188	B_LMT1_GMT187	1386.75	2080.13	2500.00	
G_LMT1_GMT059	2W XFMR	B_LMT1_GMT191	B_LMT1_GMT190	8875.20	13312.80	16000.00	
G_LMT1_GMT060	2W XFMR	B_LMT1_GMT194	B_LMT1_GMT193	4437.60	6656.40	8000.00	
G_LMT1_GMT061	2W XFMR	B_LMT1_GMT108	B_LMT1_GMT107	2218.80	3328.20	4000.00	
G_LMT1_GMT062	2W XFMR	B_LMT1_GMT91	B_LMT1_GMT90	4437.60	6656.40	8000.00	
G_LMT1_GMT063	2W XFMR	B_LMT1_GMT101	B_LMT1_GMT98	2218.80	3328.20	4000.00	
G_LMT1_GMT064	2W XFMR	B_LMT1_GMT100	B_LMT1_GMT99	887.52	1331.28	1600.00	
G_LMT1_GMT065	2W XFMR	B_LMT1_GMT79	B_LMT1_GMT75	4437.60	6656.40	8000.00	
G_LMT1_GMT066	2W XFMR	B_LMT1_GMT77	B_LMT1_GMT76	4437.60	6656.40	8000.00	
G_LMT1_GMT067	2W XFMR	B_LMT1_GMT1	B_LMT1_GMT2	2218.80	3328.20	4000.00	
G_LMT1_GMT068	2W XFMR	B_LMT1_GMT8	B_LMT1_GMT7	4437.60	6656.40	8000.00	
G_LMT1_GMT069	2W XFMR	B_LMT1_GMT17	B_LMT1_GMT16	4437.60	6656.40	8000.00	
G_LMT1_GMT070	2W XFMR	B_LMT1_GMT19	B_LMT1_GMT18	2218.80	3328.20	4000.00	
G_LMT1_GMT071	2W XFMR	B_LMT1_GMT28	B_LMT1_GMT25	4437.60	6656.40	8000.00	
G_LMT1_GMT072	2W XFMR	B_LMT1_GMT33	B_LMT1_GMT32	4437.60	6656.40	8000.00	
G_LMT1_GMT073	2W XFMR	B_LMT1_GMT60	B_LMT1_GMT55	4437.60	6656.40	8000.00	
G_LMT1_GMT074	2W XFMR	B_LMT1_GMT59	B_LMT1_GMT56	4437.60	6656.40	8000.00	
G_LMT1_GMT075	2W XFMR	B_LMT1_GMT58	B_LMT1_GMT57	2218.80	3328.20	4000.00	
G_LMT1_GMT076	2W XFMR	B_LMT1_GMT69	B_LMT1_GMT66	2218.80	3328.20	4000.00	
G_LMT1_GMT077	2W XFMR	B_LMT1_GMT68	B_LMT1_GMT67	2218.80	3328.20	4000.00	
G_LMT1_GMT079	2W XFMR	B_LMT1_GMT41	B_LMT1_GMT39	4437.60	6656.40	8000.00	
G_LMT1_GMT080	2W XFMR	B_LMT1_GMT46	B_LMT1_GMT45	2218.80	3328.20	4000.00	
G_LMT1_GMT081	2W XFMR	B_LMT1_GMT48	B_LMT1_GMT47	4437.60	6656.40	8000.00	
G_LMT1_GMT123	2W XFMR	B_LMT1_GMT208	B_LMT1_GMT207	2218.80	3328.20	4000.00	
G_LMT1_GMT132	2W XFMR	B_LMT1_GMT85	B_LMT1_GMT84	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LMT2_GMT081	2W XFMR	B_LMT2_GMT3	B_LMT2_GMT2	4437.60	6656.40	8000.00	
G_LMT2_GMT082	2W XFMR	B_LMT2_GMT7	B_LMT2_GMT6	2218.80	3328.20	4000.00	
G_LMT2_GMT083	2W XFMR	B_LMT2_GMT12	B_LMT2_GMT10	8875.20	13312.80	16000.00	
G_LMT2_GMT084	2W XFMR	B_LMT2_GMT18	B_LMT2_GMT17	4437.60	6656.40	8000.00	
G_LMT2_GMT085	2W XFMR	B_LMT2_GMT26	B_LMT2_GMT23	4437.60	6656.40	8000.00	
G_LMT2_GMT086	2W XFMR	B_LMT2_GMT25	B_LMT2_GMT24	2218.80	3328.20	4000.00	
G_LMT2_GMT087	2W XFMR	B_LMT2_GMT30	B_LMT2_GMT27	4437.60	6656.40	8000.00	
G_LMT2_GMT088	2W XFMR	B_LMT2_GMT29	B_LMT2_GMT28	4437.60	6656.40	8000.00	
G_LMT2_GMT089	2W XFMR	B_LMT2_GMT34	B_LMT2_GMT33	4437.60	6656.40	8000.00	
G_LMT2_GMT090	2W XFMR	B_LMT2_GMT41	B_LMT2_GMT40	8875.20	13312.80	16000.00	
G_LMT2_GMT091	2W XFMR	B_LMT2_GMT45	B_LMT2_GMT44	8875.20	13312.80	16000.00	
G_LMT2_GMT092	2W XFMR	B_LMT2_GMT47	B_LMT2_GMT46	4437.60	6656.40	8000.00	
G_LMT2_GMT093	2W XFMR	B_LMT2_GMT55	B_LMT2_GMT52	4437.60	6656.40	8000.00	
G_LMT2_GMT094	2W XFMR	B_LMT2_GMT54	B_LMT2_GMT53	8875.20	13312.80	16000.00	
G_LMT2_GMT095	2W XFMR	B_LMT2_GMT61	B_LMT2_GMT60	4437.60	6656.40	8000.00	
G_LMT2_GMT096	2W XFMR	B_LMT2_GMT67	B_LMT2_GMT66	4437.60	6656.40	8000.00	
G_LMT2_GMT097	2W XFMR	B_LMT2_GMT69	B_LMT2_GMT68	8875.20	13312.80	16000.00	
G_LMT2_GMT098	2W XFMR	B_LMT2_GMT77	B_LMT2_GMT76	8875.20	13312.80	16000.00	
G_LMT2_GMT099	2W XFMR	B_LMT2_GMT83	B_LMT2_GMT82	4437.60	6656.40	8000.00	
G_LMT2_GMT100	2W XFMR	B_LMT2_GMT95	B_LMT2_GMT94	2218.80	3328.20	4000.00	
G_LMT2_GMT101	2W XFMR	B_LMT2_GMT91	B_LMT2_GMT90	4437.60	6656.40	8000.00	
G_LMT2_GMT102	2W XFMR	B_LMT2_GMT109	B_LMT2_GMT108	4437.60	6656.40	8000.00	
G_LMT2_GMT103	2W XFMR	B_LMT2_GMT111	B_LMT2_GMT110	4437.60	6656.40	8000.00	
G_LMT2_GMT104	2W XFMR	B_LMT2_GMT113	B_LMT2_GMT112	4437.60	6656.40	8000.00	
G_LMT2_GMT105	2W XFMR	B_LMT2_GMT119	B_LMT2_GMT118	4437.60	6656.40	8000.00	
G_LMT2_GMT106	2W XFMR	B_LMT2_GMT131	B_LMT2_GMT130	4437.60	6656.40	8000.00	
G_LMT2_GMT107	2W XFMR	B_LMT2_GMT133	B_LMT2_GMT132	2218.80	3328.20	4000.00	
G_LMT2_GMT108	2W XFMR	B_LMT2_GMT147	B_LMT2_GMT146	4437.60	6656.40	8000.00	
G_LMT2_GMT109	2W XFMR	B_LMT2_GMT153	B_LMT2_GMT152	4437.60	6656.40	8000.00	
G_LMT2_GMT110	2W XFMR	B_LMT2_GMT155	B_LMT2_GMT154	4437.60	6656.40	8000.00	
G_LMT2_GMT111	2W XFMR	B_LMT2_GMT159	B_LMT2_GMT158	8875.20	13312.80	16000.00	
G_LMT2_GMT112	2W XFMR	B_LMT2_GMT166	B_LMT2_GMT165	4437.60	6656.40	8000.00	
G_LMT2_GMT113	2W XFMR	B_LMT2_GMT176	B_LMT2_GMT175	2218.80	3328.20	4000.00	
G_LMT2_GMT114	2W XFMR	B_LMT2_GMT178	B_LMT2_GMT177	4437.60	6656.40	8000.00	
G_LMT2_GMT116	2W XFMR	B_LMT2_GMT189	B_LMT2_GMT188	4437.60	6656.40	8000.00	
G_LMT2_GMT117	2W XFMR	B_LMT2_GMT191	B_LMT2_GMT190	4437.60	6656.40	8000.00	
G_LMT2_GMT118	2W XFMR	B_LMT2_GMT195	B_LMT2_GMT194	8875.20	13312.80	16000.00	
G_LMT2_GMT119	2W XFMR	B_LMT2_GMT197	B_LMT2_GMT196	4437.60	6656.40	8000.00	
G_LMT2_GMT120	2W XFMR	B_LMT2_GMT204	B_LMT2_GMT203	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_LMT2_GMT121	2W XFMR	B_LMT2_GMT207	B_LMT2_GMT206	4437.60	6656.40	8000.00	
G_LMT2_GMT122	2W XFMR	B_LMT2_GMT220	B_LMT2_GMT219	4437.60	6656.40	8000.00	
G_LMT2_GMT123	2W XFMR	B_LMT2_GMT216	B_LMT2_GMT215	4437.60	6656.40	8000.00	
G_LMT2_GMT124	2W XFMR	B_LMT2_GMT229	B_LMT2_GMT228	4437.60	6656.40	8000.00	
G_LMT2_GMT125	2W XFMR	B_LMT2_GMT231	B_LMT2_GMT230	4437.60	6656.40	8000.00	
G_LMT2_GMT126	2W XFMR	B_LMT2_GMT244	B_LMT2_GMT243	4437.60	6656.40	8000.00	
G_LMT2_GMT127	2W XFMR	B_LMT2_GMT246	B_LMT2_GMT245	2218.80	3328.20	4000.00	
G_LMT2_GMT128	2W XFMR	B_LMT2_GMT248	B_LMT2_GMT247	8875.20	13312.80	16000.00	
G_LMT2_GMT129	2W XFMR	B_LMT2_GMT259	B_LMT2_GMT258	4437.60	6656.40	8000.00	
G_LMT2_GMT130	2W XFMR	B_LMT2_GMT263	B_LMT2_GMT260	4437.60	6656.40	8000.00	
G_LMT2_GMT131	2W XFMR	B_LMT2_GMT262	B_LMT2_GMT261	4437.60	6656.40	8000.00	
G_LMT2_GMT135	2W XFMR	B_LMT2_GMT124	B_LMT2_GMT123	4437.60	6656.40	8000.00	
G_MR1_GMP_1	2W XFMR	Bus_MR1_GMP2	Bus_MR1_GMP1	4437.60	6656.40	8000.00	
G_MR1_GMP_2_	2W XFMR	Bus_MR1_GMP92	Bus_MR1_GMP93	8875.20	13312.80	16000.00	
G_MR1_GMP_3	2W XFMR	Bus_MR1_GMP6	Bus_MR1_GMP5	4437.60	6656.40	8000.00	
G_MR1_GMP_4	2W XFMR	Bus_MR1_GMP8	Bus_MR1_GMP7	4437.60	6656.40	8000.00	
G_MR1_GMP_5	2W XFMR	Bus_MR1_GMP10	Bus_MR1_GMP9	2218.80	3328.20	4000.00	
G_MR1_GMP_6	2W XFMR	Bus_MR1_GMP12	Bus_MR1_GMP11	1109.40	1664.10	2000.00	
G_MR1_GMP_7	2W XFMR	Bus_MR1_GMP14	Bus_MR1_GMP13	4437.60	6656.40	8000.00	
G_MR1_GMP_8	2W XFMR	Bus_MR1_GMP16	Bus_MR1_GMP15	4437.60	6656.40	8000.00	
G_MR1_GMP_9	2W XFMR	Bus_MR1_GMP18	Bus_MR1_GMP17	4437.60	6656.40	8000.00	
G_MR1_GMP_10	2W XFMR	Bus_MR1_GMP20	Bus_MR1_GMP19	2218.80	3328.20	4000.00	
G_MR1_GMP_11	2W XFMR	Bus_MR1_GMP22	Bus_MR1_GMP21	4437.60	6656.40	8000.00	
G_MR1_GMP_12	2W XFMR	Bus_MR1_GMP24	Bus_MR1_GMP23	4437.60	6656.40	8000.00	
G_MR1_GMP_13	2W XFMR	Bus_MR1_GMP26	Bus_MR1_GMP25	2218.80	3328.20	4000.00	
G_MR1_GMP_14	2W XFMR	Bus_MR1_GMP28	Bus_MR1_GMP27	2218.80	3328.20	4000.00	
G_MR1_GMP_15	2W XFMR	Bus_MR1_GMP30	Bus_MR1_GMP29	8875.20	13312.80	16000.00	
G_MR1_GMP_16	2W XFMR	Bus_MR1_GMP32	Bus_MR1_GMP31	2218.80	3328.20	4000.00	
G_MR1_GMP_17	2W XFMR	Bus_MR1_GMP34	Bus_MR1_GMP33	4437.60	6656.40	8000.00	
G_MR1_GMP_18	2W XFMR	Bus_MR1_GMP36	Bus_MR1_GMP35	4437.60	6656.40	8000.00	
G_MR1_GMP_19	2W XFMR	Bus_MR1_GMP38	Bus_MR1_GMP37	4437.60	6656.40	8000.00	
G_MR1_GMP_20_	2W XFMR	Bus_MR1_GMP86	Bus_MR1_GMP87	4437.60	6656.40	8000.00	
G_MR1_GMP_21	2W XFMR	Bus_MR1_GMP43	Bus_MR1_GMP44	4437.60	6656.40	8000.00	
G_MR1_GMP_22	2W XFMR	Bus_MR1_GMP45	Bus_MR1_GMP46	4437.60	6656.40	8000.00	
G_MR1_GMP_23	2W XFMR	Bus_MR1_GMP47	Bus_MR1_GMP48	4437.60	6656.40	8000.00	
G_MR1_GMP_24	2W XFMR	Bus_MR1_GMP49	Bus_MR1_GMP50	2218.80	3328.20	4000.00	
G_MR1_GMP_25	2W XFMR	Bus_MR1_GMP51	Bus_MR1_GMP52	4437.60	6656.40	8000.00	
G_MR1_GMP_26	2W XFMR	Bus_MR1_GMP53	Bus_MR1_GMP54	4437.60	6656.40	8000.00	
G_MR1_GMP_27	2W XFMR	Bus_MR1_GMP55	Bus_MR1_GMP56	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_MR1_GMP_28	2W XFMR	Bus_MR1_GMP57	Bus_MR1_GMP58	2218.80	3328.20	4000.00	
G_MR1_GMP_29	2W XFMR	Bus_MR1_GMP59	Bus_MR1_GMP60	2218.80	3328.20	4000.00	
G_MR1_GMP_30	2W XFMR	Bus_MR1_GMP61	Bus_MR1_GMP62	4437.60	6656.40	8000.00	
G_MR1_GMP_31	2W XFMR	Bus_MR1_GMP63	Bus_MR1_GMP64	4437.60	6656.40	8000.00	
G_MR1_GMP_32	2W XFMR	Bus_MR1_GMP65	Bus_MR1_GMP66	1386.75	2080.13	2500.00	
G_MR1_GMP_33_	2W XFMR	Bus_MR1_GMP97	Bus_MR1_GMP98	4437.60	6656.40	8000.00	
G_MR1_GMP_34	2W XFMR	Bus_MR1_GMP72	Bus_MR1_GMP73	4437.60	6656.40	8000.00	
G_MR1_GMP_35	2W XFMR	Bus_MR1_GMP74	Bus_MR1_GMP75	4437.60	6656.40	8000.00	
G_MR1_GMP_36	2W XFMR	Bus_MR1_GMP76	Bus_MR1_GMP77	4437.60	6656.40	8000.00	
G_MR1_GMP_37	2W XFMR	Bus_MR1_GMP78	Bus_MR1_GMP79	8875.20	13312.80	16000.00	
G_MR1_GMP_38	2W XFMR	Bus_MR1_GMP80	Bus_MR1_GMP81	4437.60	6656.40	8000.00	
G_MR1_GMP_39	2W XFMR	Bus_MR1_GMP82	Bus_MR1_GMP83	2218.80	3328.20	4000.00	
G_MR4_GM02	2W XFMR	B_MR04_GM2	B_MR04_GM_2	73.96	110.94	133.33	
G_MR4_GM03	2W XFMR	B_MR04_GM3	B_MR04_GM_3	2218.80	3328.20	4000.00	
G_MR4_GM04	2W XFMR	B_MR04_GM4	B_MR04_GM_4	4437.60	6656.40	8000.00	
G_MR4_GM05	2W XFMR	B_MR04_GM5	B_MR04_GM_5	8875.20	13312.80	16000.00	
G_MR4_GM06	2W XFMR	B_MR04_GM6	B_MR04_GM_6	8875.20	13312.80	16000.00	
G_MR4_GM07	2W XFMR	B_MR04_GM7	B_MR04_GM_7	8875.20	13312.80	16000.00	
G_MR4_GM08	2W XFMR	B_MR04_GM8	B_MR04_GM_8	4437.60	6656.40	8000.00	
G_MR4_GM09	2W XFMR	B_MR04_GM9	B_MR04_GM_9	4437.60	6656.40	8000.00	
G_MR4_GM10	2W XFMR	B_MR04_GM10	B_MR04_GM_10	2218.80	3328.20	4000.00	
G_MR4_GM11	2W XFMR	B_MR04_GM11	B_MR04_GM_11	8875.20	13312.80	16000.00	
G_MR4_GM12	2W XFMR	B_MR04_GM12	B_MR04_GM_12	8875.20	13312.80	16000.00	
G_MR4_GM13	2W XFMR	B_MR04_GM13	B_MR04_GM_13	4437.60	6656.40	8000.00	
G_MR4_GM14	2W XFMR	B_MR04_GM14	B_MR04_GM_14	4437.60	6656.40	8000.00	
G_MR4_GM15	2W XFMR	B_MR04_GM15	B_MR04_GM_15	8875.20	13312.80	16000.00	
G_MR4_GM16	2W XFMR	B_MR04_GM16	B_MR04_GM_16	2218.80	3328.20	4000.00	
G_MR4_GM17	2W XFMR	B_MR04_GM17	B_MR04_GM_17	4437.60	6656.40	8000.00	
G_MR4_GM18	2W XFMR	B_MR04_GM18	B_MR04_GM_18	4437.60	6656.40	8000.00	
G_MR4_GM19	2W XFMR	B_MR04_GM19	B_MR04_GM_19	2218.80	3328.20	4000.00	
G_MR4_GM20	2W XFMR	B_MR04_GM20	B_MR04_GM_20	4437.60	6656.40	8000.00	
G_MR4_GM21	2W XFMR	B_MR04_GM21	B_MR04_GM_21	4437.60	6656.40	8000.00	
G_MR4_GM22	2W XFMR	B_MR04_GM22	B_MR04_GM_22	2218.80	3328.20	4000.00	
G_MR4_GM23	2W XFMR	B_MR04_GM23	B_MR04_GM_23	8875.20	13312.80	16000.00	
G_MR4_GM24	2W XFMR	B_MR04_GM24	B_MR04_GM_24	4437.60	6656.40	8000.00	
G_MR4_GM25	2W XFMR	B_MR04_GM25	B_MR04_GM_25	2218.80	3328.20	4000.00	
G_MR4_GM26	2W XFMR	B_MR04_GM26	B_MR04_GM_26	4437.60	6656.40	8000.00	
G_MR4_GM27	2W XFMR	B_MR04_GM27	B_MR04_GM_27	4437.60	6656.40	8000.00	
G_MR4_GM28	2W XFMR	B_MR04_GM28	B_MR04_GM_28	4437.60	6656.40	8000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_MR4_GM29	2W XFMR	B_MR04_GM29	B_MR04_GM_29	4437.60	6656.40	8000.00	
G_MR4_GM30	2W XFMR	B_MR04_GM30	B_MR04_GM_30	4437.60	6656.40	8000.00	
G_MR4_GM31	2W XFMR	B_MR04_GM31	B_MR04_GM_31	2218.80	3328.20	4000.00	
G_MR4_GM32	2W XFMR	B_MR04_GM32	B_MR04_GM_32	8875.20	13312.80	16000.00	
G_MR4_GM33	2W XFMR	B_MR04_GM33	B_MR04_GM_33	2218.80	3328.20	4000.00	
G_MR4_GM34	2W XFMR	B_MR04_GM34	B_MR04_GM_34	2218.80	3328.20	4000.00	
G_MR4_GM35	2W XFMR	B_MR04_GM35	B_MR04_GM_35	4437.60	6656.40	8000.00	
G_MR4_GM36	2W XFMR	B_MR04_GM36	B_MR04_GM_36	8875.20	13312.80	16000.00	
G_MR4_GM37	2W XFMR	B_MR04_GM37	B_MR04_GM_37	2218.80	3328.20	4000.00	
G_MR4_GM38	2W XFMR	B_MR04_GM38	B_MR04_GM_38	4437.60	6656.40	8000.00	
G_MR4_GM39	2W XFMR	B_MR04_GM39	B_MR04_GM_39	4437.60	6656.40	8000.00	
G_MR4_GM40	2W XFMR	B_MR04_GM40	B_MR04_GM_40	2218.80	3328.20	4000.00	
G_MR4_GM41	2W XFMR	B_MR04_GM41	B_MR04_GM_41	2218.80	3328.20	4000.00	
G_MR4_GM42	2W XFMR	B_MR04_GM42	B_MR04_GM_42	2218.80	3328.20	4000.00	
G_MR4_GM43	2W XFMR	B_MR04_GM43	B_MR04_GM_43	4437.60	6656.40	8000.00	
G_MR4_GM44	2W XFMR	B_MR04_GM44	B_MR04_GM_44	2218.80	3328.20	4000.00	
G_MR4_GM45	2W XFMR	B_MR04_GM45	B_MR04_GM_45	4437.60	6656.40	8000.00	
G_MR4_GM46	2W XFMR	B_MR04_GM46	B_MR04_GM_46	2218.80	3328.20	4000.00	
G_MR4_GM47	2W XFMR	B_MR04_GM47	B_MR04_GM_47	4437.60	6656.40	8000.00	
G_MR4_GM48	2W XFMR	B_MR04_GM48	B_MR04_GM_48	2218.80	3328.20	4000.00	
G_MR4_GM49	2W XFMR	B_MR04_GM49	B_MR04_GM_49	2218.80	3328.20	4000.00	
G_MR4_GMP01	2W XFMR	B_MR04_GM1	B_MR04_GM_1	4437.60	6656.40	8000.00	
G_MR6_GMP040	2W XFMR	B_MR6_GMP4	B_MR6_GMP3	8875.20	13312.80	16000.00	
G_MR6_GMP041	2W XFMR	B_MR6_GMP7	B_MR6_GMP6	4437.60	6656.40	8000.00	
G_MR6_GMP042	2W XFMR	B_MR6_GMP11	B_MR6_GMP10	4437.60	6656.40	8000.00	
G_MR6_GMP043	2W XFMR	B_MR6_GMP13	B_MR6_GMP12	2218.80	3328.20	4000.00	
G_MR6_GMP044	2W XFMR	B_MR6_GMP15	B_MR6_GMP14	2218.80	3328.20	4000.00	
G_MR6_GMP045	2W XFMR	B_MR6_GMP21	B_MR6_GMP20	2218.80	3328.20	4000.00	
G_MR6_GMP046	2W XFMR	B_MR6_GMP26	B_MR6_GMP24	4437.60	6656.40	8000.00	
G_MR6_GMP047	2W XFMR	B_MR6_GMP32	B_MR6_GMP31	4437.60	6656.40	8000.00	
G_MR6_GMP048	2W XFMR	B_MR6_GMP36	B_MR6_GMP35	1109.40	1664.10	2000.00	
G_MR6_GMP049	2W XFMR	B_MR6_GMP44	B_MR6_GMP43	4437.60	6656.40	8000.00	
G_MR6_GMP050	2W XFMR	B_MR6_GMP45	B_MR6_GMP42	4437.60	6656.40	8000.00	
G_MR6_GMP051	2W XFMR	B_MR6_GMP54	B_MR6_GMP51	4437.60	6656.40	8000.00	
G_MR6_GMP052	2W XFMR	B_MR6_GMP53	B_MR6_GMP52	4437.60	6656.40	8000.00	
G_MR6_GMP053	2W XFMR	B_MR6_GMP59	B_MR6_GMP58	4437.60	6656.40	8000.00	
G_MR6_GMP054	2W XFMR	B_MR6_GMP63	B_MR6_GMP62	2218.80	3328.20	4000.00	
G_MR6_GMP055	2W XFMR	B_MR6_GMP65	B_MR6_GMP64	4437.60	6656.40	8000.00	
G_MR6_GMP056	2W XFMR	B_MR6_GMP70	B_MR6_GMP69	2218.80	3328.20	4000.00	

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
G_MR6_GMP057	2W XFMR	B_MR6_GMP73	B_MR6_GMP71	4437.60	6656.40	8000.00	
G_MR6_GMP058	2W XFMR	B_MR6_GMP77	B_MR6_GMP76	2218.80	3328.20	4000.00	
G_MR6_GMP059	2W XFMR	B_MR6_GMP79	B_MR6_GMP78	4437.60	6656.40	8000.00	
G_MR6_GMP060	2W XFMR	B_MR6_GMP81	B_MR6_GMP80	4437.60	6656.40	8000.00	
G_MR6_GMP061	2W XFMR	B_MR6_GMT3	B_MR6_GMT1	2218.80	3328.20	4000.00	
G_MR6_GMT001	2W XFMR	B_MR6_GMT9	B_MR6_GMT8	8875.20	13312.80	16000.00	
G_MR6_GMT002	2W XFMR	B_MR6_GMT13	B_MR6_GMT14	4437.60	6656.40	8000.00	
G_MR6_GMT003	2W XFMR	B_MR6_GMT19	B_MR6_GMT18	4437.60	6656.40	8000.00	
G_MR6_GMT004	2W XFMR	B_MR6_GMT21	B_MR6_GMT20	2218.80	3328.20	4000.00	
G_MR6_GMT005	2W XFMR	B_MR6_GMT27	B_MR6_GMT26	2218.80	3328.20	4000.00	
G_MR6_GMT006	2W XFMR	B_MR6_GMT30	B_MR6_GMT31	8875.20	13312.80	16000.00	
G_MR6_GMT007	2W XFMR	B_MR6_GMT37	B_MR6_GMT36	4437.60	6656.40	8000.00	
G_MR6_GMT008	2W XFMR	B_MR6_GMT47	B_MR6_GMT45	8875.20	13312.80	16000.00	
G_MR6_GMT009	2W XFMR	B_MR6_GMT48	B_MR6_GMT44	8875.20	13312.80	16000.00	
G_MR6_GMT010	2W XFMR	B_MR6_GMT54	B_MR6_GMT53	4437.60	6656.40	8000.00	
G_MR6_GMT011	2W XFMR	B_MR6_GMT59	B_MR6_GMT58	4437.60	6656.40	8000.00	
G_MR6_GMT012	2W XFMR	B_MR6_GMT61	B_MR6_GMT60	2218.80	3328.20	4000.00	
G_MR6_GMT013	2W XFMR	B_MR6_GMT63	B_MR6_GMT62	8875.20	13312.80	16000.00	
G_MR6_GMT015	2W XFMR	B_MR6_GMT65	B_MR6_GMT64	4437.60	6656.40	8000.00	
G_MR6_GMT016	2W XFMR	B_MR6_GMT73	B_MR6_GMT70	4437.60	6656.40	8000.00	
G_MR6_GMT017	2W XFMR	B_MR6_GMT72	B_MR6_GMT71	8875.20	13312.80	16000.00	
G_MR6_GMT018	2W XFMR	B_MR6_GMT77	B_MR6_GMT74	4437.60	6656.40	8000.00	
G_MR6_GMT020	2W XFMR	B_MR6_GMT81	B_MR6_GMT80	2218.80	3328.20	4000.00	
G_MR6_GMT021	2W XFMR	B_MR6_GMT84	B_MR6_GMT82	4437.60	6656.40	8000.00	
G_MR6_GMT022	2W XFMR	B_MR6_GMT88	B_MR6_GMT87	2218.80	3328.20	4000.00	
G_MR6_GMT023	2W XFMR	B_MR6_GMT92	B_MR6_GMT91	2218.80	3328.20	4000.00	
G_MR6_GMT024	2W XFMR	B_MR6_GMT99	B_MR6_GMT96	4437.60	6656.40	8000.00	
G_MR6_GMT025	2W XFMR	B_MR6_GMT103	B_MR6_GMT102	4437.60	6656.40	8000.00	
G_MR6_GMT026	2W XFMR	B_MR6_GMT111	B_MR6_GMT110	4437.60	6656.40	8000.00	
G_MR6_GMT027	2W XFMR	B_MR6_GMT113	B_MR6_GMT109	4437.60	6656.40	8000.00	
G_MR6_GMT028	2W XFMR	B_MR6_GMT117	B_MR6_GMT116	4437.60	6656.40	8000.00	
G_MR6_GMT029	2W XFMR	B_MR6_GMT127	B_MR6_GMT126	8875.20	13312.80	16000.00	
G_MR6_GMT030	2W XFMR	B_MR6_GMT124	B_MR6_GMT123	8875.20	13312.80	16000.00	
G_MR6_GMT134	2W XFMR	B_MR6_GMT76	B_MR6_GMT75	4437.60	6656.40	8000.00	
INC LM3	Cable	GH LEMITO	Bus_LM1_249	1.92	1.23	2.28	0.0188600
INC_MR.6	Cable	GH TILAMUTA	MR6 V UJUNG2	1.92	1.23	2.28	0.0188600
LM.1	Cable	GH MARISA1	Bus_LM1_1	1.92	1.23	2.28	0.0188600
LM.2	Cable	GH MARISA1	B_MR3	1.92	1.23	2.28	0.0188600
LM.3	Cable	GH MARISA	B_LM3	1.92	1.23	2.28	0.0188600

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
LM.4	Cable	GH MARISA1	Bus_LM1_169	1.92	1.23	2.28	0.0188600
LM.5	Cable	GH MARISA	B_AG2_GK7	1.92	1.23	2.28	0.0188600
LMT.1	Cable	GH TILAMUTA	B_MR6_GMT130	1.92	1.23	2.28	0.0188600
LMT.2	Cable	GH TILAMUTA	B_LMT2_1	1.92	1.23	2.28	0.0188600
LO_1	Cable	GH LEMITO	Bus_LM1_251	1.92	1.23	2.28	0.0188600
MR.1	Cable	GI MARISA	Bus_MR1_GMP94	1.92	1.23	2.28	0.0188600
MR.3	Cable	GI MARISA	B_AG2_GK7	138.96	93.67	167.58	
MR.4	Cable	GI MARISA	B_MR04_GM	1.92	1.23	2.28	0.0188600
MR.6	Cable	GI MARISA	B_MR6_GMP1	1.92	1.23	2.28	0.0188600
L_AG2_3	Line	Bus_LM1_46	LM1 V UJUNG	3.19	2.83	4.26	0.0004162
L_AG2_43	Line	B_LMT2_GMT262	LMT2 V UJUNG	7.44	6.60	9.94	0.0009711
L_AG2_55	Line	B_MR6_GMP2	MR6 V UJUNG	21.26	18.85	28.41	0.0027747
L_AG2_58	Line	B_MR6_GMP82	MR6 V UJUNG	6.38	5.65	8.52	0.0008324
L_AG2_62	Line	B_LMT1_GMT195	LMT1 V UJUNG	7.44	6.60	9.94	0.0009711
L_AG2_65	Line	Bus_MR1_GMP82	MR1 V UJUNG	13.11	9.55	16.23	0.0013587
L_AG2_66	Line	B_MR04_GM18	B_MR3	5.32	4.71	7.10	0.0006937
L_AG2_68	Line	Bus_LM1_167	LM4 V UJUNG	7.44	6.60	9.94	0.0009711
L_AG2_74	Line	Bus_LM3_113	LM3 V UJUNG	3.37	4.78	5.85	0.0007274
L_AG2_77	Line	Bus_LM1_383	LO2 V UJUNG	4.25	3.77	5.68	0.0005549
L_LM1_GM_1	Line	Bus_LM1_1	Bus_LM1_3	10.63	9.43	14.21	0.0013876
L_LM1_GM_3	Line	Bus_LM1_3	Bus_LM1_7	10.63	9.43	14.21	0.0013876
L_LM1_GM_4	Line	Bus_LM1_7	Bus_LM1_9	10.63	9.43	14.21	0.0013876
L_LM1_GM_5	Line	Bus_LM1_9	Bus_LM1_11	10.63	9.43	14.21	0.0013876
L_LM1_GM_6	Line	Bus_LM1_11	Bus_LM1_13	10.63	9.43	14.21	0.0013876
L_LM1_GM_7	Line	Bus_LM1_13	Bus_LM1_15	10.63	9.43	14.21	0.0013876
L_LM1_GM_8	Line	Bus_LM1_15	Bus_LM1_17	10.63	9.43	14.21	0.0013876
L_LM1_GM_9	Line	Bus_LM1_17	Bus_LM1_19	10.63	9.43	14.21	0.0013876
L_LM1_GM_10	Line	Bus_LM1_19	Bus_LM1_21	10.63	9.43	14.21	0.0013876
L_LM1_GM_12	Line	Bus_LM1_21	Bus_LM1_25	10.63	9.43	14.21	0.0013876
L_LM1_GM_13	Line	Bus_LM1_25	Bus_LM1_41	10.63	9.43	14.21	0.0013876
L_LM1_GM_16	Line	Bus_LM1_41	Bus_LM1_31	10.63	9.43	14.21	0.0013876
L_LM1_GM_17	Line	Bus_LM1_35	Bus_LM1_33	10.63	9.43	14.21	0.0013876
L_LM1_GM_18	Line	Bus_LM1_39	Bus_LM1_35	10.63	9.43	14.21	0.0013876
L_LM1_GM_19	Line	Bus_LM1_31	Bus_LM1_37	10.63	9.43	14.21	0.0013876
L_LM1_GM_20	Line	Bus_LM1_37	Bus_LM1_39	10.63	9.43	14.21	0.0013876
L_LM1_GM_21	Line	Bus_LM1_33	Bus_LM1_42	10.63	9.43	14.21	0.0013876
L_LM1_GM_22	Line	Bus_LM1_42	Bus_LM1_44	10.63	9.43	14.21	0.0013876
L_LM1_GM_23	Line	Bus_LM1_44	Bus_LM1_46	10.63	9.43	14.21	0.0013876
L_LM1_GM_29	Line	Bus_LM1_35	Bus_LM1_59	10.63	9.43	14.21	0.0013876

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_30	Line	Bus_LM1_59	Bus_LM1_66	10.63	9.43	14.21	0.0013876
L_LM1_GM_31	Line	Bus_LM1_64	Bus_LM1_63	10.63	9.43	14.21	0.0013876
L_LM1_GM_32	Line	Bus_LM1_65	Bus_LM1_64	10.63	9.43	14.21	0.0013876
L_LM1_GM_33	Line	Bus_LM1_66	Bus_LM1_65	10.63	9.43	14.21	0.0013876
L_LM1_GM_35	Line	Bus_LM1_7	Bus_LM1_70	10.63	9.43	14.21	0.0013876
L_LM1_GM_37	Line	Bus_LM1_70	Bus_LM1_74	10.63	9.43	14.21	0.0013876
L_LM1_GM_38	Line	Bus_LM1_74	Bus_LM1_76	10.63	9.43	14.21	0.0013876
L_LM1_GM_39	Line	Bus_LM1_76	Bus_LM1_78	10.63	9.43	14.21	0.0013876
L_LM1_GM_40	Line	Bus_LM1_78	Bus_LM1_80	10.63	9.43	14.21	0.0013876
L_LM1_GM_41	Line	Bus_LM1_80	Bus_LM1_82	10.63	9.43	14.21	0.0013876
L_LM1_GM_42	Line	Bus_LM1_82	Bus_LM1_84	10.63	9.43	14.21	0.0013876
L_LM1_GM_43	Line	Bus_LM1_84	Bus_LM1_86	10.63	9.43	14.21	0.0013876
L_LM1_GM_45	Line	Bus_LM1_86	Bus_LM1_91	10.63	9.43	14.21	0.0013876
L_LM1_GM_46	Line	Bus_LM1_91	Bus_LM1_93	10.63	9.43	14.21	0.0013876
L_LM1_GM_47	Line	Bus_LM1_97	Bus_LM1_95	10.63	9.43	14.21	0.0013876
L_LM1_GM_48	Line	Bus_LM1_93	Bus_LM1_97	10.63	9.43	14.21	0.0013876
L_LM1_GM_49	Line	Bus_LM1_95	Bus_LM1_99	10.63	9.43	14.21	0.0013876
L_LM1_GM_50	Line	Bus_LM1_99	Bus_LM1_101	10.63	9.43	14.21	0.0013876
L_LM1_GM_55	Line	Bus_LM1_101	Bus_LM1_115	10.63	9.43	14.21	0.0013876
L_LM1_GM_56	Line	Bus_LM1_114	Bus_LM1_113	10.63	9.43	14.21	0.0013876
L_LM1_GM_57	Line	Bus_LM1_115	Bus_LM1_114	10.63	9.43	14.21	0.0013876
L_LM1_GM_61	Line	Bus_LM1_151	Bus_LM1_125	10.63	9.43	14.21	0.0013876
L_LM1_GM_62	Line	Bus_LM1_125	Bus_LM1_126	10.63	9.43	14.21	0.0013876
L_LM1_GM_63	Line	Bus_LM1_126	Bus_LM1_127	10.63	9.43	14.21	0.0013876
L_LM1_GM_67	Line	Bus_LM1_127	Bus_LM1_137	10.63	9.43	14.21	0.0013876
L_LM1_GM_68	Line	Bus_LM1_137	Bus_LM1_138	10.63	9.43	14.21	0.0013876
L_LM1_GM_69	Line	Bus_LM1_138	Bus_LM1_139	10.63	9.43	14.21	0.0013876
L_LM1_GM_73	Line	Bus_LM1_169	Bus_LM1_151	10.63	9.43	14.21	0.0013876
L_LM1_GM_74	Line	Bus_LM1_150	Bus_LM1_149	10.63	9.43	14.21	0.0013876
L_LM1_GM_75	Line	Bus_LM1_151	Bus_LM1_150	10.63	9.43	14.21	0.0013876
L_LM1_GM_76	Line	Bus_LM1_149	Bus_LM1_157	10.63	9.43	14.21	0.0013876
L_LM1_GM_77	Line	Bus_LM1_150	Bus_LM1_155	10.63	9.43	14.21	0.0013876
L_LM1_GM_78	Line	Bus_LM1_157	Bus_LM1_156	10.63	9.43	14.21	0.0013876
L_LM1_GM_79	Line	Bus_LM1_155	Bus_LM1_163	10.63	9.43	14.21	0.0013876
L_LM1_GM_80	Line	Bus_LM1_162	Bus_LM1_161	10.63	9.43	14.21	0.0013876
L_LM1_GM_81	Line	Bus_LM1_163	Bus_LM1_162	10.63	9.43	14.21	0.0013876
L_LM1_GM_83	Line	Bus_LM1_161	Bus_LM1_167	10.63	9.43	14.21	0.0013876
L_LM1_GM_93	Line	B_LM3	Bus_LM3_188	3.37	4.78	5.85	0.0007275
L_LM1_GM_95	Line	Bus_LM3_188	Bus_LM3_3	3.37	4.78	5.85	0.0007275

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_96	Line	Bus_LM3_3	Bus_LM3_5	3.37	4.78	5.85	0.0007275
L_LM1_GM_97	Line	Bus_LM3_5	Bus_LM3_7	3.37	4.78	5.85	0.0007275
L_LM1_GM_98	Line	Bus_LM3_7	Bus_LM3_9	3.37	4.78	5.85	0.0007275
L_LM1_GM_99	Line	Bus_LM3_9	Bus_LM3_11	3.37	4.78	5.85	0.0007275
L_LM1_GM_100	Line	Bus_LM3_11	Bus_LM3_13	3.37	4.78	5.85	0.0007275
L_LM1_GM_102	Line	Bus_LM3_13	Bus_LM3_188_	3.37	4.78	5.85	0.0007275
L_LM1_GM_110	Line	Bus_LM3_188_	Bus_LM3_37	3.37	4.78	5.85	0.0007275
L_LM1_GM_111	Line	Bus_LM3_32	Bus_LM3_41	10.63	9.43	14.21	0.0013876
L_LM1_GM_112	Line	Bus_LM3_33	Bus_LM3_32	10.63	9.43	14.21	0.0013876
L_LM1_GM_113	Line	Bus_LM3_34	Bus_LM3_33	3.37	4.78	5.85	0.0007275
L_LM1_GM_114	Line	Bus_LM3_35	Bus_LM3_34	3.37	4.78	5.85	0.0007275
L_LM1_GM_115	Line	Bus_LM3_36	Bus_LM3_35	3.37	4.78	5.85	0.0007275
L_LM1_GM_116	Line	Bus_LM3_37	Bus_LM3_36	3.37	4.78	5.85	0.0007275
L_LM1_GM_124	Line	Bus_LM3_33	Bus_LM3_63	3.37	4.78	5.85	0.0007275
L_LM1_GM_125	Line	Bus_LM3_63	Bus_LM3_64	3.37	4.78	5.85	0.0007275
L_LM1_GM_126	Line	Bus_LM3_64	Bus_LM3_65	3.37	4.78	5.85	0.0007275
L_LM1_GM_127	Line	Bus_LM3_65	Bus_LM3_66	3.37	4.78	5.85	0.0007275
L_LM1_GM_128	Line	Bus_LM3_66	Bus_LM3_67	3.37	4.78	5.85	0.0007275
L_LM1_GM_129	Line	Bus_LM3_67	Bus_LM3_68	10.63	9.43	14.21	0.0013876
L_LM1_GM_130	Line	Bus_LM3_68	Bus_LM3_69	10.63	9.43	14.21	0.0013876
L_LM1_GM_133	Line	Bus_LM3_69	Bus_LM3_76	10.63	9.43	14.21	0.0013876
L_LM1_GM_134	Line	Bus_LM3_76	Bus_LM3_77	10.63	9.43	14.21	0.0013876
L_LM1_GM_135	Line	Bus_LM3_77	Bus_LM3_80	10.63	9.43	14.21	0.0013876
L_LM1_GM_136	Line	Bus_LM3_80	Bus_LM3_81	10.63	9.43	14.21	0.0013876
L_LM1_GM_137	Line	Bus_LM3_81	Bus_LM3_84	10.63	9.43	14.21	0.0013876
L_LM1_GM_138	Line	Bus_LM3_67	Bus_LM3_85	10.63	9.43	14.21	0.0013876
L_LM1_GM_139	Line	Bus_LM3_85	Bus_LM3_88	10.63	9.43	14.21	0.0013876
L_LM1_GM_140	Line	Bus_LM3_88	Bus_LM3_89	10.63	9.43	14.21	0.0013876
L_LM1_GM_143	Line	Bus_LM3_89	Bus_LM3_96	10.63	9.43	14.21	0.0013876
L_LM1_GM_144	Line	Bus_LM3_96	Bus_LM3_97	10.63	9.43	14.21	0.0013876
L_LM1_GM_150	Line	Bus_LM3_67	Bus_LM3_117	3.37	4.78	5.85	0.0007275
L_LM1_GM_151	Line	Bus_LM3_114	Bus_LM3_113	3.37	4.78	5.85	0.0007275
L_LM1_GM_152	Line	Bus_LM3_115	Bus_LM3_114	3.37	4.78	5.85	0.0007275
L_LM1_GM_153	Line	Bus_LM3_116	Bus_LM3_115	3.37	4.78	5.85	0.0007275
L_LM1_GM_154	Line	Bus_LM3_117	Bus_LM3_116	3.37	4.78	5.85	0.0007275
L_LM1_GM_160	Line	Bus_LM3_115	Bus_LM3_137	10.63	9.43	14.21	0.0013876
L_LM1_GM_161	Line	Bus_LM3_134	Bus_LM3_133	10.63	9.43	14.21	0.0013876
L_LM1_GM_162	Line	Bus_LM3_135	Bus_LM3_134	10.63	9.43	14.21	0.0013876
L_LM1_GM_163	Line	Bus_LM3_136	Bus_LM3_135	10.63	9.43	14.21	0.0013876

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_164	Line	Bus_LM3_137	Bus_LM3_136	10.63	9.43	14.21	0.0013876
L_LM1_GM_166	Line	Bus_LM3_84	Bus_LM3_140	10.63	9.43	14.21	0.0013876
L_LM1_GM_168	Line	Bus_LM3_140	Bus_LM3_144	10.63	9.43	14.21	0.0013876
L_LM1_GM_169	Line	Bus_LM3_144	Bus_LM3_146	10.63	9.43	14.21	0.0013876
L_LM1_GM_172	Line	Bus_LM3_146	Bus_LM3_152	10.63	9.43	14.21	0.0013876
L_LM1_GM_174	Line	Bus_LM1_189	Bus_LM3_156	10.63	9.43	14.21	0.0013876
L_LM1_GM_175	Line	Bus_LM1_191	Bus_LM1_190	10.63	9.43	14.21	0.0013876
L_LM1_GM_176	Line	Bus_LM1_191	Bus_LM3_160	10.63	9.43	14.21	0.0013876
L_LM1_GM_177	Line	Bus_LM3_160	Bus_LM3_162	10.63	9.43	14.21	0.0013876
L_LM1_GM_178	Line	Bus_LM3_162	Bus_LM3_164	10.63	9.43	14.21	0.0013876
L_LM1_GM_179	Line	Bus_LM3_164	Bus_LM3_166	10.63	9.43	14.21	0.0013876
L_LM1_GM_181	Line	Bus_LM1_190	Bus_LM3_170	10.63	9.43	14.21	0.0013876
L_LM1_GM_183	Line	Bus_LM3_152	Bus_LM1_189	10.63	9.43	14.21	0.0013876
L_LM1_GM_185	Line	Bus_LM1_189	Bus_LM1_191	10.63	9.43	14.21	0.0013876
L_LM1_GM_187	Line	Bus_LM3_152	Bus_LM1_193	10.63	9.43	14.21	0.0013876
L_LM1_GM_189	Line	Bus_LM1_193	Bus_LM1_195	10.63	9.43	14.21	0.0013876
L_LM1_GM_190	Line	Bus_LM1_195	Bus_LM1_196	10.63	9.43	14.21	0.0013876
L_LM1_GM_191	Line	Bus_LM1_196	Bus_LM1_197	10.63	9.43	14.21	0.0013876
L_LM1_GM_192	Line	Bus_LM1_197	Bus_LM1_198	10.63	9.43	14.21	0.0013876
L_LM1_GM_194	Line	Bus_LM1_197	Bus_LM1_200	10.63	9.43	14.21	0.0013876
L_LM1_GM_196	Line	Bus_LM1_200	Bus_LM1_202	10.63	9.43	14.21	0.0013876
L_LM1_GM_197	Line	Bus_LM1_202	Bus_LM1_203	10.63	9.43	14.21	0.0013876
L_LM1_GM_198	Line	Bus_LM1_203	Bus_LM1_204	10.63	9.43	14.21	0.0013876
L_LM1_GM_203	Line	Bus_LM1_203	Bus_LM1_212	4.72	6.69	8.19	0.0010185
L_LM1_GM_204	Line	Bus_LM1_210	Bus_LM1_209	4.72	6.69	8.19	0.0010185
L_LM1_GM_205	Line	Bus_LM1_211	Bus_LM1_210	4.72	6.69	8.19	0.0010185
L_LM1_GM_206	Line	Bus_LM1_212	Bus_LM1_211	4.72	6.69	8.19	0.0010185
L_LM1_GM_208	Line	LO1 V UJUNG	Bus_LM1_215	3.37	4.78	5.85	0.0007275
L_LM1_GM_210	Line	Bus_LM1_215	Bus_LM1_217	3.37	4.78	5.85	0.0007275
L_LM1_GM_211	Line	Bus_LM1_217	Bus_LM1_218	3.37	4.78	5.85	0.0007275
L_LM1_GM_212	Line	Bus_LM1_218	Bus_LM1_219	3.37	4.78	5.85	0.0007275
L_LM1_GM_213	Line	Bus_LM1_219	Bus_LM1_220	3.37	4.78	5.85	0.0007275
L_LM1_GM_214	Line	Bus_LM1_220	Bus_LM1_221	3.37	4.78	5.85	0.0007275
L_LM1_GM_215	Line	Bus_LM1_221	Bus_LM1_222	3.37	4.78	5.85	0.0007275
L_LM1_GM_217	Line	Bus_LM1_222	Bus_LM1_224	3.37	4.78	5.85	0.0007275
L_LM1_GM_219	Line	Bus_LM1_224	Bus_LM1_226	3.37	4.78	5.85	0.0007275
L_LM1_GM_220	Line	Bus_LM1_226	Bus_LM1_227	3.37	4.78	5.85	0.0007275
L_LM1_GM_221	Line	Bus_LM1_227	Bus_LM1_228	3.37	4.78	5.85	0.0007275
L_LM1_GM_222	Line	Bus_LM1_228	Bus_LM1_229	3.37	4.78	5.85	0.0007275

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_223	Line	Bus_LM1_229	Bus_LM1_230	6.29	8.99	10.97	0.0014646
L_LM1_GM_224	Line	Bus_LM1_230	Bus_LM1_231	6.29	8.99	10.97	0.0014646
L_LM1_GM_225	Line	Bus_LM1_229	Bus_LM1_232	3.37	4.78	5.85	0.0007275
L_LM1_GM_226	Line	Bus_LM1_232	Bus_LM1_233	3.37	4.78	5.85	0.0007275
L_LM1_GM_229	Line	Bus_LM1_233	Bus_LM1_237	3.37	4.78	5.85	0.0007275
L_LM1_GM_230	Line	Bus_LM1_237	Bus_LM1_236	3.37	4.78	5.85	0.0007275
L_LM1_GM_231	Line	Bus_LM1_236	Bus_LM1_239	3.37	4.78	5.85	0.0007275
L_LM1_GM_232	Line	Bus_LM1_239	Bus_LM1_238	3.37	4.78	5.85	0.0007275
L_LM1_GM_233	Line	Bus_LM1_238	Bus_LM1_241	3.37	4.78	5.85	0.0007275
L_LM1_GM_234	Line	Bus_LM1_241	Bus_LM1_240	3.37	4.78	5.85	0.0007275
L_LM1_GM_235	Line	Bus_LM1_240	Bus_LM1_243	3.37	4.78	5.85	0.0007275
L_LM1_GM_236	Line	Bus_LM1_243	Bus_LM1_242	10.63	9.43	14.21	0.0013876
L_LM1_GM_237	Line	Bus_LM1_242	Bus_LM1_245	10.63	9.43	14.21	0.0013876
L_LM1_GM_238	Line	Bus_LM1_243	Bus_LM1_244	3.37	4.78	5.85	0.0007275
L_LM1_GM_241	Line	Bus_LM1_244	Bus_LM1_249	3.37	4.78	5.85	0.0007275
L_LM1_GM_246	Line	Bus_LM1_251	Bus_LM1_253	4.25	3.77	5.68	0.0005551
L_LM1_GM_247	Line	Bus_LM1_253	Bus_LM1_254	4.25	3.77	5.68	0.0005551
L_LM1_GM_248	Line	Bus_LM1_254	Bus_LM1_255	4.25	3.77	5.68	0.0005551
L_LM1_GM_251	Line	Bus_LM1_255	Bus_LM1_259	4.25	3.77	5.68	0.0005551
L_LM1_GM_252	Line	Bus_LM1_259	Bus_LM1_258	4.25	3.77	5.68	0.0005551
L_LM1_GM_257	Line	Bus_LM1_258	Bus_LM1_267	4.25	3.77	5.68	0.0005551
L_LM1_GM_258	Line	Bus_LM1_265	Bus_LM1_264	4.25	3.77	5.68	0.0005551
L_LM1_GM_259	Line	Bus_LM1_266	Bus_LM1_265	4.25	3.77	5.68	0.0005551
L_LM1_GM_260	Line	Bus_LM1_267	Bus_LM1_266	4.25	3.77	5.68	0.0005551
L_LM1_GM_263	Line	Bus_LM1_264	Bus_LM1_270	10.63	9.43	14.21	0.0013876
L_LM1_GM_264	Line	Bus_LM1_270	Bus_LM1_271	10.63	9.43	14.21	0.0013876
L_LM1_GM_267	Line	Bus_LM1_264	Bus_LM1_275	4.25	3.77	5.68	0.0005551
L_LM1_GM_268	Line	Bus_LM1_278	Bus_LM1_274	10.63	9.43	14.21	0.0013876
L_LM1_GM_270	Line	Bus_LM1_274	Bus_LM1_277	10.63	9.43	14.21	0.0013876
L_LM1_GM_272	Line	Bus_LM1_275	Bus_LM1_278	4.25	3.77	5.68	0.0005551
L_LM1_GM_275	Line	Bus_LM1_282	Bus_LM1_281	10.63	9.43	14.21	0.0013876
L_LM1_GM_276	Line	Bus_LM1_277	Bus_LM1_282	10.63	9.43	14.21	0.0013876
L_LM1_GM_277	Line	Bus_LM1_284	Bus_LM1_283	10.63	9.43	14.21	0.0013876
L_LM1_GM_278	Line	Bus_LM1_281	Bus_LM1_284	10.63	9.43	14.21	0.0013876
L_LM1_GM_279	Line	Bus_LM1_278	Bus_LM1_285	10.63	9.43	14.21	0.0013876
L_LM1_GM_280	Line	Bus_LM1_283	Bus_LM1_286	10.63	9.43	14.21	0.0013876
L_LM1_GM_282	Line	Bus_LM1_285	Bus_LM1_288	10.63	9.43	14.21	0.0013876
L_LM1_GM_286	Line	Bus_LM1_278	Bus_LM1_294	10.63	9.43	14.21	0.0013876
L_LM1_GM_287	Line	Bus_LM1_293	Bus_LM1_292	10.63	9.43	14.21	0.0013876

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_288	Line	Bus_LM1_294	Bus_LM1_293	10.63	9.43	14.21	0.0013876
L_LM1_GM_292	Line	Bus_LM1_278	Bus_LM1_300	4.25	3.77	5.68	0.0005551
L_LM1_GM_293	Line	Bus_LM1_299	Bus_LM1_298	4.25	3.77	5.68	0.0005551
L_LM1_GM_294	Line	Bus_LM1_300	Bus_LM1_299	4.25	3.77	5.68	0.0005551
L_LM1_GM_296	Line	Bus_LM1_298	Bus_LM1_307	4.25	3.77	5.68	0.0005551
L_LM1_GM_300	Line	Bus_LM1_307	Bus_LM1_306	10.63	9.43	14.21	0.0013876
L_LM1_GM_301	Line	Bus_LM1_305	Bus_LM1_304	10.63	9.43	14.21	0.0013876
L_LM1_GM_302	Line	Bus_LM1_306	Bus_LM1_305	10.63	9.43	14.21	0.0013876
L_LM1_GM_305	Line	Bus_LM1_307	Bus_LM1_309	4.25	3.77	5.68	0.0005551
L_LM1_GM_306	Line	Bus_LM1_309	Bus_LM1_322	4.25	3.77	5.68	0.0005551
L_LM1_GM_309	Line	Bus_LM1_309	Bus_LM1_313	10.63	9.43	14.21	0.0013876
L_LM1_GM_310	Line	Bus_LM1_313	Bus_LM1_312	10.63	9.43	14.21	0.0013876
L_LM1_GM_315	Line	Bus_LM1_319	Bus_LM1_318	10.63	9.43	14.21	0.0013876
L_LM1_GM_316	Line	Bus_LM1_320	Bus_LM1_319	10.63	9.43	14.21	0.0013876
L_LM1_GM_317	Line	Bus_LM1_321	Bus_LM1_320	10.63	9.43	14.21	0.0013876
L_LM1_GM_318	Line	Bus_LM1_322	Bus_LM1_321	10.63	9.43	14.21	0.0013876
L_LM1_GM_323	Line	Bus_LM1_328	Bus_LM1_327	4.25	3.77	5.68	0.0005551
L_LM1_GM_324	Line	Bus_LM1_329	Bus_LM1_328	4.25	3.77	5.68	0.0005551
L_LM1_GM_325	Line	Bus_LM1_330	Bus_LM1_329	4.25	3.77	5.68	0.0005551
L_LM1_GM_326	Line	Bus_LM1_322	Bus_LM1_330	4.25	3.77	5.68	0.0005551
L_LM1_GM_331	Line	Bus_LM1_336	Bus_LM1_335	10.63	9.43	14.21	0.0013876
L_LM1_GM_332	Line	Bus_LM1_337	Bus_LM1_336	10.63	9.43	14.21	0.0013876
L_LM1_GM_333	Line	Bus_LM1_338	Bus_LM1_337	10.63	9.43	14.21	0.0013876
L_LM1_GM_334	Line	Bus_LM1_327	Bus_LM1_338	10.63	9.43	14.21	0.0013876
L_LM1_GM_339	Line	Bus_LM1_335	Bus_LM1_343	10.63	9.43	14.21	0.0013876
L_LM1_GM_340	Line	Bus_LM1_343	Bus_LM1_344	10.63	9.43	14.21	0.0013876
L_LM1_GM_341	Line	Bus_LM1_344	Bus_LM1_346	10.63	9.43	14.21	0.0013876
L_LM1_GM_342	Line	Bus_LM1_375	Bus_LM1_345	4.25	3.77	5.68	0.0005551
L_LM1_GM_351	Line	Bus_LM1_359	Bus_LM1_353	4.25	3.77	5.68	0.0005551
L_LM1_GM_352	Line	Bus_LM1_355	Bus_LM1_354	10.63	9.43	14.21	0.0013876
L_LM1_GM_353	Line	Bus_LM1_356	Bus_LM1_355	10.63	9.43	14.21	0.0013876
L_LM1_GM_354	Line	Bus_LM1_357	Bus_LM1_356	10.63	9.43	14.21	0.0013876
L_LM1_GM_355	Line	Bus_LM1_358	Bus_LM1_357	10.63	9.43	14.21	0.0013876
L_LM1_GM_356	Line	Bus_LM1_327	Bus_LM1_358	10.63	9.43	14.21	0.0013876
L_LM1_GM_357	Line	Bus_LM1_327	Bus_LM1_359	4.25	3.77	5.68	0.0005551
L_LM1_GM_359	Line	Bus_LM1_353	Bus_LM1_361	4.25	3.77	5.68	0.0005551
L_LM1_GM_360	Line	Bus_LM1_361	Bus_LM1_362	4.25	3.77	5.68	0.0005551
L_LM1_GM_361	Line	Bus_LM1_362	Bus_LM1_369	4.25	3.77	5.68	0.0005551
L_LM1_GM_365	Line	Bus_LM1_367	Bus_LM1_366	10.63	9.43	14.21	0.0013876

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LM1_GM_366	Line	Bus_LM1_369	Bus_LM1_367	10.63	9.43	14.21	0.0013876
L_LM1_GM_367	Line	Bus_LM1_369	Bus_LM1_368	10.63	9.43	14.21	0.0013876
L_LM1_GM_372	Line	Bus_LM1_376	Bus_LM1_375	4.25	3.77	5.68	0.0005551
L_LM1_GM_373	Line	Bus_LM1_377	Bus_LM1_376	4.25	3.77	5.68	0.0005551
L_LM1_GM_374	Line	Bus_LM1_369	Bus_LM1_377	4.25	3.77	5.68	0.0005551
L_LM1_GM_376	Line	Bus_LM1_345	Bus_LM1_380	4.25	3.77	5.68	0.0005551
L_LM1_GM_379	Line	Bus_LM1_384	Bus_LM1_383	4.25	3.77	5.68	0.0005551
L_LM1_GM_380	Line	Bus_LM1_380	Bus_LM1_384	4.25	3.77	5.68	0.0005551
L_LM1_GM_381	Line	Bus_LM1_386	Bus_LM1_385	10.63	9.43	14.21	0.0013876
L_LM1_GM_382	Line	Bus_LM1_380	Bus_LM1_386	10.63	9.43	14.21	0.0013876
L_LMT1_GMT1	Line	B_MR6_GMT130	B_LMT1_GMT3	9.18	6.69	11.36	0.0009511
L_LMT1_GMT2	Line	B_LMT1_GMT3	B_LMT1_GMT1	9.18	6.69	11.36	0.0009511
L_LMT1_GMT5	Line	B_LMT1_GMT9	B_LMT1_GMT8	9.18	6.69	11.36	0.0009511
L_LMT1_GMT6	Line	B_LMT1_GMT3	B_LMT1_GMT9	9.18	6.69	11.36	0.0009511
L_LMT1_GMT11	Line	B_LMT1_GMT21	B_LMT1_GMT17	9.18	6.69	11.36	0.0009511
L_LMT1_GMT12	Line	B_LMT1_GMT9	B_LMT1_GMT21	9.18	6.69	11.36	0.0009511
L_LMT1_GMT13	Line	B_LMT1_GMT20	B_LMT1_GMT19	9.18	6.69	11.36	0.0009511
L_LMT1_GMT14	Line	B_LMT1_GMT21	B_LMT1_GMT20	9.18	6.69	11.36	0.0009511
L_LMT1_GMT18	Line	B_LMT1_GMT20	B_LMT1_GMT27	9.18	6.69	11.36	0.0009511
L_LMT1_GMT19	Line	B_LMT1_GMT27	B_LMT1_GMT28	9.18	6.69	11.36	0.0009511
L_LMT1_GMT22	Line	B_LMT1_GMT34	B_LMT1_GMT33	9.18	6.69	11.36	0.0009511
L_LMT1_GMT23	Line	B_LMT1_GMT34	B_LMT1_GMT28	9.18	6.69	11.36	0.0009511
L_LMT1_GMT24	Line	B_LMT1_GMT27	B_LMT1_GMT35	9.18	6.69	11.36	0.0009511
L_LMT1_GMT25	Line	B_LMT1_GMT42	B_LMT1_GMT35	9.18	6.69	11.36	0.0009511
L_LMT1_GMT26	Line	B_LMT1_GMT35	B_LMT1_GMT61	9.18	6.69	11.36	0.0009511
L_LMT1_GMT30	Line	B_LMT1_GMT42	B_LMT1_GMT41	9.18	6.69	11.36	0.0009511
L_LMT1_GMT32	Line	B_LMT1_GMT41	B_LMT1_GMT46	9.18	6.69	11.36	0.0009511
L_LMT1_GMT33	Line	B_LMT1_GMT46	B_LMT1_GMT48	9.18	6.69	11.36	0.0009511
L_LMT1_GMT37	Line	B_LMT1_GMT61	B_LMT1_GMT60	9.18	6.69	11.36	0.0009511
L_LMT1_GMT38	Line	B_LMT1_GMT59	B_LMT1_GMT58	9.18	6.69	11.36	0.0009511
L_LMT1_GMT39	Line	B_LMT1_GMT60	B_LMT1_GMT59	9.18	6.69	11.36	0.0009511
L_LMT1_GMT42	Line	B_LMT1_GMT58	B_LMT1_GMT69	9.18	6.69	11.36	0.0009511
L_LMT1_GMT43	Line	B_LMT1_GMT69	B_LMT1_GMT68	9.18	6.69	11.36	0.0009511
L_LMT1_GMT44	Line	B_MR6_GMT130	B_LMT1_GMT80	9.18	6.69	11.36	0.0009511
L_LMT1_GMT48	Line	B_LMT1_GMT80	B_LMT1_GMT79	9.18	6.69	11.36	0.0009511
L_LMT1_GMT49	Line	B_LMT1_GMT78	B_LMT1_GMT77	9.18	6.69	11.36	0.0009511
L_LMT1_GMT50	Line	B_LMT1_GMT78	B_LMT1_GMT79	9.18	6.69	11.36	0.0009511
L_LMT1_GMT53	Line	B_LMT1_GMT86	B_LMT1_GMT85	9.18	6.69	11.36	0.0009511
L_LMT1_GMT54	Line	B_LMT1_GMT86	B_LMT1_GMT78	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT1_GMT57	Line	B_LMT1_GMT92	B_LMT1_GMT91	9.18	6.69	11.36	0.0009511
L_LMT1_GMT58	Line	B_LMT1_GMT92	B_LMT1_GMT80	9.18	6.69	11.36	0.0009511
L_LMT1_GMT62	Line	B_LMT1_GMT101	B_LMT1_GMT100	9.18	6.69	11.36	0.0009511
L_LMT1_GMT63	Line	B_LMT1_GMT102	B_LMT1_GMT101	9.18	6.69	11.36	0.0009511
L_LMT1_GMT64	Line	B_LMT1_GMT102	B_LMT1_GMT103	9.18	6.69	11.36	0.0009511
L_LMT1_GMT65	Line	B_LMT1_GMT92	B_LMT1_GMT103	9.18	6.69	11.36	0.0009511
L_LMT1_GMT68	Line	B_LMT1_GMT109	B_LMT1_GMT108	9.18	6.69	11.36	0.0009511
L_LMT1_GMT69	Line	B_LMT1_GMT109	B_LMT1_GMT103	9.18	6.69	11.36	0.0009511
L_LMT1_GMT70	Line	B_LMT1_GMT109	B_LMT1_GMT110	9.18	6.69	11.36	0.0009511
L_LMT1_GMT71	Line	B_LMT1_GMT110	B_LMT1_GMT121	9.18	6.69	11.36	0.0009511
L_LMT1_GMT75	Line	B_LMT1_GMT116	B_LMT1_GMT121	9.18	6.69	11.36	0.0009511
L_LMT1_GMT76	Line	B_LMT1_GMT116	B_LMT1_GMT120	9.18	6.69	11.36	0.0009511
L_LMT1_GMT77	Line	B_LMT1_GMT120	B_LMT1_GMT119	9.18	6.69	11.36	0.0009511
L_LMT1_GMT80	Line	B_LMT1_GMT127	B_LMT1_GMT126	9.18	6.69	11.36	0.0009511
L_LMT1_GMT81	Line	B_LMT1_GMT127	B_LMT1_GMT121	9.18	6.69	11.36	0.0009511
L_LMT1_GMT82	Line	B_LMT1_GMT130	B_LMT1_GMT129	9.18	6.69	11.36	0.0009511
L_LMT1_GMT83	Line	B_LMT1_GMT130	B_LMT1_GMT127	9.18	6.69	11.36	0.0009511
L_LMT1_GMT88	Line	B_LMT1_GMT142	B_LMT1_GMT138	9.18	6.69	11.36	0.0009511
L_LMT1_GMT89	Line	B_LMT1_GMT142	B_LMT1_GMT130	9.18	6.69	11.36	0.0009511
L_LMT1_GMT90	Line	B_LMT1_GMT141	B_LMT1_GMT140	9.18	6.69	11.36	0.0009511
L_LMT1_GMT91	Line	B_LMT1_GMT141	B_LMT1_GMT142	9.18	6.69	11.36	0.0009511
L_LMT1_GMT94	Line	B_LMT1_GMT148	B_LMT1_GMT147	9.18	6.69	11.36	0.0009511
L_LMT1_GMT95	Line	B_LMT1_GMT148	B_LMT1_GMT141	9.18	6.69	11.36	0.0009511
L_LMT1_GMT99	Line	B_LMT1_GMT152	B_LMT1_GMT157	9.18	6.69	11.36	0.0009511
L_LMT1_GMT100	Line	B_LMT1_GMT152	B_LMT1_GMT154	9.18	6.69	11.36	0.0009511
L_LMT1_GMT101	Line	B_LMT1_GMT154	B_LMT1_GMT155	9.18	6.69	11.36	0.0009511
L_LMT1_GMT102	Line	B_LMT1_GMT148	B_LMT1_GMT157	9.18	6.69	11.36	0.0009511
L_LMT1_GMT105	Line	B_LMT1_GMT155	B_LMT1_GMT163	9.18	6.69	11.36	0.0009511
L_LMT1_GMT106	Line	B_LMT1_GMT163	B_LMT1_GMT164	9.18	6.69	11.36	0.0009511
L_LMT1_GMT109	Line	B_LMT1_GMT171	B_LMT1_GMT170	9.18	6.69	11.36	0.0009511
L_LMT1_GMT110	Line	B_LMT1_GMT171	B_LMT1_GMT157	9.18	6.69	11.36	0.0009511
L_LMT1_GMT116	Line	B_LMT1_GMT180	B_LMT1_GMT181	9.18	6.69	11.36	0.0009511
L_LMT1_GMT117	Line	B_LMT1_GMT171	B_LMT1_GMT183	9.18	6.69	11.36	0.0009511
L_LMT1_GMT118	Line	B_LMT1_GMT183	B_LMT1_GMT181	9.18	6.69	11.36	0.0009511
L_LMT1_GMT121	Line	B_LMT1_GMT189	B_LMT1_GMT188	9.18	6.69	11.36	0.0009511
L_LMT1_GMT122	Line	B_LMT1_GMT189	B_LMT1_GMT183	9.18	6.69	11.36	0.0009511
L_LMT1_GMT123	Line	B_LMT1_GMT192	B_LMT1_GMT191	9.18	6.69	11.36	0.0009511
L_LMT1_GMT124	Line	B_LMT1_GMT192	B_LMT1_GMT189	9.18	6.69	11.36	0.0009511
L_LMT1_GMT125	Line	B_LMT1_GMT195	B_LMT1_GMT194	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT1_GMT126	Line	B_LMT1_GMT195	B_LMT1_GMT192	9.18	6.69	11.36	0.0009511
L_LMT1_GMT130	Line	B_LMT1_GMT199	B_LMT1_GMT110	9.18	6.69	11.36	0.0009511
L_LMT1_GMT131	Line	B_LMT1_GMT199	B_LMT1_GMT201	9.18	6.69	11.36	0.0009511
L_LMT1_GMT132	Line	B_LMT1_GMT201	B_LMT1_GMT202	9.18	6.69	11.36	0.0009511
L_LMT1_GMT135	Line	B_LMT1_GMT209	B_LMT1_GMT208	9.18	6.69	11.36	0.0009511
L_LMT1_GMT136	Line	B_LMT1_GMT209	B_LMT1_GMT110	9.18	6.69	11.36	0.0009511
L_LMT1_GMT140	Line	B_LMT1_GMT215	B_LMT1_GMT209	9.18	6.69	11.36	0.0009511
L_LMT1_GMT142	Line	B_LMT1_GMT219	B_LMT1_GMT215	9.18	6.69	11.36	0.0009511
L_LMT1_GMT145	Line	B_LMT1_GMT225	B_LMT1_GMT224	9.18	6.69	11.36	0.0009511
L_LMT1_GMT146	Line	B_LMT1_GMT225	B_LMT1_GMT219	9.18	6.69	11.36	0.0009511
L_LMT1_GMT147	Line	B_LMT1_GMT228	B_LMT1_GMT227	9.18	6.69	11.36	0.0009511
L_LMT1_GMT148	Line	B_LMT1_GMT228	B_LMT1_GMT225	9.18	6.69	11.36	0.0009511
L_LMT1_GMT152	Line	B_LMT1_GMT238	B_LMT1_GMT228	9.18	6.69	11.36	0.0009511
L_LMT1_GMT153	Line	B_LMT1_GMT237	B_LMT1_GMT238	9.18	6.69	11.36	0.0009511
L_LMT1_GMT156	Line	B_LMT1_GMT245	B_LMT1_GMT237	9.18	6.69	11.36	0.0009511
L_LMT1_GMT157	Line	B_LMT1_GMT244	B_LMT1_GMT245	9.18	6.69	11.36	0.0009511
L_LMT1_GMT160	Line	B_LMT1_GMT252	B_LMT1_GMT251	9.18	6.69	11.36	0.0009511
L_LMT1_GMT161	Line	B_LMT1_GMT252	B_LMT1_GMT244	9.18	6.69	11.36	0.0009511
L_LMT1_GMT162	Line	B_LMT1_GMT255	B_LMT1_GMT254	9.18	6.69	11.36	0.0009511
L_LMT1_GMT163	Line	B_LMT1_GMT255	B_LMT1_GMT252	9.18	6.69	11.36	0.0009511
L_LMT2_GMT1	Line	B_LMT2_1	B_LMT2_GMT1	9.18	6.69	11.36	0.0009511
L_LMT2_GMT2	Line	B_LMT2_GMT1	B_LMT2_GMT3	9.18	6.69	11.36	0.0009511
L_LMT2_GMT4	Line	B_LMT2_GMT3	B_LMT2_GMT7	9.18	6.69	11.36	0.0009511
L_LMT2_GMT6	Line	B_LMT2_GMT7	B_LMT2_GMT11	9.18	6.69	11.36	0.0009511
L_LMT2_GMT7	Line	B_LMT2_GMT11	B_LMT2_GMT12	9.18	6.69	11.36	0.0009511
L_LMT2_GMT10	Line	B_LMT2_GMT11	B_LMT2_GMT16	9.18	6.69	11.36	0.0009511
L_LMT2_GMT11	Line	B_LMT2_GMT16	B_LMT2_GMT18	9.18	6.69	11.36	0.0009511
L_LMT2_GMT14	Line	B_LMT2_GMT16	B_LMT2_GMT26	9.18	6.69	11.36	0.0009511
L_LMT2_GMT15	Line	B_LMT2_GMT26	B_LMT2_GMT25	9.18	6.69	11.36	0.0009511
L_LMT2_GMT16	Line	B_LMT2_GMT25	B_LMT2_GMT30	9.18	6.69	11.36	0.0009511
L_LMT2_GMT17	Line	B_LMT2_GMT30	B_LMT2_GMT29	9.18	6.69	11.36	0.0009511
L_LMT2_GMT18	Line	B_LMT2_GMT29	B_LMT2_GMT35	9.18	6.69	11.36	0.0009511
L_LMT2_GMT20	Line	B_LMT2_GMT35	B_LMT2_GMT34	9.18	6.69	11.36	0.0009511
L_LMT2_GMT23	Line	B_LMT2_GMT34	B_LMT2_GMT39	9.18	6.69	11.36	0.0009511
L_LMT2_GMT24	Line	B_LMT2_GMT39	B_LMT2_GMT41	9.18	6.69	11.36	0.0009511
L_LMT2_GMT26	Line	B_LMT2_GMT39	B_LMT2_GMT45	9.18	6.69	11.36	0.0009511
L_LMT2_GMT27	Line	B_LMT2_GMT45	B_LMT2_GMT47	9.18	6.69	11.36	0.0009511
L_LMT2_GMT30	Line	B_LMT2_GMT47	B_LMT2_GMT55	9.18	6.69	11.36	0.0009511
L_LMT2_GMT31	Line	B_LMT2_GMT55	B_LMT2_GMT54	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT2_GMT34	Line	B_LMT2_GMT54	B_LMT2_GMT59	9.18	6.69	11.36	0.0009511
L_LMT2_GMT35	Line	B_LMT2_GMT59	B_LMT2_GMT61	9.18	6.69	11.36	0.0009511
L_LMT2_GMT38	Line	B_LMT2_GMT59	B_LMT2_GMT67	9.18	6.69	11.36	0.0009511
L_LMT2_GMT39	Line	B_LMT2_GMT67	B_LMT2_GMT69	9.18	6.69	11.36	0.0009511
L_LMT2_GMT40	Line	B_LMT2_GMT69	B_LMT2_GMT70	9.18	6.69	11.36	0.0009511
L_LMT2_GMT41	Line	B_LMT2_GMT70	B_LMT2_GMT71	9.18	6.69	11.36	0.0009511
L_LMT2_GMT44	Line	B_LMT2_GMT71	B_LMT2_GMT75	9.18	6.69	11.36	0.0009511
L_LMT2_GMT45	Line	B_LMT2_GMT75	B_LMT2_GMT77	9.18	6.69	11.36	0.0009511
L_LMT2_GMT48	Line	B_LMT2_GMT75	B_LMT2_GMT81	9.18	6.69	11.36	0.0009511
L_LMT2_GMT49	Line	B_LMT2_GMT81	B_LMT2_GMT83	9.18	6.69	11.36	0.0009511
L_LMT2_GMT54	Line	B_LMT2_GMT81	B_LMT2_GMT93	9.18	6.69	11.36	0.0009511
L_LMT2_GMT55	Line	B_LMT2_GMT92	B_LMT2_GMT91	9.18	6.69	11.36	0.0009511
L_LMT2_GMT56	Line	B_LMT2_GMT93	B_LMT2_GMT92	9.18	6.69	11.36	0.0009511
L_LMT2_GMT57	Line	B_LMT2_GMT93	B_LMT2_GMT95	9.18	6.69	11.36	0.0009511
L_LMT2_GMT66	Line	B_LMT2_GMT92	B_LMT2_GMT117	9.18	6.69	11.36	0.0009511
L_LMT2_GMT67	Line	B_LMT2_GMT116	B_LMT2_GMT109	9.18	6.69	11.36	0.0009511
L_LMT2_GMT68	Line	B_LMT2_GMT115	B_LMT2_GMT111	9.18	6.69	11.36	0.0009511
L_LMT2_GMT69	Line	B_LMT2_GMT114	B_LMT2_GMT113	9.18	6.69	11.36	0.0009511
L_LMT2_GMT70	Line	B_LMT2_GMT115	B_LMT2_GMT114	9.18	6.69	11.36	0.0009511
L_LMT2_GMT71	Line	B_LMT2_GMT116	B_LMT2_GMT115	9.18	6.69	11.36	0.0009511
L_LMT2_GMT72	Line	B_LMT2_GMT117	B_LMT2_GMT116	9.18	6.69	11.36	0.0009511
L_LMT2_GMT73	Line	B_LMT2_GMT117	B_LMT2_GMT119	9.18	6.69	11.36	0.0009511
L_LMT2_GMT76	Line	B_LMT2_GMT125	B_LMT2_GMT124	9.18	6.69	11.36	0.0009511
L_LMT2_GMT77	Line	B_LMT2_GMT114	B_LMT2_GMT125	9.18	6.69	11.36	0.0009511
L_LMT2_GMT80	Line	B_LMT2_GMT70	B_LMT2_GMT131	9.18	6.69	11.36	0.0009511
L_LMT2_GMT81	Line	B_LMT2_GMT131	B_LMT2_GMT133	9.18	6.69	11.36	0.0009511
L_LMT2_GMT88	Line	B_LMT2_GMT133	B_LMT2_GMT145	9.18	6.69	11.36	0.0009511
L_LMT2_GMT89	Line	B_LMT2_GMT145	B_LMT2_GMT147	9.18	6.69	11.36	0.0009511
L_LMT2_GMT92	Line	B_LMT2_GMT145	B_LMT2_GMT153	9.18	6.69	11.36	0.0009511
L_LMT2_GMT93	Line	B_LMT2_GMT153	B_LMT2_GMT155	9.18	6.69	11.36	0.0009511
L_LMT2_GMT95	Line	B_LMT2_GMT155	B_LMT2_GMT159	9.18	6.69	11.36	0.0009511
L_LMT2_GMT96	Line	B_LMT2_GMT159	B_LMT2_GMT161	9.18	6.69	11.36	0.0009511
L_LMT2_GMT97	Line	B_LMT2_GMT161	B_LMT2_GMT160	9.18	6.69	11.36	0.0009511
L_LMT2_GMT98	Line	B_LMT2_GMT161	B_LMT2_GMT168	9.18	6.69	11.36	0.0009511
L_LMT2_GMT101	Line	B_LMT2_GMT167	B_LMT2_GMT166	9.18	6.69	11.36	0.0009511
L_LMT2_GMT102	Line	B_LMT2_GMT168	B_LMT2_GMT167	9.18	6.69	11.36	0.0009511
L_LMT2_GMT107	Line	B_LMT2_GMT180	B_LMT2_GMT176	9.18	6.69	11.36	0.0009511
L_LMT2_GMT108	Line	B_LMT2_GMT179	B_LMT2_GMT178	9.18	6.69	11.36	0.0009511
L_LMT2_GMT109	Line	B_LMT2_GMT180	B_LMT2_GMT179	9.18	6.69	11.36	0.0009511

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LMT2_GMT110	Line	B_LMT2_GMT181	B_LMT2_GMT180	9.18	6.69	11.36	0.0009511
L_LMT2_GMT111	Line	B_LMT2_GMT167	B_LMT2_GMT181	9.18	6.69	11.36	0.0009511
L_LMT2_GMT116	Line	B_LMT2_GMT193	B_LMT2_GMT189	9.18	6.69	11.36	0.0009511
L_LMT2_GMT117	Line	B_LMT2_GMT192	B_LMT2_GMT191	9.18	6.69	11.36	0.0009511
L_LMT2_GMT118	Line	B_LMT2_GMT193	B_LMT2_GMT192	9.18	6.69	11.36	0.0009511
L_LMT2_GMT119	Line	B_LMT2_GMT181	B_LMT2_GMT193	9.18	6.69	11.36	0.0009511
L_LMT2_GMT120	Line	B_LMT2_GMT199	B_LMT2_GMT195	9.18	6.69	11.36	0.0009511
L_LMT2_GMT121	Line	B_LMT2_GMT198	B_LMT2_GMT197	9.18	6.69	11.36	0.0009511
L_LMT2_GMT122	Line	B_LMT2_GMT199	B_LMT2_GMT198	9.18	6.69	11.36	0.0009511
L_LMT2_GMT123	Line	B_LMT2_GMT192	B_LMT2_GMT199	9.18	6.69	11.36	0.0009511
L_LMT2_GMT126	Line	B_LMT2_GMT205	B_LMT2_GMT204	9.18	6.69	11.36	0.0009511
L_LMT2_GMT127	Line	B_LMT2_GMT198	B_LMT2_GMT205	9.18	6.69	11.36	0.0009511
L_LMT2_GMT128	Line	B_LMT2_GMT208	B_LMT2_GMT207	9.18	6.69	11.36	0.0009511
L_LMT2_GMT129	Line	B_LMT2_GMT205	B_LMT2_GMT208	9.18	6.69	11.36	0.0009511
L_LMT2_GMT134	Line	B_LMT2_GMT221	B_LMT2_GMT218	9.18	6.69	11.36	0.0009511
L_LMT2_GMT135	Line	B_LMT2_GMT217	B_LMT2_GMT216	9.18	6.69	11.36	0.0009511
L_LMT2_GMT136	Line	B_LMT2_GMT218	B_LMT2_GMT217	9.18	6.69	11.36	0.0009511
L_LMT2_GMT137	Line	B_LMT2_GMT218	B_LMT2_GMT220	9.18	6.69	11.36	0.0009511
L_LMT2_GMT139	Line	B_LMT2_GMT208	B_LMT2_GMT221	9.18	6.69	11.36	0.0009511
L_LMT2_GMT144	Line	B_LMT2_GMT233	B_LMT2_GMT229	9.18	6.69	11.36	0.0009511
L_LMT2_GMT145	Line	B_LMT2_GMT232	B_LMT2_GMT231	9.18	6.69	11.36	0.0009511
L_LMT2_GMT146	Line	B_LMT2_GMT233	B_LMT2_GMT232	9.18	6.69	11.36	0.0009511
L_LMT2_GMT147	Line	B_LMT2_GMT221	B_LMT2_GMT233	9.18	6.69	11.36	0.0009511
L_LMT2_GMT154	Line	B_LMT2_GMT251	B_LMT2_GMT244	9.18	6.69	11.36	0.0009511
L_LMT2_GMT155	Line	B_LMT2_GMT250	B_LMT2_GMT246	9.18	6.69	11.36	0.0009511
L_LMT2_GMT156	Line	B_LMT2_GMT249	B_LMT2_GMT248	9.18	6.69	11.36	0.0009511
L_LMT2_GMT157	Line	B_LMT2_GMT250	B_LMT2_GMT249	9.18	6.69	11.36	0.0009511
L_LMT2_GMT158	Line	B_LMT2_GMT251	B_LMT2_GMT250	9.18	6.69	11.36	0.0009511
L_LMT2_GMT159	Line	B_LMT2_GMT221	B_LMT2_GMT251	9.18	6.69	11.36	0.0009511
L_LMT2_GMT163	Line	B_LMT2_GMT249	B_LMT2_GMT259	9.18	6.69	11.36	0.0009511
L_LMT2_GMT164	Line	B_LMT2_GMT263	B_LMT2_GMT262	9.18	6.69	11.36	0.0009511
L_LMT2_GMT165	Line	B_LMT2_GMT259	B_LMT2_GMT263	9.18	6.69	11.36	0.0009511
L_LY02_01-3	Line	B_MR04_GM	B_MR04_GM1	5.32	4.71	7.10	0.0006937
L_LY02_2-3	Line	B_MR04_GM1	B_MR04_GM2	5.32	4.71	7.10	0.0006937
L_LY02_3-3	Line	B_MR04_GM	B_MR04_GM3	3.14	4.49	5.48	0.0007322
L_LY02_4-3	Line	B_MR04_GM4	B_MR04_GM5	5.32	4.71	7.10	0.0006937
L_LY02_6-3	Line	B_MR04_GM3	B_MR04_GM4	5.32	4.71	7.10	0.0006937
L_LY02_8-3	Line	B_MR04_GM3	B_MR04_GM6	5.32	4.71	7.10	0.0006937
L_LY02_9-3	Line	B_MR04_GM6	B_MR04_GM7	5.32	4.71	7.10	0.0006937

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LY02_11-3	Line	B_MR04_GM7	B_MR04_GM8	5.32	4.71	7.10	0.0006937
L_LY02_12-3	Line	B_MR04_GM8	B_MR04_GM9	5.32	4.71	7.10	0.0006937
L_LY02_14-3	Line	B_MR04_GM9	B_MR04_GM10	5.32	4.71	7.10	0.0006937
L_LY02_15-3	Line	B_MR04_GM10	B_MR04_GM11	5.32	4.71	7.10	0.0006937
L_LY02_16-3	Line	B_MR04_GM22	B_MR04_GM13	5.32	4.71	7.10	0.0006937
L_LY02_18-3	Line	B_MR04_GM11	B_MR04_GM12	5.32	4.71	7.10	0.0006937
L_LY02_19-3	Line	B_MR04_GM13	B_MR04_GM14	5.32	4.71	7.10	0.0006937
L_LY02_21-3	Line	B_MR04_GM16	B_MR04_GM15	5.32	4.71	7.10	0.0006937
L_LY02_23-3	Line	B_MR04_GM22	B_MR04_GM16	5.32	4.71	7.10	0.0006937
L_LY02_24-3	Line	B_MR04_GM16	B_MR04_GM17	5.32	4.71	7.10	0.0006937
L_LY02_26-3	Line	B_MR04_GM17	B_MR04_GM18	5.32	4.71	7.10	0.0006937
L_LY02_27-3	Line	B_MR04_GM22	B_MR04_GM19	5.32	4.71	7.10	0.0006937
L_LY02_29-3	Line	B_MR04_GM19	B_MR04_GM20	5.32	4.71	7.10	0.0006937
L_LY02_30-3	Line	B_MR04_GM20	B_MR04_GM21	5.32	4.71	7.10	0.0006937
L_LY02_32-3	Line	B_MR04_GM23	B_MR04_GM22	5.32	4.71	7.10	0.0006937
L_LY02_33-3	Line	B_MR04_GM25	B_MR04_GM23	5.32	4.71	7.10	0.0006937
L_LY02_35-3	Line	B_MR04_GM32	B_MR04_GM24	5.32	4.71	7.10	0.0006937
L_LY02_37-3	Line	B_MR04_GM24	B_MR04_GM25	5.32	4.71	7.10	0.0006937
L_LY02_38-3	Line	B_MR04_GM12	B_MR04_GM26	5.32	4.71	7.10	0.0006937
L_LY02_40-3	Line	B_MR04_GM26	B_MR04_GM27	5.32	4.71	7.10	0.0006937
L_LY02_41-3	Line	B_MR04_GM27	B_MR04_GM28	5.32	4.71	7.10	0.0006937
L_LY02_43-3	Line	B_MR04_GM28	B_MR04_GM29	5.32	4.71	7.10	0.0006937
L_LY02_44-3	Line	B_MR04_GM29	B_MR04_GM30	5.32	4.71	7.10	0.0006937
L_LY02_45-3	Line	B_MR04_GM31	B_MR04_GM32	5.32	4.71	7.10	0.0006937
L_LY02_47-3	Line	B_MR04_GM30	B_MR04_GM31	5.32	4.71	7.10	0.0006937
L_LY02_48-3	Line	B_MR04_GM31	B_MR04_GM33	5.32	4.71	7.10	0.0006937
L_LY02_50-3	Line	B_MR04_GM33	B_MR04_GM34	5.32	4.71	7.10	0.0006937
L_LY02_51-3	Line	B_MR04_GM34	B_MR04_GM35	5.32	4.71	7.10	0.0006937
L_LY02_53-3	Line	B_MR04_GM35	B_MR04_GM36	5.32	4.71	7.10	0.0006937
L_LY02_54-3	Line	B_MR04_GM36	B_MR04_GM37	5.32	4.71	7.10	0.0006937
L_LY02_56-3	Line	B_MR04_GM39	B_MR04_GM38	5.32	4.71	7.10	0.0006937
L_LY02_57-3	Line	B_MR04_GM35	B_MR04_GM39	5.32	4.71	7.10	0.0006937
L_LY02_59-3	Line	B_MR04_GM27	B_MR04_GM40	5.32	4.71	7.10	0.0006937
L_LY02_60-3	Line	B_MR04_GM40	B_MR04_GM41	5.32	4.71	7.10	0.0006937
L_LY02_62-3	Line	B_MR04_GM41	B_MR04_GM42	5.32	4.71	7.10	0.0006937
L_LY02_63-3	Line	B_MR04_GM42	B_MR04_GM43	5.32	4.71	7.10	0.0006937
L_LY02_65-3	Line	B_MR04_GM41	B_MR04_GM44	5.32	4.71	7.10	0.0006937
L_LY02_66-3	Line	B_MR04_GM44	B_MR04_GM45	5.32	4.71	7.10	0.0006937
L_LY02_68-3	Line	B_MR04_GM45	B_MR04_GM46	5.32	4.71	7.10	0.0006937

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_LY02_69-3	Line	B_MR04_GM46	B_MR04_GM47	5.32	4.71	7.10	0.0006937
L_LY02_71-3	Line	B_MR04_GM15	B_MR04_GM48	5.32	4.71	7.10	0.0006937
L_LY02_72-3	Line	B_MR04_GM14	B_MR04_GM49	5.32	4.71	7.10	0.0006937
L_MR1_GMP_1	Line	Bus_MR1_GMP94	Bus_MR1_GMP2	13.12	9.56	16.23	0.0013590
L_MR1_GMP_3	Line	Bus_MR1_GMP92	Bus_MR1_GMP6	13.12	9.56	16.23	0.0013590
L_MR1_GMP_4	Line	Bus_MR1_GMP6	Bus_MR1_GMP8	13.12	9.56	16.23	0.0013590
L_MR1_GMP_5	Line	Bus_MR1_GMP8	Bus_MR1_GMP10	13.12	9.56	16.23	0.0013590
L_MR1_GMP_6	Line	Bus_MR1_GMP10	Bus_MR1_GMP12	13.12	9.56	16.23	0.0013590
L_MR1_GMP_7	Line	Bus_MR1_GMP12	Bus_MR1_GMP14	13.12	9.56	16.23	0.0013590
L_MR1_GMP_8	Line	Bus_MR1_GMP14	Bus_MR1_GMP16	13.12	9.56	16.23	0.0013590
L_MR1_GMP_9	Line	Bus_MR1_GMP16	Bus_MR1_GMP18	13.12	9.56	16.23	0.0013590
L_MR1_GMP_10	Line	Bus_MR1_GMP18	Bus_MR1_GMP20	13.12	9.56	16.23	0.0013590
L_MR1_GMP_11	Line	Bus_MR1_GMP20	Bus_MR1_GMP22	13.12	9.56	16.23	0.0013590
L_MR1_GMP_12	Line	Bus_MR1_GMP22	Bus_MR1_GMP24	13.12	9.56	16.23	0.0013590
L_MR1_GMP_13	Line	Bus_MR1_GMP24	Bus_MR1_GMP26	13.12	9.56	16.23	0.0013590
L_MR1_GMP_14	Line	Bus_MR1_GMP26	Bus_MR1_GMP28	13.12	9.56	16.23	0.0013590
L_MR1_GMP_15	Line	Bus_MR1_GMP28	Bus_MR1_GMP30	13.12	9.56	16.23	0.0013590
L_MR1_GMP_16	Line	Bus_MR1_GMP28	Bus_MR1_GMP32	13.12	9.56	16.23	0.0013590
L_MR1_GMP_17	Line	Bus_MR1_GMP32	Bus_MR1_GMP34	13.12	9.56	16.23	0.0013590
L_MR1_GMP_18	Line	Bus_MR1_GMP34	Bus_MR1_GMP36	13.12	9.56	16.23	0.0013590
L_MR1_GMP_19	Line	Bus_MR1_GMP36	Bus_MR1_GMP38	13.12	9.56	16.23	0.0013590
L_MR1_GMP_21	Line	Bus_MR1_GMP86	Bus_MR1_GMP43	13.12	9.56	16.23	0.0013590
L_MR1_GMP_22	Line	Bus_MR1_GMP43	Bus_MR1_GMP45	13.12	9.56	16.23	0.0013590
L_MR1_GMP_23	Line	Bus_MR1_GMP45	Bus_MR1_GMP47	13.12	9.56	16.23	0.0013590
L_MR1_GMP_24	Line	Bus_MR1_GMP38	Bus_MR1_GMP49	13.12	9.56	16.23	0.0013590
L_MR1_GMP_25	Line	Bus_MR1_GMP49	Bus_MR1_GMP51	13.12	9.56	16.23	0.0013590
L_MR1_GMP_26	Line	Bus_MR1_GMP51	Bus_MR1_GMP53	13.12	9.56	16.23	0.0013590
L_MR1_GMP_27	Line	Bus_MR1_GMP24	Bus_MR1_GMP55	10.63	9.43	14.21	0.0013876
L_MR1_GMP_28	Line	Bus_MR1_GMP55	Bus_MR1_GMP57	13.12	9.56	16.23	0.0013590
L_MR1_GMP_29	Line	Bus_MR1_GMP55	Bus_MR1_GMP59	13.12	9.56	16.23	0.0013590
L_MR1_GMP_30	Line	Bus_MR1_GMP55	Bus_MR1_GMP61	13.12	9.56	16.23	0.0013590
L_MR1_GMP_31	Line	Bus_MR1_GMP55	Bus_MR1_GMP63	13.12	9.56	16.23	0.0013590
L_MR1_GMP_32	Line	Bus_MR1_GMP55	Bus_MR1_GMP65	13.12	9.56	16.23	0.0013590
L_MR1_GMP_34	Line	Bus_MR1_GMP97	Bus_MR1_GMP72	13.12	9.56	16.23	0.0013590
L_MR1_GMP_35	Line	Bus_MR1_GMP72	Bus_MR1_GMP74	13.12	9.56	16.23	0.0013590
L_MR1_GMP_36	Line	Bus_MR1_GMP74	Bus_MR1_GMP76	13.12	9.56	16.23	0.0013590
L_MR1_GMP_37	Line	Bus_MR1_GMP76	Bus_MR1_GMP78	13.12	9.56	16.23	0.0013590
L_MR1_GMP_38	Line	Bus_MR1_GMP78	Bus_MR1_GMP80	13.12	9.56	16.23	0.0013590
L_MR1_GMP_39	Line	Bus_MR1_GMP80	Bus_MR1_GMP82	13.12	9.56	16.23	0.0013590

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_MR1_GMP_41	Line	Bus_MR1_GMP38	Bus_MR1_GMP86	13.12	9.56	16.23	0.0013590
L_MR1_GMP_43	Line	Bus_MR1_GMP2	Bus_MR1_GMP92	13.12	9.56	16.23	0.0013590
L_MR1_GMP_45	Line	Bus_MR1_GMP55	Bus_MR1_GMP97	13.12	9.56	16.23	0.0013590
L_MR6_GMP1	Line	B_MR6_GMP1	B_MR6_GMP4	13.48	19.11	23.38	0.0029094
L_MR6_GMP2	Line	B_MR6_GMP4	B_MR6_GMP7	13.48	19.11	23.38	0.0029094
L_MR6_GMP4	Line	B_MR6_GMP7	B_MR6_GMP11	13.48	19.11	23.38	0.0029094
L_MR6_GMP5	Line	B_MR6_GMP11	B_MR6_GMP13	13.48	19.11	23.38	0.0029094
L_MR6_GMP6	Line	B_MR6_GMP13	B_MR6_GMP15	13.48	19.11	23.38	0.0029094
L_MR6_GMP7	Line	B_MR6_GMP15	B_MR6_GMP16	13.48	19.11	23.38	0.0029094
L_MR6_GMP9	Line	B_MR6_GMP16	B_MR6_GMP19	9.18	6.69	11.36	0.0009511
L_MR6_GMP10	Line	B_MR6_GMP19	B_MR6_GMP21	9.18	6.69	11.36	0.0009511
L_MR6_GMP12	Line	B_MR6_GMP19	B_MR6_GMP25	9.18	6.69	11.36	0.0009511
L_MR6_GMP13	Line	B_MR6_GMP25	B_MR6_GMP26	9.18	6.69	11.36	0.0009511
L_MR6_GMP16	Line	B_MR6_GMP25	B_MR6_GMP30	9.18	6.69	11.36	0.0009511
L_MR6_GMP17	Line	B_MR6_GMP30	B_MR6_GMP32	9.18	6.69	11.36	0.0009511
L_MR6_GMP19	Line	B_MR6_GMP30	B_MR6_GMP36	9.18	6.69	11.36	0.0009511
L_MR6_GMP20	Line	B_MR6_GMP37	B_MR6_GMP16	9.18	6.69	11.36	0.0009511
L_MR6_GMP21	Line	B_MR6_GMP46	B_MR6_GMP37	9.18	6.69	11.36	0.0009511
L_MR6_GMP24	Line	B_MR6_GMP44	B_MR6_GMP46	9.18	6.69	11.36	0.0009511
L_MR6_GMP25	Line	B_MR6_GMP45	B_MR6_GMP44	9.18	6.69	11.36	0.0009511
L_MR6_GMP26	Line	B_MR6_GMP55	B_MR6_GMP37	9.18	6.69	11.36	0.0009511
L_MR6_GMP29	Line	B_MR6_GMP55	B_MR6_GMP54	9.18	6.69	11.36	0.0009511
L_MR6_GMP30	Line	B_MR6_GMP54	B_MR6_GMP53	9.18	6.69	11.36	0.0009511
L_MR6_GMP32	Line	B_MR6_GMP53	B_MR6_GMP59	9.18	6.69	11.36	0.0009511
L_MR6_GMP33	Line	B_MR6_GMP16	B_MR6_GMP66	13.48	19.11	23.38	0.0029094
L_MR6_GMP35	Line	B_MR6_GMP66	B_MR6_GMP63	9.18	6.69	11.36	0.0009511
L_MR6_GMP36	Line	B_MR6_GMP63	B_MR6_GMP65	9.18	6.69	11.36	0.0009511
L_MR6_GMP38	Line	B_MR6_GMP66	B_MR6_GMP70	13.48	19.11	23.38	0.0029094
L_MR6_GMP39	Line	B_MR6_GMP70	B_MR6_GMP72	13.48	19.11	23.38	0.0029094
L_MR6_GMP40	Line	B_MR6_GMP72	B_MR6_GMP73	9.18	6.69	11.36	0.0009511
L_MR6_GMP42	Line	B_MR6_GMP72	B_MR6_GMP77	13.48	19.11	23.38	0.0029094
L_MR6_GMP43	Line	B_MR6_GMP77	B_MR6_GMP79	13.48	19.11	23.38	0.0029094
L_MR6_GMP44	Line	B_MR6_GMP79	B_MR6_GMP81	13.48	19.11	23.38	0.0029094
L_MR6_GMP45	Line	B_MR6_GMP81	B_MR6_GMP2	13.48	19.11	23.38	0.0029094
L_MR6_GMT1	Line	B_MR6_GMP82	B_MR6_GMT2	3.19	2.83	4.26	0.0004162
L_MR6_GMT2	Line	B_MR6_GMT2	B_MR6_GMT3	9.18	6.69	11.36	0.0009511
L_MR6_GMT5	Line	B_MR6_GMT2	B_MR6_GMT7	3.19	2.83	4.26	0.0004162
L_MR6_GMT6	Line	B_MR6_GMT7	B_MR6_GMT9	9.18	6.69	11.36	0.0009511
L_MR6_GMT9	Line	B_MR6_GMT7	B_MR6_GMT13	3.19	2.83	4.26	0.0004162

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
L_MR6_GMT12	Line	B_MR6_GMT13	B_MR6_GMT19	3.19	2.83	4.26	0.0004162
L_MR6_GMT13	Line	B_MR6_GMT19	B_MR6_GMT21	3.19	2.83	4.26	0.0004162
L_MR6_GMT16	Line	B_MR6_GMT21	B_MR6_GMT25	3.19	2.83	4.26	0.0004162
L_MR6_GMT17	Line	B_MR6_GMT25	B_MR6_GMT27	9.18	6.69	11.36	0.0009511
L_MR6_GMT19	Line	B_MR6_GMT25	B_MR6_GMT30	3.19	2.83	4.26	0.0004162
L_MR6_GMT22	Line	B_MR6_GMT30	B_MR6_GMT35	3.19	2.83	4.26	0.0004162
L_MR6_GMT23	Line	B_MR6_GMT35	B_MR6_GMT37	9.18	6.69	11.36	0.0009511
L_MR6_GMT24	Line	B_MR6_GMT38	B_MR6_GMT35	9.18	6.69	11.36	0.0009511
L_MR6_GMT29	Line	B_MR6_GMT47	B_MR6_GMT38	9.18	6.69	11.36	0.0009511
L_MR6_GMT30	Line	B_MR6_GMT48	B_MR6_GMT47	9.18	6.69	11.36	0.0009511
L_MR6_GMT31	Line	B_MR6_GMT55	B_MR6_GMT38	9.18	6.69	11.36	0.0009511
L_MR6_GMT34	Line	B_MR6_GMT55	B_MR6_GMT52	9.18	6.69	11.36	0.0009511
L_MR6_GMT35	Line	B_MR6_GMT52	B_MR6_GMT54	9.18	6.69	11.36	0.0009511
L_MR6_GMT37	Line	B_MR6_GMT52	B_MR6_GMT59	9.18	6.69	11.36	0.0009511
L_MR6_GMT38	Line	B_MR6_GMT59	B_MR6_GMT61	9.18	6.69	11.36	0.0009511
L_MR6_GMT39	Line	B_MR6_GMT35	B_MR6_GMT63	3.19	2.83	4.26	0.0004162
L_MR6_GMT40	Line	B_MR6_GMT63	B_MR6_GMT65	3.19	2.83	4.26	0.0004162
L_MR6_GMT43	Line	B_MR6_GMT65	B_MR6_GMT73	3.19	2.83	4.26	0.0004162
L_MR6_GMT44	Line	B_MR6_GMT73	B_MR6_GMT72	3.19	2.83	4.26	0.0004162
L_MR6_GMT45	Line	B_MR6_GMT72	B_MR6_GMT77	3.19	2.83	4.26	0.0004162
L_MR6_GMT46	Line	B_MR6_GMT77	B_MR6_GMT76	3.19	2.83	4.26	0.0004162
L_MR6_GMT48	Line	B_MR6_GMT76	B_MR6_GMT81	3.19	2.83	4.26	0.0004162
L_MR6_GMT49	Line	B_MR6_GMT81	B_MR6_GMT83	5.25	3.82	6.49	0.0005435
L_MR6_GMT50	Line	B_MR6_GMT83	B_MR6_GMT84	9.18	6.69	11.36	0.0009511
L_MR6_GMT52	Line	B_MR6_GMT83	B_MR6_GMT88	5.25	3.82	6.49	0.0005435
L_MR6_GMT54	Line	B_MR6_GMT88	B_MR6_GMT92	5.25	3.82	6.49	0.0005435
L_MR6_GMT57	Line	B_MR6_GMT92	B_MR6_GMT97	5.25	3.82	6.49	0.0005435
L_MR6_GMT58	Line	B_MR6_GMT97	B_MR6_GMT98	9.18	6.69	11.36	0.0009511
L_MR6_GMT59	Line	B_MR6_GMT98	B_MR6_GMT99	9.18	6.69	11.36	0.0009511
L_MR6_GMT61	Line	B_MR6_GMT98	B_MR6_GMT103	9.18	6.69	11.36	0.0009511
L_MR6_GMT65	Line	B_MR6_GMT97	B_MR6_GMT111	5.25	3.82	6.49	0.0005435
L_MR6_GMT66	Line	B_MR6_GMT111	B_MR6_GMT112	5.25	3.82	6.49	0.0005435
L_MR6_GMT67	Line	B_MR6_GMT112	B_MR6_GMT113	9.18	6.69	11.36	0.0009511
L_MR6_GMT69	Line	B_MR6_GMT112	B_MR6_GMT117	5.25	3.82	6.49	0.0005435
L_MR6_GMT70	Line	B_MR6_GMT117	B_MR6_GMT128	3.93	2.87	4.87	0.0004076
L_MR6_GMT74	Line	B_MR6_GMT128	B_MR6_GMT125	9.18	6.69	11.36	0.0009511
L_MR6_GMT75	Line	B_MR6_GMT125	B_MR6_GMT124	9.18	6.69	11.36	0.0009511
L_MR6_GMT76	Line	B_MR6_GMT125	B_MR6_GMT127	9.18	6.69	11.36	0.0009511
L_MR6_GMT77	Line	B_MR6_GMT128	MR6 V UJUNG2	39.34	28.66	48.68	0.0040760

CKT/Branch		Connected Bus ID		% Impedance, Pos. Seq., 100 MVA Base			
ID	Type	From Bus	To Bus	R	X	Z	Y
RECLOSER PATUHU	Tie Switch	LO1 V UJUNG	LM3 V UJUNG				

LOAD FLOW REPORT

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_1	20.000	98.633	-4.3	0.000	0.000	0.000	0.000	GH MARISA1	-0.809	-0.458	27.2	87.0	
								Bus_LM1_3	0.809	0.458	27.2	87.0	
Bus_LM1_2	0.400	96.980	-4.7	0.000	0.000	0.034	0.021	Bus_LM1_3	-0.034	-0.021	60.3	85.0	
Bus_LM1_3	20.000	98.502	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_1	-0.808	-0.459	27.2	87.0	
								Bus_LM1_7	0.773	0.437	26.0	87.1	
								Bus_LM1_2	0.035	0.022	1.2	84.6	
Bus_LM1_6	0.400	94.596	-5.3	0.000	0.000	0.021	0.013	Bus_LM1_7	-0.021	-0.013	37.3	85.0	
Bus_LM1_7	20.000	98.377	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_3	-0.772	-0.437	26.0	87.0	
								Bus_LM1_9	0.423	0.239	14.3	87.1	
								Bus_LM1_70	0.328	0.185	11.0	87.1	
								Bus_LM1_6	0.021	0.014	0.7	84.1	
Bus_LM1_8	0.400	96.520	-4.8	0.000	0.000	0.040	0.025	Bus_LM1_9	-0.040	-0.025	70.8	85.0	
Bus_LM1_9	20.000	98.308	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_7	-0.423	-0.240	14.3	87.0	
								Bus_LM1_11	0.382	0.214	12.9	87.2	
								Bus_LM1_8	0.041	0.026	1.4	84.6	
Bus_LM1_10	0.400	98.136	-4.3	0.000	0.000	0.003	0.002	Bus_LM1_11	-0.003	-0.002	4.4	85.0	
Bus_LM1_11	20.000	98.246	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_9	-0.382	-0.215	12.9	87.1	
								Bus_LM1_13	0.379	0.214	12.8	87.1	
								Bus_LM1_10	0.003	0.002	0.1	85.0	
Bus_LM1_12	0.400	94.399	-5.3	0.000	0.000	0.042	0.026	Bus_LM1_13	-0.042	-0.026	74.8	85.0	
Bus_LM1_13	20.000	98.185	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_11	-0.379	-0.215	12.8	87.0	
								Bus_LM1_15	0.336	0.187	11.3	87.4	
								Bus_LM1_12	0.043	0.028	1.5	84.1	
Bus_LM1_14	0.400	96.905	-4.7	0.000	0.000	0.028	0.017	Bus_LM1_15	-0.028	-0.017	48.6	85.0	
Bus_LM1_15	20.000	98.130	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_13	-0.336	-0.188	11.3	87.2	
								Bus_LM1_17	0.308	0.171	10.4	87.4	
								Bus_LM1_14	0.028	0.018	1.0	84.7	
Bus_LM1_16	0.400	96.138	-4.9	0.000	0.000	0.022	0.013	Bus_LM1_17	-0.022	-0.013	38.4	85.0	
Bus_LM1_17	20.000	98.081	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_15	-0.308	-0.172	10.4	87.3	
								Bus_LM1_19	0.286	0.158	9.6	87.5	
								Bus_LM1_16	0.022	0.014	0.8	84.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_18	0.400	96.167	-4.8	0.000	0.000	0.021	0.013	Bus_LM1_19	-0.021	-0.013	37.0	85.0	
Bus_LM1_19	20.000	98.034	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_17	-0.286	-0.159	9.6	87.3	
								Bus_LM1_21	0.265	0.146	8.9	87.5	
								Bus_LM1_18	0.021	0.013	0.7	84.5	
Bus_LM1_20	0.400	92.777	-5.7	0.000	0.000	0.028	0.017	Bus_LM1_21	-0.028	-0.017	51.4	85.0	
Bus_LM1_21	20.000	97.991	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_19	-0.264	-0.147	8.9	87.4	
								Bus_LM1_25	0.235	0.128	7.9	87.8	
								Bus_LM1_20	0.029	0.019	1.0	83.7	
Bus_LM1_25	20.000	97.954	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_21	-0.235	-0.129	7.9	87.6	
								Bus_LM1_41	0.219	0.119	7.3	87.8	
								Bus_LM1_26	0.016	0.010	0.6	84.7	
Bus_LM1_26	0.400	96.538	-4.7	0.000	0.000	0.016	0.010	Bus_LM1_25	-0.016	-0.010	28.0	85.0	
Bus_LM1_31	20.000	97.883	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_41	-0.219	-0.122	7.4	87.4	
								Bus_LM1_37	0.199	0.110	6.7	87.6	
								Bus_LM1_32	0.020	0.012	0.7	84.6	
Bus_LM1_32	0.400	96.165	-4.8	0.000	0.000	0.019	0.012	Bus_LM1_31	-0.019	-0.012	34.0	85.0	
Bus_LM1_33	20.000	97.788	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_35	-0.052	-0.028	1.7	87.9	
								Bus_LM1_42	0.036	0.018	1.2	89.2	
								Bus_LM1_34	0.015	0.010	0.5	84.7	
Bus_LM1_34	0.400	96.447	-4.7	0.000	0.000	0.015	0.009	Bus_LM1_33	-0.015	-0.009	26.6	85.0	
Bus_LM1_35	20.000	97.796	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_33	0.052	0.027	1.7	88.8	
								Bus_LM1_39	-0.161	-0.089	5.4	87.5	
								Bus_LM1_59	0.099	0.056	3.4	87.0	
								Bus_LM1_36	0.010	0.006	0.4	84.8	
Bus_LM1_36	0.400	96.905	-4.6	0.000	0.000	0.010	0.006	Bus_LM1_35	-0.010	-0.006	17.7	85.0	
Bus_LM1_37	20.000	97.851	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_31	-0.199	-0.111	6.7	87.4	
								Bus_LM1_39	0.176	0.096	5.9	87.8	
								Bus_LM1_38	0.024	0.015	0.8	84.5	
Bus_LM1_38	0.400	95.753	-4.9	0.000	0.000	0.023	0.015	Bus_LM1_37	-0.023	-0.015	41.5	85.0	
Bus_LM1_39	20.000	97.822	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_35	0.161	0.088	5.4	87.8	
								Bus_LM1_37	-0.176	-0.097	5.9	87.5	
								Bus_LM1_40	0.014	0.009	0.5	84.7	
Bus_LM1_40	0.400	96.556	-4.7	0.000	0.000	0.014	0.009	Bus_LM1_39	-0.014	-0.009	25.1	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_41	20.000	97.918	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_25	-0.219	-0.121	7.4	87.6	
								Bus_LM1_31	0.219	0.121	7.4	87.6	
Bus_LM1_42	20.000	97.782	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_33	-0.036	-0.020	1.2	87.9	
								Bus_LM1_44	0.024	0.012	0.8	89.7	
								Bus_LM1_43	0.013	0.008	0.4	84.4	
Bus_LM1_43	0.400	95.531	-5.0	0.000	0.000	0.013	0.008	Bus_LM1_42	-0.013	-0.008	22.3	85.0	
Bus_LM1_44	20.000	97.778	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_42	-0.024	-0.013	0.8	87.6	
								Bus_LM1_46	0.003	0.000	0.1	99.4	
								Bus_LM1_45	0.020	0.013	0.7	84.9	
Bus_LM1_45	0.400	97.223	-4.5	0.000	0.000	0.020	0.013	Bus_LM1_44	-0.020	-0.013	35.2	85.0	
Bus_LM1_46	20.000	97.778	-4.4	0.000	0.000	0.000	0.000	LM1 V UJUNG	0.000	0.000	0.0	0.0	
								Bus_LM1_44	-0.003	-0.002	0.1	89.3	
								Bus_LM1_47	0.003	0.002	0.1	84.9	
Bus_LM1_47	0.400	97.482	-4.5	0.000	0.000	0.003	0.002	Bus_LM1_46	-0.003	-0.002	5.9	85.0	
Bus_LM1_58	0.400	96.438	-4.7	0.000	0.000	0.008	0.005	Bus_LM1_59	-0.008	-0.005	13.3	85.0	
Bus_LM1_59	20.000	97.780	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_35	-0.099	-0.058	3.4	86.5	
								Bus_LM1_66	0.092	0.053	3.1	86.7	
								Bus_LM1_58	0.008	0.005	0.3	84.7	
Bus_LM1_60	0.400	94.268	-5.3	0.000	0.000	0.019	0.012	Bus_LM1_65	-0.019	-0.012	34.4	85.0	
Bus_LM1_61	0.400	95.799	-4.9	0.000	0.000	0.022	0.013	Bus_LM1_64	-0.022	-0.013	38.5	85.0	
Bus_LM1_62	0.400	95.490	-5.0	0.000	0.000	0.025	0.016	Bus_LM1_63	-0.025	-0.016	44.5	85.0	
Bus_LM1_63	20.000	97.741	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_64	-0.025	-0.016	0.9	84.4	
								Bus_LM1_62	0.025	0.016	0.9	84.4	
Bus_LM1_64	20.000	97.746	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_63	0.025	0.015	0.9	86.4	
								Bus_LM1_65	-0.048	-0.029	1.6	85.5	
								Bus_LM1_61	0.022	0.014	0.8	84.5	
Bus_LM1_65	20.000	97.754	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_64	0.048	0.027	1.6	86.6	
								Bus_LM1_66	-0.067	-0.040	2.3	85.9	
								Bus_LM1_60	0.020	0.013	0.7	84.1	
Bus_LM1_66	20.000	97.765	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_59	-0.092	-0.054	3.1	86.1	
								Bus_LM1_65	0.067	0.039	2.3	86.6	
								Bus_LM1_67	0.025	0.015	0.9	84.7	
Bus_LM1_67	0.400	96.686	-4.7	0.000	0.000	0.024	0.015	Bus_LM1_66	-0.024	-0.015	42.7	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_70	20.000	98.324	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_7	-0.328	-0.186	11.1	87.0	
								Bus_LM1_74	0.300	0.168	10.1	87.2	
								Bus_LM1_71	0.028	0.018	1.0	84.7	
Bus_LM1_71	0.400	97.100	-4.6	0.000	0.000	0.028	0.017	Bus_LM1_70	-0.028	-0.017	48.5	85.0	
Bus_LM1_74	20.000	98.275	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_70	-0.300	-0.170	10.1	87.0	
								Bus_LM1_76	0.282	0.158	9.5	87.2	
								Bus_LM1_75	0.018	0.011	0.6	84.6	
Bus_LM1_75	0.400	96.713	-4.7	0.000	0.000	0.018	0.011	Bus_LM1_74	-0.018	-0.011	30.9	85.0	
Bus_LM1_76	20.000	98.229	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_74	-0.282	-0.160	9.5	87.0	
								Bus_LM1_78	0.267	0.151	9.0	87.1	
								Bus_LM1_77	0.014	0.009	0.5	84.8	
Bus_LM1_77	0.400	97.601	-4.5	0.000	0.000	0.014	0.009	Bus_LM1_76	-0.014	-0.009	24.9	85.0	
Bus_LM1_78	20.000	98.186	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_76	-0.267	-0.152	9.0	86.9	
								Bus_LM1_80	0.256	0.145	8.7	87.0	
								Bus_LM1_79	0.011	0.007	0.4	84.8	
Bus_LM1_79	0.400	97.222	-4.6	0.000	0.000	0.011	0.007	Bus_LM1_78	-0.011	-0.007	19.1	85.0	
Bus_LM1_80	20.000	98.144	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_78	-0.256	-0.146	8.7	86.8	
								Bus_LM1_82	0.208	0.116	7.0	87.4	
								Bus_LM1_81	0.048	0.030	1.7	84.5	
Bus_LM1_81	0.400	96.051	-4.9	0.000	0.000	0.047	0.029	Bus_LM1_80	-0.047	-0.029	82.8	85.0	
Bus_LM1_82	20.000	98.110	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_80	-0.208	-0.117	7.0	87.1	
								Bus_LM1_84	0.204	0.115	6.9	87.2	
								Bus_LM1_83	0.004	0.003	0.1	85.0	
Bus_LM1_83	0.400	97.926	-4.4	0.000	0.000	0.004	0.003	Bus_LM1_82	-0.004	-0.003	7.3	85.0	
Bus_LM1_84	20.000	98.077	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_82	-0.204	-0.116	6.9	86.9	
								Bus_LM1_86	0.200	0.113	6.8	87.0	
								Bus_LM1_85	0.004	0.003	0.1	85.0	
Bus_LM1_85	0.400	97.893	-4.4	0.000	0.000	0.004	0.003	Bus_LM1_84	-0.004	-0.003	7.3	85.0	
Bus_LM1_86	20.000	98.045	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_84	-0.200	-0.115	6.8	86.7	
								Bus_LM1_91	0.171	0.096	5.8	87.1	
								Bus_LM1_87	0.029	0.018	1.0	84.4	
Bus_LM1_87	0.400	95.492	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_86	-0.028	-0.018	50.5	85.0	
Bus_LM1_91	20.000	98.017	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_86	-0.171	-0.098	5.8	86.8	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_93	0.142	0.079	4.8	87.3	
								Bus_LM1_92	0.029	0.018	1.0	84.4	
Bus_LM1_92	0.400	95.464	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_91	-0.028	-0.018	50.5	85.0	
Bus_LM1_93	20.000	97.994	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_91	-0.142	-0.081	4.8	87.0	
								Bus_LM1_97	0.134	0.076	4.5	87.1	
								Bus_LM1_94	0.008	0.005	0.3	84.8	
Bus_LM1_94	0.400	97.327	-4.5	0.000	0.000	0.008	0.005	Bus_LM1_93	-0.008	-0.005	13.2	85.0	
Bus_LM1_95	20.000	97.953	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_97	-0.113	-0.065	3.8	86.7	
								Bus_LM1_99	0.084	0.047	2.8	87.5	
								Bus_LM1_96	0.029	0.018	1.0	84.4	
Bus_LM1_96	0.400	95.399	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_95	-0.028	-0.018	50.5	85.0	
Bus_LM1_97	20.000	97.972	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_95	0.113	0.064	3.8	87.1	
								Bus_LM1_93	-0.134	-0.077	4.6	86.7	
								Bus_LM1_98	0.021	0.013	0.7	84.5	
Bus_LM1_98	0.400	96.104	-4.8	0.000	0.000	0.021	0.013	Bus_LM1_97	-0.021	-0.013	37.0	85.0	
Bus_LM1_99	20.000	97.940	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_95	-0.084	-0.048	2.9	86.9	
								Bus_LM1_101	0.055	0.030	1.8	88.2	
								Bus_LM1_100	0.029	0.018	1.0	84.4	
Bus_LM1_100	0.400	95.385	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_99	-0.028	-0.018	50.5	85.0	
Bus_LM1_101	20.000	97.931	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_99	-0.055	-0.031	1.9	87.3	
								Bus_LM1_115	0.043	0.023	1.5	88.0	
								Bus_LM1_102	0.012	0.007	0.4	84.7	
Bus_LM1_102	0.400	96.891	-4.6	0.000	0.000	0.012	0.007	Bus_LM1_101	-0.012	-0.007	20.6	85.0	
Bus_LM1_111	0.400	95.363	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_114	-0.028	-0.018	50.5	85.0	
Bus_LM1_112	0.400	97.399	-4.5	0.000	0.000	0.006	0.004	Bus_LM1_113	-0.006	-0.004	10.3	85.0	
Bus_LM1_113	20.000	97.917	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_114	-0.006	-0.004	0.2	84.9	
								Bus_LM1_112	0.006	0.004	0.2	84.9	
Bus_LM1_114	20.000	97.918	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_113	0.006	0.002	0.2	92.9	
								Bus_LM1_115	-0.035	-0.021	1.2	85.9	
								Bus_LM1_111	0.029	0.018	1.0	84.4	
Bus_LM1_115	20.000	97.924	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_101	-0.043	-0.025	1.5	86.8	
								Bus_LM1_114	0.035	0.019	1.2	87.3	
								Bus_LM1_116	0.008	0.005	0.3	84.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_116	0.400	96.433	-4.8	0.000	0.000	0.008	0.005	Bus_LM1_115	-0.008	-0.005	14.8	85.0	
Bus_LM1_123	0.400	96.427	-4.8	0.000	0.000	0.047	0.029	Bus_LM1_126	-0.047	-0.029	82.6	85.0	
Bus_LM1_124	0.400	98.382	-4.3	0.000	0.000	0.006	0.004	Bus_LM1_125	-0.006	-0.004	10.2	85.0	
Bus_LM1_125	20.000	98.543	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_151	-0.176	-0.105	6.0	85.8	
								Bus_LM1_126	0.170	0.101	5.8	85.9	
								Bus_LM1_124	0.006	0.004	0.2	85.0	
Bus_LM1_126	20.000	98.515	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_125	-0.170	-0.103	5.8	85.6	
								Bus_LM1_127	0.122	0.072	4.2	86.0	
								Bus_LM1_123	0.048	0.030	1.7	84.5	
Bus_LM1_127	20.000	98.495	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_126	-0.122	-0.074	4.2	85.6	
								Bus_LM1_137	0.079	0.046	2.7	86.4	
								Bus_LM1_128	0.043	0.028	1.5	84.1	
Bus_LM1_128	0.400	94.717	-5.3	0.000	0.000	0.042	0.026	Bus_LM1_127	-0.042	-0.026	74.6	85.0	
Bus_LM1_135	0.400	98.363	-4.3	0.000	0.000	0.003	0.002	Bus_LM1_138	-0.003	-0.002	4.4	85.0	
Bus_LM1_136	0.400	95.937	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_137	-0.028	-0.018	50.3	85.0	
Bus_LM1_137	20.000	98.482	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_127	-0.079	-0.047	2.7	85.8	
								Bus_LM1_138	0.050	0.029	1.7	86.5	
								Bus_LM1_136	0.029	0.018	1.0	84.4	
Bus_LM1_138	20.000	98.474	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_137	-0.050	-0.030	1.7	85.5	
								Bus_LM1_139	0.048	0.029	1.6	85.6	
								Bus_LM1_135	0.003	0.002	0.1	85.0	
Bus_LM1_139	20.000	98.466	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_138	-0.048	-0.030	1.7	84.5	
								Bus_LM1_140	0.048	0.030	1.7	84.5	
Bus_LM1_140	0.400	96.377	-4.8	0.000	0.000	0.047	0.029	Bus_LM1_139	-0.047	-0.029	82.7	85.0	
Bus_LM1_147	0.400	98.057	-4.4	0.000	0.000	0.011	0.007	Bus_LM1_150	-0.011	-0.007	19.0	85.0	
Bus_LM1_148	0.400	98.013	-4.4	0.000	0.000	0.012	0.007	Bus_LM1_149	-0.012	-0.007	20.5	85.0	
Bus_LM1_149	20.000	98.529	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_150	-0.045	-0.026	1.5	86.8	
								Bus_LM1_157	0.033	0.018	1.1	87.5	
								Bus_LM1_148	0.012	0.007	0.4	84.9	
Bus_LM1_150	20.000	98.536	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_149	0.045	0.024	1.5	87.9	
								Bus_LM1_151	-0.222	-0.129	7.5	86.5	
								Bus_LM1_155	0.166	0.098	5.6	86.2	
								Bus_LM1_147	0.011	0.007	0.4	84.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_151	20.000	98.572	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_125	0.176	0.104	6.0	86.1	
								Bus_LM1_169	-0.434	-0.254	14.7	86.3	
								Bus_LM1_150	0.222	0.128	7.5	86.7	
								Bus_LM1_152	0.036	0.023	1.2	84.2	
Bus_LM1_152	0.400	95.415	-5.1	0.000	0.000	0.035	0.022	Bus_LM1_151	-0.035	-0.022	62.4	85.0	
Bus_LM1_153	0.400	95.974	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_156	-0.028	-0.018	50.3	85.0	
Bus_LM1_154	0.400	98.163	-4.4	0.000	0.000	0.013	0.008	Bus_LM1_155	-0.013	-0.008	21.9	85.0	
Bus_LM1_155	20.000	98.509	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_150	-0.166	-0.099	5.7	85.9	
								Bus_LM1_163	0.153	0.091	5.2	86.0	
								Bus_LM1_154	0.013	0.008	0.4	84.9	
Bus_LM1_156	20.000	98.518	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_157	-0.029	-0.018	1.0	84.4	
								Bus_LM1_153	0.029	0.018	1.0	84.4	
Bus_LM1_157	20.000	98.523	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_149	-0.033	-0.020	1.1	86.0	
								Bus_LM1_156	0.029	0.017	1.0	86.1	
								Bus_LM1_158	0.004	0.003	0.1	84.9	
Bus_LM1_158	0.400	98.155	-4.4	0.000	0.000	0.004	0.003	Bus_LM1_157	-0.004	-0.003	7.3	85.0	
Bus_LM1_159	0.400	95.920	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_162	-0.028	-0.018	50.3	85.0	
Bus_LM1_160	0.400	95.907	-5.0	0.000	0.000	0.028	0.018	Bus_LM1_161	-0.028	-0.018	50.3	85.0	
Bus_LM1_161	20.000	98.453	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_162	-0.077	-0.046	2.6	85.6	
								Bus_LM1_167	0.048	0.028	1.6	86.3	
								Bus_LM1_160	0.029	0.018	1.0	84.4	
Bus_LM1_162	20.000	98.466	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_161	0.077	0.045	2.6	86.2	
								Bus_LM1_163	-0.106	-0.063	3.6	85.7	
								Bus_LM1_159	0.029	0.018	1.0	84.4	
Bus_LM1_163	20.000	98.483	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_155	-0.153	-0.092	5.2	85.7	
								Bus_LM1_162	0.106	0.062	3.6	86.2	
								Bus_LM1_164	0.048	0.030	1.7	84.5	
Bus_LM1_164	0.400	96.394	-4.8	0.000	0.000	0.047	0.029	Bus_LM1_163	-0.047	-0.029	82.7	85.0	
Bus_LM1_167	20.000	98.445	-4.3	0.000	0.000	0.000	0.000	LM4 V UJUNG	0.000	-0.001	0.0	0.0	
								Bus_LM1_161	-0.048	-0.029	1.6	85.2	
								Bus_LM1_168	0.048	0.030	1.7	84.5	
Bus_LM1_168	0.400	96.356	-4.8	0.000	0.000	0.047	0.029	Bus_LM1_167	-0.047	-0.029	82.7	85.0	
Bus_LM1_169	20.000	98.643	-4.3	0.000	0.000	0.000	0.000	GH MARISA1	-0.434	-0.253	14.7	86.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_151	0.434	0.253	14.7	86.4	
Bus_LM1_189	20.000	88.862	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_156	0.021	0.012	0.8	86.5	
								Bus_LM3_152	-0.165	-0.097	6.2	86.2	
								Bus_LM1_191	0.124	0.072	4.6	86.6	
								Bus_LM3_153	0.021	0.013	0.8	83.9	
Bus_LM1_190	20.000	88.832	-5.2	0.000	0.000	0.000	0.000	Bus_LM1_191	-0.042	-0.026	1.6	84.8	
								Bus_LM3_170	0.021	0.012	0.8	86.5	
								Bus_LM3_159	0.021	0.014	0.8	83.1	
Bus_LM1_191	20.000	88.840	-5.2	0.000	0.000	0.000	0.000	Bus_LM1_190	0.042	0.025	1.6	85.8	
								Bus_LM3_160	0.082	0.048	3.1	86.5	
								Bus_LM1_189	-0.124	-0.073	4.7	86.2	
Bus_LM1_193	20.000	88.843	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_152	-0.267	-0.157	10.1	86.2	
								Bus_LM1_195	0.246	0.144	9.3	86.3	
								Bus_LM3_173	0.021	0.013	0.8	84.5	
Bus_LM1_195	20.000	88.799	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_193	-0.246	-0.145	9.3	86.2	
								Bus_LM1_196	0.226	0.132	8.5	86.4	
								Bus_LM3_175	0.021	0.013	0.8	83.9	
Bus_LM1_196	20.000	88.758	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_195	-0.226	-0.133	8.5	86.2	
								Bus_LM1_197	0.205	0.120	7.7	86.4	
								Bus_LM3_176	0.021	0.013	0.8	84.5	
Bus_LM1_197	20.000	88.720	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_196	-0.205	-0.121	7.7	86.2	
								Bus_LM1_198	0.020	0.012	0.8	86.8	
								Bus_LM1_200	0.164	0.096	6.2	86.3	
								Bus_LM3_177	0.020	0.013	0.8	84.7	
Bus_LM1_198	20.000	88.717	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_197	-0.020	-0.013	0.8	84.7	
								Bus_LM3_178	0.020	0.013	0.8	84.7	
Bus_LM1_200	20.000	88.690	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_197	-0.164	-0.097	6.2	86.1	
								Bus_LM1_202	0.143	0.084	5.4	86.3	
								Bus_LM3_180	0.021	0.013	0.8	84.5	
Bus_LM1_202	20.000	88.664	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_200	-0.143	-0.085	5.4	86.0	
								Bus_LM1_203	0.123	0.072	4.6	86.2	
								Bus_LM3_182	0.020	0.013	0.8	84.7	
Bus_LM1_203	20.000	88.642	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_202	-0.123	-0.073	4.7	85.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_204	0.021	0.012	0.8	86.5	
								Bus_LM1_212	0.082	0.048	3.1	86.1	
								Bus_LM3_183	0.021	0.013	0.8	84.5	
Bus_LM1_204	20.000	88.638	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_203	-0.021	-0.013	0.8	84.5	
								Bus_LM3_184	0.021	0.013	0.8	84.5	
Bus_LM1_209	20.000	88.622	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_210	-0.020	-0.013	0.8	84.7	
								Bus_LM3_193	0.020	0.013	0.8	84.7	
Bus_LM1_210	20.000	88.624	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_209	0.020	0.012	0.8	86.2	
								Bus_LM1_211	-0.041	-0.025	1.6	85.5	
								Bus_LM3_192	0.020	0.013	0.8	84.7	
Bus_LM1_211	20.000	88.628	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_210	0.041	0.024	1.5	86.2	
								Bus_LM1_212	-0.061	-0.037	2.3	85.6	
								Bus_LM3_191	0.021	0.013	0.8	84.5	
Bus_LM1_212	20.000	88.634	-5.3	0.000	0.000	0.000	0.000	Bus_LM1_203	-0.082	-0.049	3.1	85.7	
								Bus_LM1_211	0.061	0.036	2.3	86.1	
								Bus_LM3_194	0.021	0.013	0.8	84.5	
Bus_LM1_215	20.000	88.965	-5.4	0.000	0.000	0.000	0.000	LO1 V UJUNG	-2.067	-1.254	78.4	85.5	
								Bus_LM1_217	2.051	1.244	77.8	85.5	
								Bus_LM3_196	0.016	0.010	0.6	84.2	
Bus_LM1_217	20.000	88.821	-5.4	0.000	0.000	0.000	0.000	Bus_LM1_215	-2.049	-1.241	77.8	85.5	
								Bus_LM1_218	2.003	1.211	76.1	85.6	
								Bus_LM3_198	0.046	0.029	1.8	84.4	
Bus_LM1_218	20.000	88.680	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_217	-2.000	-1.209	76.1	85.6	
								Bus_LM1_219	1.972	1.191	75.0	85.6	
								Bus_LM3_199	0.028	0.018	1.1	84.3	
Bus_LM1_219	20.000	88.540	-5.5	0.000	0.000	0.000	0.000	Bus_LM1_218	-1.970	-1.188	75.0	85.6	
								Bus_LM1_220	1.942	1.170	73.9	85.7	
								Bus_LM3_200	0.028	0.018	1.1	84.3	
Bus_LM1_220	20.000	88.403	-5.6	0.000	0.000	0.000	0.000	Bus_LM1_219	-1.940	-1.168	73.9	85.7	
								Bus_LM1_221	1.912	1.150	72.8	85.7	
								Bus_LM3_201	0.028	0.018	1.1	84.2	
Bus_LM1_221	20.000	88.268	-5.6	0.000	0.000	0.000	0.000	Bus_LM1_220	-1.910	-1.147	72.9	85.7	
								Bus_LM1_222	1.882	1.129	71.8	85.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_202	0.028	0.018	1.1	84.2	
Bus_LM1_222	20.000	88.135	-5.6	0.000	0.000	0.000	0.000	Bus_LM1_221	-1.880	-1.127	71.8	85.8	
								Bus_LM1_224	1.852	1.109	70.7	85.8	
								Bus_LM3_203	0.028	0.018	1.1	84.2	
Bus_LM1_224	20.000	88.005	-5.7	0.000	0.000	0.000	0.000	Bus_LM1_222	-1.850	-1.107	70.7	85.8	
								Bus_LM1_226	1.829	1.094	69.9	85.8	
								Bus_LM3_205	0.020	0.013	0.8	84.7	
Bus_LM1_226	20.000	87.875	-5.7	0.000	0.000	0.000	0.000	Bus_LM1_224	-1.827	-1.092	69.9	85.8	
								Bus_LM1_227	1.807	1.079	69.1	85.9	
								Bus_LM3_207	0.020	0.013	0.8	84.7	
Bus_LM1_227	20.000	87.747	-5.7	0.000	0.000	0.000	0.000	Bus_LM1_226	-1.805	-1.077	69.1	85.9	
								Bus_LM1_228	1.785	1.064	68.3	85.9	
								Bus_LM3_208	0.020	0.013	0.8	84.4	
Bus_LM1_228	20.000	87.621	-5.8	0.000	0.000	0.000	0.000	Bus_LM1_227	-1.783	-1.062	68.4	85.9	
								Bus_LM1_229	1.762	1.049	67.6	85.9	
								Bus_LM3_209	0.020	0.013	0.8	84.4	
Bus_LM1_229	20.000	87.496	-5.8	0.000	0.000	0.000	0.000	Bus_LM1_228	-1.760	-1.047	67.6	86.0	
								Bus_LM1_230	0.041	0.023	1.5	86.8	
								Bus_LM1_232	1.699	1.010	65.2	86.0	
								Bus_LM3_210	0.020	0.013	0.8	84.4	
Bus_LM1_230	20.000	87.490	-5.8	0.000	0.000	0.000	0.000	Bus_LM1_229	-0.041	-0.024	1.6	85.8	
								Bus_LM1_231	0.020	0.012	0.8	86.8	
								Bus_LM3_211	0.020	0.013	0.8	84.7	
Bus_LM1_231	20.000	87.488	-5.8	0.000	0.000	0.000	0.000	Bus_LM1_230	-0.020	-0.013	0.8	84.7	
								Bus_LM3_212	0.020	0.013	0.8	84.7	
Bus_LM1_232	20.000	87.375	-5.9	0.000	0.000	0.000	0.000	Bus_LM1_229	-1.697	-1.009	65.2	86.0	
								Bus_LM1_233	1.677	0.995	64.4	86.0	
								Bus_LM3_213	0.021	0.013	0.8	83.9	
Bus_LM1_233	20.000	87.256	-5.9	0.000	0.000	0.000	0.000	Bus_LM1_232	-1.675	-0.993	64.4	86.0	
								Bus_LM1_237	1.655	0.980	63.6	86.0	
								Bus_LM3_214	0.020	0.013	0.8	84.4	
Bus_LM1_236	20.000	87.022	-6.0	0.000	0.000	0.000	0.000	Bus_LM1_237	-1.631	-0.964	62.8	86.1	
								Bus_LM1_239	1.611	0.951	62.0	86.1	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_217	0.020	0.013	0.8	84.4	
Bus_LM1_237	20.000	87.138	-5.9	0.000	0.000	0.000	0.000	Bus_LM1_233	-1.653	-0.979	63.6	86.1	
								Bus_LM1_236	1.633	0.966	62.8	86.1	
								Bus_LM3_218	0.020	0.013	0.8	84.4	
Bus_LM1_238	20.000	86.795	-6.0	0.000	0.000	0.000	0.000	Bus_LM1_239	-1.587	-0.935	61.3	86.2	
								Bus_LM1_241	1.567	0.922	60.5	86.2	
								Bus_LM3_219	0.020	0.013	0.8	84.4	
Bus_LM1_239	20.000	86.908	-6.0	0.000	0.000	0.000	0.000	Bus_LM1_236	-1.609	-0.949	62.1	86.1	
								Bus_LM1_238	1.589	0.936	61.3	86.1	
								Bus_LM3_220	0.020	0.013	0.8	84.4	
Bus_LM1_240	20.000	86.573	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_241	-1.543	-0.906	59.7	86.2	
								Bus_LM1_243	1.523	0.893	58.9	86.3	
								Bus_LM3_221	0.020	0.013	0.8	84.4	
Bus_LM1_241	20.000	86.683	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_238	-1.565	-0.920	60.5	86.2	
								Bus_LM1_240	1.545	0.907	59.7	86.2	
								Bus_LM3_222	0.020	0.013	0.8	84.4	
Bus_LM1_242	20.000	86.457	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_243	-0.041	-0.024	1.6	85.7	
								Bus_LM1_245	0.020	0.012	0.8	86.8	
								Bus_LM3_223	0.020	0.013	0.8	84.7	
Bus_LM1_243	20.000	86.464	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_240	-1.522	-0.891	58.9	86.3	
								Bus_LM1_242	0.041	0.023	1.6	86.7	
								Bus_LM1_244	1.461	0.855	56.5	86.3	
								Bus_LM3_224	0.021	0.013	0.8	83.8	
Bus_LM1_244	20.000	86.360	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_243	-1.459	-0.853	56.5	86.3	
								Bus_LM1_249	1.439	0.841	55.7	86.3	
								Bus_LM3_225	0.020	0.013	0.8	84.7	
Bus_LM1_245	20.000	86.453	-6.1	0.000	0.000	0.000	0.000	Bus_LM1_242	-0.020	-0.013	0.8	84.8	
								Bus_LM3_226	0.020	0.013	0.8	84.8	
Bus_LM1_249	20.000	86.258	-6.2	0.000	0.000	0.000	0.000	GH LEMITO	1.417	0.827	54.9	86.4	
								Bus_LM1_244	-1.438	-0.840	55.7	86.4	
								Bus_LM3_230	0.020	0.013	0.8	84.7	
Bus_LM1_251	20.000	86.171	-6.2	0.000	0.000	0.000	0.000	GH LEMITO	-1.416	-0.854	55.4	85.6	
								Bus_LM1_253	1.396	0.841	54.6	85.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_232	0.020	0.013	0.8	84.4	
Bus_LM1_253	20.000	86.065	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_251	-1.394	-0.840	54.6	85.7	
								Bus_LM1_254	1.374	0.827	53.8	85.7	
								Bus_LM3_234	0.020	0.013	0.8	84.4	
Bus_LM1_254	20.000	85.961	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_253	-1.372	-0.826	53.8	85.7	
								Bus_LM1_255	1.352	0.813	53.0	85.7	
								Bus_LM3_235	0.020	0.013	0.8	84.4	
Bus_LM1_255	20.000	85.858	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_254	-1.351	-0.813	53.0	85.7	
								Bus_LM1_259	1.330	0.800	52.2	85.7	
								Bus_LM3_236	0.020	0.013	0.8	84.4	
Bus_LM1_258	20.000	85.658	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_259	-1.307	-0.785	51.4	85.7	
								Bus_LM1_267	1.287	0.772	50.6	85.7	
								Bus_LM3_239	0.020	0.013	0.8	84.7	
Bus_LM1_259	20.000	85.757	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_255	-1.329	-0.799	52.2	85.7	
								Bus_LM1_258	1.309	0.786	51.4	85.7	
								Bus_LM3_240	0.020	0.013	0.8	84.4	
Bus_LM1_264	20.000	85.276	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_265	-1.221	-0.731	48.2	85.8	
								Bus_LM1_270	0.040	0.024	1.6	86.5	
								Bus_LM1_275	1.160	0.694	45.8	85.8	
								Bus_LM3_247	0.021	0.013	0.8	83.8	
Bus_LM1_265	20.000	85.369	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_264	1.222	0.731	48.2	85.8	
								Bus_LM1_266	-1.242	-0.744	49.0	85.8	
								Bus_LM3_246	0.020	0.013	0.8	84.4	
Bus_LM1_266	20.000	85.464	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_265	1.244	0.745	49.0	85.8	
								Bus_LM1_267	-1.264	-0.758	49.8	85.8	
								Bus_LM3_245	0.021	0.013	0.8	83.8	
Bus_LM1_267	20.000	85.560	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_258	-1.286	-0.772	50.6	85.7	
								Bus_LM1_266	1.265	0.759	49.8	85.8	
								Bus_LM3_248	0.020	0.013	0.8	84.7	
Bus_LM1_270	20.000	85.268	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_264	-0.040	-0.025	1.6	85.5	
								Bus_LM1_271	0.020	0.012	0.8	86.6	
								Bus_LM3_251	0.020	0.013	0.8	84.4	
Bus_LM1_271	20.000	85.264	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_270	-0.020	-0.013	0.8	84.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_252	0.020	0.013	0.8	84.7	
Bus_LM1_274	20.000	85.073	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.142	-0.084	5.6	86.1	
								Bus_LM1_277	0.122	0.071	4.8	86.3	
								Bus_LM3_255	0.020	0.013	0.8	84.7	
Bus_LM1_275	20.000	85.187	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_264	-1.159	-0.693	45.8	85.8	
								Bus_LM1_278	1.139	0.681	45.0	85.8	
								Bus_LM3_256	0.020	0.013	0.8	84.7	
Bus_LM1_277	20.000	85.050	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_274	-0.122	-0.072	4.8	86.0	
								Bus_LM1_282	0.101	0.059	4.0	86.3	
								Bus_LM3_258	0.020	0.013	0.8	84.4	
Bus_LM1_278	20.000	85.100	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_274	0.142	0.083	5.6	86.3	
								Bus_LM1_275	-1.138	-0.680	45.0	85.8	
								Bus_LM1_285	0.041	0.024	1.6	86.3	
								Bus_LM1_294	0.061	0.036	2.4	86.0	
								Bus_LM1_300	0.894	0.537	35.4	85.7	
Bus_LM1_281	20.000	85.015	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_282	-0.081	-0.049	3.2	85.8	
								Bus_LM1_284	0.061	0.036	2.4	86.3	
								Bus_LM3_262	0.020	0.013	0.8	84.4	
Bus_LM1_282	20.000	85.031	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_281	0.081	0.048	3.2	86.3	
								Bus_LM1_277	-0.101	-0.060	4.0	85.9	
								Bus_LM3_261	0.020	0.013	0.8	84.4	
Bus_LM1_283	20.000	84.996	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_284	-0.041	-0.025	1.6	85.4	
								Bus_LM1_286	0.020	0.012	0.8	86.3	
								Bus_LM3_264	0.020	0.013	0.8	84.4	
Bus_LM1_284	20.000	85.003	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_283	0.041	0.024	1.6	86.3	
								Bus_LM1_281	-0.061	-0.037	2.4	85.7	
								Bus_LM3_263	0.020	0.013	0.8	84.4	
Bus_LM1_285	20.000	85.092	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.041	-0.025	1.6	85.4	
								Bus_LM1_288	0.020	0.012	0.8	86.3	
								Bus_LM3_266	0.020	0.013	0.8	84.4	
Bus_LM1_286	20.000	84.992	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_283	-0.020	-0.013	0.8	84.4	
								Bus_LM3_265	0.020	0.013	0.8	84.4	
Bus_LM1_288	20.000	85.088	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_285	-0.020	-0.013	0.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_268	0.020	0.013	0.8	84.4	
Bus_LM1_292	20.000	85.077	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_293	-0.020	-0.013	0.8	84.7	
								Bus_LM3_273	0.020	0.013	0.8	84.7	
Bus_LM1_293	20.000	85.081	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_292	0.020	0.012	0.8	86.6	
								Bus_LM1_294	-0.041	-0.025	1.6	85.2	
								Bus_LM3_272	0.021	0.013	0.8	83.8	
Bus_LM1_294	20.000	85.088	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.061	-0.037	2.4	85.3	
								Bus_LM1_293	0.041	0.024	1.6	86.1	
								Bus_LM3_274	0.021	0.013	0.8	83.8	
Bus_LM1_298	20.000	84.899	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_299	-0.852	-0.511	33.8	85.8	
								Bus_LM1_307	0.831	0.497	32.9	85.8	
								Bus_LM3_279	0.021	0.013	0.8	83.8	
Bus_LM1_299	20.000	84.965	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_298	0.852	0.511	33.8	85.8	
								Bus_LM1_300	-0.872	-0.524	34.6	85.7	
								Bus_LM3_278	0.020	0.013	0.8	84.4	
Bus_LM1_300	20.000	85.032	-6.3	0.000	0.000	0.000	0.000	Bus_LM1_278	-0.893	-0.537	35.4	85.7	
								Bus_LM1_299	0.873	0.524	34.6	85.7	
								Bus_LM3_280	0.020	0.013	0.8	84.4	
Bus_LM1_304	20.000	84.812	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_305	-0.020	-0.013	0.8	84.4	
								Bus_LM3_285	0.020	0.013	0.8	84.4	
Bus_LM1_305	20.000	84.816	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_304	0.020	0.012	0.8	86.3	
								Bus_LM1_306	-0.041	-0.025	1.6	85.3	
								Bus_LM3_284	0.020	0.013	0.8	84.4	
Bus_LM1_306	20.000	84.824	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_307	-0.061	-0.036	2.4	85.8	
								Bus_LM1_305	0.041	0.024	1.6	86.3	
								Bus_LM3_286	0.020	0.013	0.8	84.7	
Bus_LM1_307	20.000	84.836	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_298	-0.830	-0.497	32.9	85.8	
								Bus_LM1_306	0.061	0.035	2.4	86.4	
								Bus_LM1_309	0.770	0.462	30.5	85.7	
Bus_LM1_309	20.000	84.777	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_307	-0.769	-0.462	30.6	85.7	
								Bus_LM1_322	0.708	0.425	28.1	85.7	
								Bus_LM1_313	0.041	0.024	1.6	86.3	
								Bus_LM3_288	0.020	0.013	0.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_312	20.000	84.765	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_313	-0.020	-0.013	0.8	84.4	
								Bus_LM3_291	0.020	0.013	0.8	84.4	
Bus_LM1_313	20.000	84.769	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_309	-0.041	-0.025	1.6	85.3	
								Bus_LM1_312	0.020	0.012	0.8	86.3	
								Bus_LM3_292	0.020	0.013	0.8	84.4	
Bus_LM1_318	20.000	84.683	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_319	-0.020	-0.013	0.8	84.7	
								Bus_LM3_300	0.020	0.013	0.8	84.7	
Bus_LM1_319	20.000	84.687	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_318	0.020	0.012	0.8	86.6	
								Bus_LM1_320	-0.040	-0.024	1.6	85.6	
								Bus_LM3_299	0.020	0.013	0.8	84.7	
Bus_LM1_320	20.000	84.694	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_319	0.040	0.023	1.6	86.6	
								Bus_LM1_321	-0.061	-0.037	2.4	85.3	
								Bus_LM3_298	0.021	0.014	0.9	82.9	
Bus_LM1_321	20.000	84.706	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_320	0.061	0.036	2.4	85.9	
								Bus_LM1_322	-0.082	-0.050	3.3	85.2	
								Bus_LM3_297	0.021	0.014	0.9	82.9	
Bus_LM1_322	20.000	84.722	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_309	-0.708	-0.425	28.1	85.7	
								Bus_LM1_321	0.082	0.049	3.3	85.6	
								Bus_LM1_330	0.626	0.376	24.9	85.7	
Bus_LM1_327	20.000	84.539	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_328	-0.564	-0.337	22.4	85.8	
								Bus_LM1_338	0.142	0.084	5.6	86.1	
								Bus_LM1_358	0.102	0.060	4.0	86.1	
								Bus_LM1_359	0.300	0.181	12.0	85.7	
								Bus_LM3_308	0.020	0.013	0.8	84.4	
Bus_LM1_328	20.000	84.582	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_327	0.564	0.337	22.4	85.8	
								Bus_LM1_329	-0.585	-0.350	23.3	85.8	
								Bus_LM3_307	0.020	0.013	0.8	83.8	
Bus_LM1_329	20.000	84.627	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_328	0.585	0.350	23.3	85.8	
								Bus_LM1_330	-0.605	-0.363	24.1	85.7	
								Bus_LM3_306	0.020	0.013	0.8	84.4	
Bus_LM1_330	20.000	84.674	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_329	0.605	0.363	24.1	85.8	
								Bus_LM1_322	-0.626	-0.376	24.9	85.7	
								Bus_LM3_305	0.020	0.013	0.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM1_335	20.000	84.453	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_336	-0.081	-0.048	3.2	86.0	
								Bus_LM1_343	0.061	0.035	2.4	86.5	
								Bus_LM3_316	0.020	0.013	0.8	84.4	
Bus_LM1_336	20.000	84.469	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_335	0.081	0.047	3.2	86.4	
								Bus_LM1_337	-0.101	-0.060	4.0	86.0	
								Bus_LM3_315	0.020	0.013	0.8	84.4	
Bus_LM1_337	20.000	84.488	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_336	0.101	0.059	4.0	86.4	
								Bus_LM1_338	-0.122	-0.073	4.9	85.8	
								Bus_LM3_314	0.021	0.014	0.9	82.9	
Bus_LM1_338	20.000	84.512	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_337	0.122	0.072	4.8	86.1	
								Bus_LM1_327	-0.142	-0.085	5.7	85.9	
								Bus_LM3_313	0.020	0.013	0.8	84.4	
Bus_LM1_343	20.000	84.442	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_335	-0.061	-0.036	2.4	85.8	
								Bus_LM1_344	0.040	0.023	1.6	86.6	
								Bus_LM3_322	0.020	0.013	0.8	84.4	
Bus_LM1_344	20.000	84.434	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_343	-0.040	-0.024	1.6	85.6	
								Bus_LM1_346	0.020	0.012	0.8	86.6	
								Bus_LM3_321	0.020	0.013	0.8	84.7	
Bus_LM1_345	20.000	84.385	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_375	-0.121	-0.073	4.9	85.6	
								Bus_LM1_380	0.101	0.061	4.0	85.8	
								Bus_LM3_323	0.020	0.013	0.8	84.4	
Bus_LM1_346	20.000	84.430	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_344	-0.020	-0.013	0.8	84.7	
								Bus_LM3_324	0.020	0.013	0.8	84.7	
Bus_LM1_353	20.000	84.493	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_359	-0.300	-0.181	12.0	85.6	
								Bus_LM1_361	0.280	0.168	11.2	85.7	
								Bus_LM3_336	0.020	0.013	0.8	84.4	
Bus_LM1_354	20.000	84.480	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_355	-0.020	-0.013	0.8	84.4	
								Bus_LM3_335	0.020	0.013	0.8	84.4	
Bus_LM1_355	20.000	84.484	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_354	0.020	0.012	0.8	86.3	
								Bus_LM1_356	-0.040	-0.025	1.6	85.3	
								Bus_LM3_334	0.020	0.013	0.8	84.4	
Bus_LM1_356	20.000	84.492	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_355	0.040	0.024	1.6	86.3	
								Bus_LM1_357	-0.061	-0.037	2.4	85.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_333	0.020	0.013	0.8	84.4	
Bus_LM1_357	20.000	84.504	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_356	0.061	0.036	2.4	86.3	
								Bus_LM1_358	-0.081	-0.048	3.2	85.8	
								Bus_LM3_332	0.020	0.013	0.8	84.4	
Bus_LM1_358	20.000	84.519	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_357	0.081	0.048	3.2	86.3	
								Bus_LM1_327	-0.101	-0.061	4.0	85.8	
								Bus_LM3_331	0.020	0.013	0.8	83.8	
Bus_LM1_359	20.000	84.516	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_353	0.300	0.181	12.0	85.6	
								Bus_LM1_327	-0.300	-0.181	12.0	85.6	
Bus_LM1_361	20.000	84.471	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_353	-0.280	-0.169	11.2	85.6	
								Bus_LM1_362	0.259	0.156	10.3	85.7	
								Bus_LM3_338	0.020	0.013	0.8	84.4	
Bus_LM1_362	20.000	84.451	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_361	-0.259	-0.156	10.3	85.6	
								Bus_LM1_369	0.239	0.144	9.5	85.7	
								Bus_LM3_339	0.020	0.013	0.8	84.7	
Bus_LM1_366	20.000	84.421	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_367	-0.020	-0.013	0.8	84.7	
								Bus_LM3_345	0.020	0.013	0.8	84.7	
Bus_LM1_367	20.000	84.425	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_366	0.020	0.012	0.8	86.6	
								Bus_LM1_369	-0.040	-0.025	1.6	85.5	
								Bus_LM3_344	0.020	0.013	0.8	84.4	
Bus_LM1_368	20.000	84.429	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_369	-0.016	-0.011	0.7	84.0	
								Bus_LM3_343	0.016	0.011	0.7	84.0	
Bus_LM1_369	20.000	84.432	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_362	-0.239	-0.144	9.5	85.7	
								Bus_LM1_367	0.040	0.024	1.6	86.4	
								Bus_LM1_368	0.016	0.010	0.6	86.3	
								Bus_LM1_377	0.182	0.111	7.3	85.4	
Bus_LM1_375	20.000	84.395	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_345	0.121	0.073	4.8	85.7	
								Bus_LM1_376	-0.142	-0.086	5.7	85.5	
								Bus_LM3_352	0.020	0.013	0.8	84.4	
Bus_LM1_376	20.000	84.406	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_375	0.142	0.085	5.7	85.6	
								Bus_LM1_377	-0.162	-0.098	6.5	85.5	
								Bus_LM3_351	0.020	0.013	0.8	84.4	
Bus_LM1_377	20.000	84.418	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_376	0.162	0.098	6.5	85.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM1_369	-0.182	-0.111	7.3	85.4	
								Bus_LM3_350	0.020	0.013	0.8	83.8	
Bus_LM1_380	20.000	84.378	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_345	-0.101	-0.061	4.0	85.7	
								Bus_LM1_384	0.040	0.025	1.6	85.5	
								Bus_LM1_386	0.040	0.024	1.6	86.3	
								Bus_LM3_354	0.020	0.013	0.8	84.7	
Bus_LM1_383	20.000	84.373	-6.4	0.000	0.000	0.000	0.000	LO2 V UJUNG	0.000	0.000	0.0	0.0	
								Bus_LM1_384	-0.020	-0.012	0.8	85.1	
								Bus_LM3_358	0.020	0.013	0.8	84.4	
Bus_LM1_384	20.000	84.375	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_383	0.020	0.012	0.8	85.9	
								Bus_LM1_380	-0.040	-0.025	1.6	85.1	
								Bus_LM3_357	0.020	0.013	0.8	84.4	
Bus_LM1_385	20.000	84.366	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_386	-0.020	-0.013	0.8	84.4	
								Bus_LM3_360	0.020	0.013	0.8	84.4	
Bus_LM1_386	20.000	84.370	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_385	0.020	0.012	0.8	86.3	
								Bus_LM1_380	-0.040	-0.025	1.6	85.3	
								Bus_LM3_359	0.020	0.013	0.8	84.4	
Bus_LM3_3	20.000	94.083	-4.0	0.000	0.000	0.000	0.000	Bus_LM3_188	-3.932	-2.489	142.8	84.5	
								Bus_LM3_5	3.904	2.470	141.7	84.5	
								Bus_LM3_4	0.029	0.018	1.0	84.3	
Bus_LM3_4	0.400	91.459	-4.8	0.000	0.000	0.028	0.017	Bus_LM3_3	-0.028	-0.017	51.9	85.0	
Bus_LM3_5	20.000	93.818	-4.1	0.000	0.000	0.000	0.000	Bus_LM3_3	-3.896	-2.460	141.8	84.6	
								Bus_LM3_7	3.867	2.441	140.7	84.6	
								Bus_LM3_6	0.029	0.018	1.0	84.3	
Bus_LM3_6	0.400	91.188	-4.8	0.000	0.000	0.028	0.017	Bus_LM3_5	-0.028	-0.017	52.0	85.0	
Bus_LM3_7	20.000	93.555	-4.2	0.000	0.000	0.000	0.000	Bus_LM3_5	-3.859	-2.431	140.7	84.6	
								Bus_LM3_9	3.831	2.413	139.7	84.6	
								Bus_LM3_8	0.028	0.018	1.0	84.3	
Bus_LM3_8	0.400	90.920	-4.9	0.000	0.000	0.028	0.017	Bus_LM3_7	-0.028	-0.017	52.1	85.0	
Bus_LM3_9	20.000	93.294	-4.2	0.000	0.000	0.000	0.000	Bus_LM3_7	-3.823	-2.402	139.7	84.7	
								Bus_LM3_11	3.794	2.384	138.7	84.7	
								Bus_LM3_10	0.028	0.018	1.0	84.3	
Bus_LM3_10	0.400	90.654	-5.0	0.000	0.000	0.028	0.017	Bus_LM3_9	-0.028	-0.017	52.2	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_11	20.000	93.035	-4.3	0.000	0.000	0.000	0.000	Bus_LM3_9	-3.787	-2.373	138.7	84.7	
								Bus_LM3_13	3.758	2.355	137.6	84.7	
								Bus_LM3_12	0.028	0.018	1.0	84.3	
Bus_LM3_12	0.400	90.389	-5.0	0.000	0.000	0.028	0.017	Bus_LM3_11	-0.028	-0.017	52.3	85.0	
Bus_LM3_13	20.000	92.778	-4.4	0.000	0.000	0.000	0.000	Bus_LM3_11	-3.750	-2.345	137.6	84.8	
								Bus_LM3_188_	3.742	2.340	137.3	84.8	
								Bus_LM3_14	0.008	0.005	0.3	84.6	
Bus_LM3_14	0.400	91.233	-4.8	0.000	0.000	0.008	0.005	Bus_LM3_13	-0.008	-0.005	15.3	85.0	
Bus_LM3_27	0.400	89.345	-5.3	0.000	0.000	0.028	0.017	Bus_LM3_36	-0.028	-0.017	52.7	85.0	
Bus_LM3_28	0.400	89.087	-5.4	0.000	0.000	0.028	0.017	Bus_LM3_35	-0.028	-0.017	52.8	85.0	
Bus_LM3_29	0.400	88.832	-5.5	0.000	0.000	0.028	0.017	Bus_LM3_34	-0.028	-0.017	52.9	85.0	
Bus_LM3_30	0.400	88.579	-5.5	0.000	0.000	0.028	0.017	Bus_LM3_33	-0.028	-0.017	53.0	85.0	
Bus_LM3_31	0.400	89.692	-5.2	0.000	0.000	0.008	0.005	Bus_LM3_32	-0.008	-0.005	15.5	85.0	
Bus_LM3_32	20.000	91.254	-4.8	0.000	0.000	0.000	0.000	Bus_LM3_41	0.028	0.017	1.0	85.8	
								Bus_LM3_33	-0.037	-0.022	1.4	85.6	
								Bus_LM3_31	0.008	0.005	0.3	84.6	
Bus_LM3_33	20.000	91.261	-4.8	0.000	0.000	0.000	0.000	Bus_LM3_32	0.037	0.021	1.3	86.8	
								Bus_LM3_34	-3.584	-2.208	133.2	85.1	
								Bus_LM3_63	3.520	2.169	130.8	85.1	
								Bus_LM3_30	0.028	0.018	1.1	84.3	
Bus_LM3_34	20.000	91.509	-4.7	0.000	0.000	0.000	0.000	Bus_LM3_33	3.591	2.218	133.2	85.1	
								Bus_LM3_35	-3.620	-2.236	134.2	85.1	
								Bus_LM3_29	0.028	0.018	1.1	84.3	
Bus_LM3_35	20.000	91.759	-4.6	0.000	0.000	0.000	0.000	Bus_LM3_34	3.627	2.245	134.2	85.0	
								Bus_LM3_36	-3.655	-2.263	135.3	85.0	
								Bus_LM3_28	0.028	0.018	1.1	84.3	
Bus_LM3_36	20.000	92.011	-4.6	0.000	0.000	0.000	0.000	Bus_LM3_35	3.663	2.273	135.2	85.0	
								Bus_LM3_37	-3.691	-2.291	136.3	85.0	
								Bus_LM3_27	0.028	0.018	1.1	84.3	
Bus_LM3_37	20.000	92.265	-4.5	0.000	0.000	0.000	0.000	Bus_LM3_188_	-3.727	-2.319	137.3	84.9	
								Bus_LM3_36	3.699	2.301	136.3	84.9	
								Bus_LM3_38	0.028	0.018	1.1	84.3	
Bus_LM3_38	0.400	89.604	-5.2	0.000	0.000	0.028	0.017	Bus_LM3_37	-0.028	-0.017	52.6	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_40	0.400	88.567	-5.5	0.000	0.000	0.028	0.017	Bus_LM3_41	-0.028	-0.017	53.0	85.0	
Bus_LM3_41	20.000	91.249	-4.8	0.000	0.000	0.000	0.000	Bus_LM3_32	-0.028	-0.018	1.1	84.3	
								Bus_LM3_40	0.028	0.018	1.1	84.3	
Bus_LM3_56	0.400	87.561	-5.8	0.000	0.000	0.045	0.028	Bus_LM3_69	-0.045	-0.028	88.0	85.0	
Bus_LM3_57	0.400	87.209	-5.9	0.000	0.000	0.028	0.017	Bus_LM3_68	-0.028	-0.017	53.6	85.0	
Bus_LM3_58	0.400	87.838	-5.7	0.000	0.000	0.045	0.028	Bus_LM3_67	-0.045	-0.028	87.8	85.0	
Bus_LM3_59	0.400	88.322	-5.6	0.000	0.000	0.020	0.013	Bus_LM3_66	-0.020	-0.013	39.1	85.0	
Bus_LM3_60	0.400	87.512	-5.8	0.000	0.000	0.015	0.010	Bus_LM3_65	-0.015	-0.010	29.9	85.0	
Bus_LM3_61	0.400	88.083	-5.7	0.000	0.000	0.028	0.017	Bus_LM3_64	-0.028	-0.017	53.2	85.0	
Bus_LM3_62	0.400	88.006	-5.7	0.000	0.000	0.015	0.010	Bus_LM3_63	-0.015	-0.010	29.8	85.0	
Bus_LM3_63	20.000	91.017	-4.8	0.000	0.000	0.000	0.000	Bus_LM3_33	-3.513	-2.160	130.8	85.2	
								Bus_LM3_64	3.497	2.150	130.2	85.2	
								Bus_LM3_62	0.016	0.010	0.6	84.2	
Bus_LM3_64	20.000	90.775	-4.9	0.000	0.000	0.000	0.000	Bus_LM3_63	-3.490	-2.141	130.2	85.2	
								Bus_LM3_65	3.462	2.123	129.1	85.3	
								Bus_LM3_61	0.028	0.018	1.1	84.3	
Bus_LM3_65	20.000	90.535	-5.0	0.000	0.000	0.000	0.000	Bus_LM3_64	-3.455	-2.114	129.1	85.3	
								Bus_LM3_66	3.439	2.103	128.5	85.3	
								Bus_LM3_60	0.016	0.010	0.6	84.2	
Bus_LM3_66	20.000	90.296	-5.0	0.000	0.000	0.000	0.000	Bus_LM3_65	-3.433	-2.095	128.6	85.4	
								Bus_LM3_67	3.412	2.081	127.8	85.4	
								Bus_LM3_59	0.021	0.013	0.8	84.5	
Bus_LM3_67	20.000	90.058	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_66	-3.405	-2.073	127.8	85.4	
								Bus_LM3_68	0.770	0.457	28.7	86.0	
								Bus_LM3_85	0.152	0.091	5.7	85.7	
								Bus_LM3_117	2.437	1.495	91.6	85.2	
								Bus_LM3_58	0.046	0.029	1.8	84.4	
Bus_LM3_68	20.000	89.919	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_67	-0.769	-0.457	28.7	86.0	
								Bus_LM3_69	0.741	0.439	27.6	86.0	
								Bus_LM3_57	0.028	0.018	1.1	84.3	
Bus_LM3_69	20.000	89.786	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_68	-0.740	-0.439	27.7	86.0	
								Bus_LM3_76	0.694	0.410	25.9	86.1	
								Bus_LM3_56	0.046	0.029	1.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_74	0.400	87.312	-5.8	0.000	0.000	0.045	0.028	Bus_LM3_77	-0.045	-0.028	88.2	85.0	
Bus_LM3_75	0.400	86.945	-5.9	0.000	0.000	0.027	0.017	Bus_LM3_76	-0.027	-0.017	53.7	85.0	
Bus_LM3_76	20.000	89.661	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_69	-0.693	-0.410	25.9	86.1	
								Bus_LM3_77	0.665	0.392	24.8	86.1	
								Bus_LM3_75	0.028	0.018	1.1	84.3	
Bus_LM3_77	20.000	89.541	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_76	-0.664	-0.392	24.9	86.1	
								Bus_LM3_80	0.618	0.363	23.1	86.2	
								Bus_LM3_74	0.046	0.029	1.8	84.4	
Bus_LM3_78	0.400	86.603	-6.0	0.000	0.000	0.027	0.017	Bus_LM3_81	-0.027	-0.017	53.8	85.0	
Bus_LM3_79	0.400	87.198	-5.8	0.000	0.000	0.045	0.028	Bus_LM3_80	-0.045	-0.028	88.3	85.0	
Bus_LM3_80	20.000	89.429	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_77	-0.617	-0.364	23.1	86.2	
								Bus_LM3_81	0.571	0.334	21.4	86.3	
								Bus_LM3_79	0.046	0.029	1.8	84.4	
Bus_LM3_81	20.000	89.326	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_80	-0.570	-0.335	21.4	86.2	
								Bus_LM3_84	0.542	0.317	20.3	86.3	
								Bus_LM3_78	0.028	0.018	1.1	84.3	
Bus_LM3_82	0.400	87.810	-5.7	0.000	0.000	0.045	0.028	Bus_LM3_85	-0.045	-0.028	87.8	85.0	
Bus_LM3_83	0.400	86.993	-5.8	0.000	0.000	0.045	0.028	Bus_LM3_84	-0.045	-0.028	88.4	85.0	
Bus_LM3_84	20.000	89.228	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_81	-0.542	-0.318	20.3	86.3	
								Bus_LM3_140	0.496	0.288	18.5	86.4	
								Bus_LM3_83	0.046	0.029	1.8	84.4	
Bus_LM3_85	20.000	90.031	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_67	-0.152	-0.092	5.7	85.5	
								Bus_LM3_88	0.106	0.063	4.0	85.9	
								Bus_LM3_82	0.046	0.029	1.8	84.4	
Bus_LM3_86	0.400	87.287	-5.9	0.000	0.000	0.028	0.017	Bus_LM3_89	-0.028	-0.017	53.5	85.0	
Bus_LM3_87	0.400	86.976	-6.0	0.000	0.000	0.015	0.010	Bus_LM3_88	-0.015	-0.010	30.0	85.0	
Bus_LM3_88	20.000	90.011	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_85	-0.106	-0.064	4.0	85.5	
								Bus_LM3_89	0.090	0.054	3.4	85.7	
								Bus_LM3_87	0.016	0.010	0.6	84.2	
Bus_LM3_89	20.000	89.995	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_88	-0.090	-0.055	3.4	85.3	
								Bus_LM3_96	0.062	0.037	2.3	85.7	
								Bus_LM3_86	0.028	0.018	1.1	84.3	
Bus_LM3_94	0.400	87.754	-5.7	0.000	0.000	0.045	0.028	Bus_LM3_97	-0.045	-0.028	87.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_95	0.400	86.947	-6.0	0.000	0.000	0.015	0.010	Bus_LM3_96	-0.015	-0.010	30.0	85.0	
Bus_LM3_96	20.000	89.984	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_89	-0.062	-0.038	2.3	85.0	
								Bus_LM3_97	0.046	0.028	1.7	85.3	
								Bus_LM3_95	0.016	0.010	0.6	84.2	
Bus_LM3_97	20.000	89.975	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_96	-0.046	-0.029	1.8	84.4	
								Bus_LM3_94	0.046	0.029	1.8	84.4	
Bus_LM3_108	0.400	86.849	-6.0	0.000	0.000	0.015	0.010	Bus_LM3_117	-0.015	-0.010	30.0	85.0	
Bus_LM3_109	0.400	87.493	-5.8	0.000	0.000	0.045	0.028	Bus_LM3_116	-0.045	-0.028	88.1	85.0	
Bus_LM3_110	0.400	87.327	-5.9	0.000	0.000	0.045	0.028	Bus_LM3_115	-0.045	-0.028	88.2	85.0	
Bus_LM3_111	0.400	86.355	-6.2	0.000	0.000	0.015	0.009	Bus_LM3_114	-0.015	-0.009	30.1	85.0	
Bus_LM3_112	0.400	87.022	-6.0	0.000	0.000	0.045	0.028	Bus_LM3_113	-0.045	-0.028	88.4	85.0	
Bus_LM3_113	20.000	89.256	-5.3	0.000	0.000	0.000	0.000	LM3 V UJUNG	2.072	1.260	78.4	85.4	
								Bus_LM3_114	-2.118	-1.289	80.2	85.4	
								Bus_LM3_112	0.046	0.029	1.8	84.4	
Bus_LM3_114	20.000	89.405	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_113	2.121	1.292	80.2	85.4	
								Bus_LM3_115	-2.136	-1.302	80.8	85.4	
								Bus_LM3_111	0.016	0.010	0.6	84.2	
Bus_LM3_115	20.000	89.556	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_114	2.139	1.305	80.8	85.4	
								Bus_LM3_116	-2.319	-1.414	87.6	85.4	
								Bus_LM3_137	0.134	0.080	5.0	85.9	
								Bus_LM3_110	0.046	0.029	1.8	84.4	
Bus_LM3_116	20.000	89.718	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_115	2.322	1.418	87.5	85.3	
								Bus_LM3_117	-2.414	-1.477	91.1	85.3	
								Bus_LM3_109	0.046	0.029	1.8	84.4	
								Bus_LM3_362	0.046	0.029	1.8	84.4	
Bus_LM3_117	20.000	89.888	-5.1	0.000	0.000	0.000	0.000	Bus_LM3_67	-2.434	-1.491	91.7	85.3	
								Bus_LM3_116	2.418	1.481	91.1	85.3	
								Bus_LM3_108	0.016	0.010	0.6	84.2	
Bus_LM3_128	0.400	86.484	-6.1	0.000	0.000	0.015	0.010	Bus_LM3_137	-0.015	-0.010	30.1	85.0	
Bus_LM3_129	0.400	87.280	-5.9	0.000	0.000	0.045	0.028	Bus_LM3_136	-0.045	-0.028	88.2	85.0	
Bus_LM3_130	0.400	86.448	-6.1	0.000	0.000	0.015	0.010	Bus_LM3_135	-0.015	-0.010	30.1	85.0	
Bus_LM3_131	0.400	86.767	-6.0	0.000	0.000	0.027	0.017	Bus_LM3_134	-0.027	-0.017	53.8	85.0	
Bus_LM3_132	0.400	86.761	-6.0	0.000	0.000	0.027	0.017	Bus_LM3_133	-0.027	-0.017	53.8	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_133	20.000	89.481	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_134	-0.028	-0.018	1.1	84.3	
								Bus_LM3_132	0.028	0.018	1.1	84.3	
Bus_LM3_134	20.000	89.486	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_133	0.028	0.017	1.1	85.8	
								Bus_LM3_135	-0.056	-0.035	2.1	85.0	
								Bus_LM3_131	0.028	0.018	1.1	84.3	
Bus_LM3_135	20.000	89.497	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_134	0.056	0.034	2.1	85.8	
								Bus_LM3_136	-0.072	-0.044	2.7	85.4	
								Bus_LM3_130	0.016	0.010	0.6	84.2	
Bus_LM3_136	20.000	89.510	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_135	0.072	0.043	2.7	86.0	
								Bus_LM3_137	-0.118	-0.072	4.5	85.4	
								Bus_LM3_129	0.046	0.029	1.8	84.4	
Bus_LM3_137	20.000	89.531	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_115	-0.134	-0.081	5.0	85.6	
								Bus_LM3_136	0.118	0.071	4.4	85.7	
								Bus_LM3_128	0.016	0.010	0.6	84.2	
Bus_LM3_140	20.000	89.138	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_84	-0.495	-0.289	18.6	86.4	
								Bus_LM3_144	0.474	0.275	17.8	86.5	
								Bus_LM3_141	0.021	0.013	0.8	83.9	
Bus_LM3_141	0.400	85.078	-6.4	0.000	0.000	0.020	0.012	Bus_LM3_140	-0.020	-0.012	40.1	85.0	
Bus_LM3_144	20.000	89.052	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_140	-0.474	-0.276	17.8	86.4	
								Bus_LM3_146	0.453	0.263	17.0	86.5	
								Bus_LM3_145	0.021	0.013	0.8	84.5	
Bus_LM3_145	0.400	87.059	-5.8	0.000	0.000	0.020	0.013	Bus_LM3_144	-0.020	-0.013	39.4	85.0	
Bus_LM3_146	20.000	88.970	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_144	-0.453	-0.264	17.0	86.4	
								Bus_LM3_152	0.433	0.251	16.2	86.5	
								Bus_LM3_147	0.020	0.013	0.8	84.7	
Bus_LM3_147	0.400	87.982	-5.5	0.000	0.000	0.020	0.013	Bus_LM3_146	-0.020	-0.013	39.2	85.0	
Bus_LM3_152	20.000	88.892	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_146	-0.432	-0.252	16.2	86.4	
								Bus_LM1_189	0.165	0.096	6.2	86.5	
								Bus_LM1_193	0.267	0.156	10.0	86.3	
Bus_LM3_153	0.400	84.792	-6.4	0.000	0.000	0.020	0.012	Bus_LM1_189	-0.020	-0.012	40.2	85.0	
Bus_LM3_156	20.000	88.858	-5.2	0.000	0.000	0.000	0.000	Bus_LM1_189	-0.021	-0.013	0.8	84.5	
								Bus_LM3_157	0.021	0.013	0.8	84.5	
Bus_LM3_157	0.400	86.862	-5.8	0.000	0.000	0.020	0.013	Bus_LM3_156	-0.020	-0.013	39.5	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_159	0.400	81.855	-7.3	0.000	0.000	0.020	0.012	Bus_LM1_190	-0.020	-0.012	41.2	85.0	
Bus_LM3_160	20.000	88.825	-5.2	0.000	0.000	0.000	0.000	Bus_LM1_191	-0.082	-0.049	3.1	86.0	
								Bus_LM3_162	0.062	0.036	2.3	86.5	
								Bus_LM3_161	0.021	0.013	0.8	84.5	
Bus_LM3_161	0.400	86.827	-5.8	0.000	0.000	0.020	0.013	Bus_LM3_160	-0.020	-0.013	39.5	85.0	
Bus_LM3_162	20.000	88.813	-5.2	0.000	0.000	0.000	0.000	Bus_LM3_160	-0.062	-0.037	2.3	85.8	
								Bus_LM3_164	0.041	0.024	1.5	86.5	
								Bus_LM3_163	0.021	0.013	0.8	84.5	
Bus_LM3_163	0.400	86.816	-5.8	0.000	0.000	0.020	0.013	Bus_LM3_162	-0.020	-0.013	39.5	85.0	
Bus_LM3_164	20.000	88.806	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_162	-0.041	-0.025	1.6	85.5	
								Bus_LM3_166	0.021	0.012	0.8	86.5	
								Bus_LM3_165	0.021	0.013	0.8	84.5	
Bus_LM3_165	0.400	86.808	-5.8	0.000	0.000	0.020	0.013	Bus_LM3_164	-0.020	-0.013	39.5	85.0	
Bus_LM3_166	20.000	88.802	-5.3	0.000	0.000	0.000	0.000	Bus_LM3_164	-0.021	-0.013	0.8	84.5	
								Bus_LM3_167	0.021	0.013	0.8	84.5	
Bus_LM3_167	0.400	86.805	-5.8	0.000	0.000	0.020	0.013	Bus_LM3_166	-0.020	-0.013	39.5	85.0	
Bus_LM3_170	20.000	88.828	-5.2	0.000	0.000	0.000	0.000	Bus_LM1_190	-0.021	-0.013	0.8	84.5	
								Bus_LM3_171	0.021	0.013	0.8	84.5	
Bus_LM3_171	0.400	86.831	-5.8	0.000	0.000	0.020	0.013	Bus_LM3_170	-0.020	-0.013	39.5	85.0	
Bus_LM3_173	0.400	86.847	-5.8	0.000	0.000	0.020	0.013	Bus_LM1_193	-0.020	-0.013	39.5	85.0	
Bus_LM3_175	0.400	84.726	-6.4	0.000	0.000	0.020	0.012	Bus_LM1_195	-0.020	-0.012	40.2	85.0	
Bus_LM3_176	0.400	86.759	-5.8	0.000	0.000	0.020	0.013	Bus_LM1_196	-0.020	-0.013	39.5	85.0	
Bus_LM3_177	0.400	87.730	-5.6	0.000	0.000	0.020	0.013	Bus_LM1_197	-0.020	-0.013	39.2	85.0	
Bus_LM3_178	0.400	87.726	-5.6	0.000	0.000	0.020	0.013	Bus_LM1_198	-0.020	-0.013	39.2	85.0	
Bus_LM3_180	0.400	86.691	-5.9	0.000	0.000	0.020	0.013	Bus_LM1_200	-0.020	-0.013	39.6	85.0	
Bus_LM3_182	0.400	87.673	-5.6	0.000	0.000	0.020	0.013	Bus_LM1_202	-0.020	-0.013	39.3	85.0	
Bus_LM3_183	0.400	86.642	-5.9	0.000	0.000	0.020	0.013	Bus_LM1_203	-0.020	-0.013	39.6	85.0	
Bus_LM3_184	0.400	86.638	-5.9	0.000	0.000	0.020	0.013	Bus_LM1_204	-0.020	-0.013	39.6	85.0	
Bus_LM3_188	20.000	94.351	-4.0	0.000	0.000	0.000	0.000	B_LM3	-3.969	-2.518	143.8	84.4	
								Bus_LM3_3	3.941	2.500	142.8	84.4	
								Bus_LM3_189	0.029	0.018	1.0	84.3	
Bus_LM3_188_	20.000	92.521	-4.4	0.000	0.000	0.000	0.000	Bus_LM3_13	-3.735	-2.330	137.3	84.8	
								Bus_LM3_37	3.735	2.330	137.3	84.8	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_189	0.400	91.731	-4.7	0.000	0.000	0.028	0.017	Bus_LM3_188	-0.028	-0.017	51.8	85.0	
Bus_LM3_191	0.400	86.627	-5.9	0.000	0.000	0.020	0.013	Bus_LM1_211	-0.020	-0.013	39.6	85.0	
Bus_LM3_192	0.400	87.632	-5.6	0.000	0.000	0.020	0.013	Bus_LM1_210	-0.020	-0.013	39.3	85.0	
Bus_LM3_193	0.400	87.630	-5.6	0.000	0.000	0.020	0.013	Bus_LM1_209	-0.020	-0.013	39.3	85.0	
Bus_LM3_194	0.400	86.633	-5.9	0.000	0.000	0.020	0.013	Bus_LM1_212	-0.020	-0.013	39.6	85.0	
Bus_LM3_196	0.400	85.903	-6.3	0.000	0.000	0.015	0.009	Bus_LM1_215	-0.015	-0.009	30.3	85.0	
Bus_LM3_198	0.400	86.579	-6.1	0.000	0.000	0.045	0.028	Bus_LM1_217	-0.045	-0.028	88.7	85.0	
Bus_LM3_199	0.400	85.942	-6.3	0.000	0.000	0.027	0.017	Bus_LM1_218	-0.027	-0.017	54.1	85.0	
Bus_LM3_200	0.400	85.800	-6.3	0.000	0.000	0.027	0.017	Bus_LM1_219	-0.027	-0.017	54.2	85.0	
Bus_LM3_201	0.400	85.660	-6.4	0.000	0.000	0.027	0.017	Bus_LM1_220	-0.027	-0.017	54.2	85.0	
Bus_LM3_202	0.400	85.521	-6.4	0.000	0.000	0.027	0.017	Bus_LM1_221	-0.027	-0.017	54.3	85.0	
Bus_LM3_203	0.400	85.385	-6.4	0.000	0.000	0.027	0.017	Bus_LM1_222	-0.027	-0.017	54.4	85.0	
Bus_LM3_205	0.400	87.009	-6.0	0.000	0.000	0.020	0.013	Bus_LM1_224	-0.020	-0.013	39.5	85.0	
Bus_LM3_207	0.400	86.878	-6.0	0.000	0.000	0.020	0.013	Bus_LM1_226	-0.020	-0.013	39.5	85.0	
Bus_LM3_208	0.400	85.732	-6.3	0.000	0.000	0.020	0.012	Bus_LM1_227	-0.020	-0.012	39.9	85.0	
Bus_LM3_209	0.400	85.604	-6.4	0.000	0.000	0.020	0.012	Bus_LM1_228	-0.020	-0.012	39.9	85.0	
Bus_LM3_210	0.400	85.477	-6.4	0.000	0.000	0.020	0.012	Bus_LM1_229	-0.020	-0.012	39.9	85.0	
Bus_LM3_211	0.400	86.490	-6.1	0.000	0.000	0.020	0.013	Bus_LM1_230	-0.020	-0.013	39.6	85.0	
Bus_LM3_212	0.400	86.487	-6.1	0.000	0.000	0.020	0.013	Bus_LM1_231	-0.020	-0.013	39.6	85.0	
Bus_LM3_213	0.400	83.252	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_232	-0.020	-0.012	40.7	85.0	
Bus_LM3_214	0.400	85.233	-6.5	0.000	0.000	0.020	0.012	Bus_LM1_233	-0.020	-0.012	40.0	85.0	
Bus_LM3_217	0.400	84.995	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_236	-0.020	-0.012	40.1	85.0	
Bus_LM3_218	0.400	85.113	-6.5	0.000	0.000	0.020	0.012	Bus_LM1_237	-0.020	-0.012	40.1	85.0	
Bus_LM3_219	0.400	84.764	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_238	-0.020	-0.012	40.2	85.0	
Bus_LM3_220	0.400	84.879	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_239	-0.020	-0.012	40.1	85.0	
Bus_LM3_221	0.400	84.538	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_240	-0.020	-0.012	40.2	85.0	
Bus_LM3_222	0.400	84.650	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_241	-0.020	-0.012	40.2	85.0	
Bus_LM3_223	0.400	85.448	-6.4	0.000	0.000	0.020	0.012	Bus_LM1_242	-0.020	-0.012	40.0	85.0	
Bus_LM3_224	0.400	82.308	-7.4	0.000	0.000	0.020	0.012	Bus_LM1_243	-0.020	-0.012	41.0	85.0	
Bus_LM3_225	0.400	85.351	-6.5	0.000	0.000	0.020	0.012	Bus_LM1_244	-0.020	-0.012	40.0	85.0	
Bus_LM3_226	0.400	85.825	-6.3	0.000	0.000	0.020	0.012	Bus_LM1_245	-0.020	-0.012	39.8	85.0	
Bus_LM3_230	0.400	85.247	-6.5	0.000	0.000	0.020	0.012	Bus_LM1_249	-0.020	-0.012	40.0	85.0	
Bus_LM3_232	0.400	84.129	-6.8	0.000	0.000	0.020	0.012	Bus_LM1_251	-0.020	-0.012	40.4	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_234	0.400	84.022	-6.8	0.000	0.000	0.020	0.012	Bus_LM1_253	-0.020	-0.012	40.4	85.0	
Bus_LM3_235	0.400	83.916	-6.8	0.000	0.000	0.020	0.012	Bus_LM1_254	-0.020	-0.012	40.5	85.0	
Bus_LM3_236	0.400	83.811	-6.8	0.000	0.000	0.020	0.012	Bus_LM1_255	-0.020	-0.012	40.5	85.0	
Bus_LM3_239	0.400	84.643	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_258	-0.020	-0.012	40.2	85.0	
Bus_LM3_240	0.400	83.709	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_259	-0.020	-0.012	40.5	85.0	
Bus_LM3_245	0.400	81.268	-7.6	0.000	0.000	0.020	0.012	Bus_LM1_266	-0.020	-0.012	41.4	85.0	
Bus_LM3_246	0.400	83.313	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_265	-0.020	-0.012	40.7	85.0	
Bus_LM3_247	0.400	81.073	-7.6	0.000	0.000	0.020	0.012	Bus_LM1_264	-0.020	-0.012	41.5	85.0	
Bus_LM3_248	0.400	84.544	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_267	-0.020	-0.012	40.2	85.0	
Bus_LM3_251	0.400	83.210	-6.9	0.000	0.000	0.020	0.012	Bus_LM1_270	-0.020	-0.012	40.7	85.0	
Bus_LM3_252	0.400	84.245	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_271	-0.020	-0.012	40.3	85.0	
Bus_LM3_255	0.400	84.053	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_274	-0.020	-0.012	40.4	85.0	
Bus_LM3_256	0.400	84.168	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_275	-0.020	-0.012	40.4	85.0	
Bus_LM3_258	0.400	82.989	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_277	-0.020	-0.012	40.8	85.0	
Bus_LM3_261	0.400	82.969	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_282	-0.020	-0.012	40.8	85.0	
Bus_LM3_262	0.400	82.953	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_281	-0.020	-0.012	40.8	85.0	
Bus_LM3_263	0.400	82.941	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_284	-0.020	-0.012	40.8	85.0	
Bus_LM3_264	0.400	82.933	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_283	-0.020	-0.012	40.8	85.0	
Bus_LM3_265	0.400	82.930	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_286	-0.020	-0.012	40.8	85.0	
Bus_LM3_266	0.400	83.032	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_285	-0.020	-0.012	40.8	85.0	
Bus_LM3_268	0.400	83.028	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_288	-0.020	-0.012	40.8	85.0	
Bus_LM3_272	0.400	80.870	-7.6	0.000	0.000	0.020	0.012	Bus_LM1_293	-0.020	-0.012	41.5	85.0	
Bus_LM3_273	0.400	84.057	-6.6	0.000	0.000	0.020	0.012	Bus_LM1_292	-0.020	-0.012	40.4	85.0	
Bus_LM3_274	0.400	80.879	-7.6	0.000	0.000	0.020	0.012	Bus_LM1_294	-0.020	-0.012	41.5	85.0	
Bus_LM3_278	0.400	82.902	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_299	-0.020	-0.012	40.8	85.0	
Bus_LM3_279	0.400	80.682	-7.6	0.000	0.000	0.020	0.012	Bus_LM1_298	-0.020	-0.012	41.6	85.0	
Bus_LM3_280	0.400	82.970	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_300	-0.020	-0.012	40.8	85.0	
Bus_LM3_284	0.400	82.751	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_305	-0.020	-0.012	40.9	85.0	
Bus_LM3_285	0.400	82.747	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_304	-0.020	-0.012	40.9	85.0	
Bus_LM3_286	0.400	83.802	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_306	-0.020	-0.012	40.5	85.0	
Bus_LM3_288	0.400	82.710	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_309	-0.020	-0.012	40.9	85.0	
Bus_LM3_291	0.400	82.698	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_312	-0.020	-0.012	40.9	85.0	
Bus_LM3_292	0.400	82.702	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_313	-0.020	-0.012	40.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_297	0.400	77.437	-8.6	0.000	0.000	0.020	0.012	Bus_LM1_321	-0.020	-0.012	42.9	85.0	
Bus_LM3_298	0.400	77.424	-8.6	0.000	0.000	0.020	0.012	Bus_LM1_320	-0.020	-0.012	42.9	85.0	
Bus_LM3_299	0.400	83.663	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_319	-0.020	-0.012	40.5	85.0	
Bus_LM3_300	0.400	83.659	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_318	-0.020	-0.012	40.5	85.0	
Bus_LM3_305	0.400	82.606	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_330	-0.020	-0.012	40.9	85.0	
Bus_LM3_306	0.400	82.558	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_329	-0.020	-0.012	40.9	85.0	
Bus_LM3_307	0.400	80.352	-7.7	0.000	0.000	0.020	0.012	Bus_LM1_328	-0.020	-0.012	41.7	85.0	
Bus_LM3_308	0.400	82.468	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_327	-0.020	-0.012	41.0	85.0	
Bus_LM3_313	0.400	82.441	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_338	-0.020	-0.012	41.0	85.0	
Bus_LM3_314	0.400	77.202	-8.6	0.000	0.000	0.020	0.012	Bus_LM1_337	-0.020	-0.012	43.0	85.0	
Bus_LM3_315	0.400	82.397	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_336	-0.020	-0.012	41.0	85.0	
Bus_LM3_316	0.400	82.381	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_335	-0.020	-0.012	41.0	85.0	
Bus_LM3_321	0.400	83.408	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_344	-0.020	-0.012	40.6	85.0	
Bus_LM3_322	0.400	82.369	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_343	-0.020	-0.012	41.0	85.0	
Bus_LM3_323	0.400	82.312	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_345	-0.020	-0.012	41.0	85.0	
Bus_LM3_324	0.400	83.404	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_346	-0.020	-0.012	40.6	85.0	
Bus_LM3_331	0.400	80.287	-7.7	0.000	0.000	0.020	0.012	Bus_LM1_358	-0.020	-0.012	41.7	85.0	
Bus_LM3_332	0.400	82.433	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_357	-0.020	-0.012	41.0	85.0	
Bus_LM3_333	0.400	82.421	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_356	-0.020	-0.012	41.0	85.0	
Bus_LM3_334	0.400	82.413	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_355	-0.020	-0.012	41.0	85.0	
Bus_LM3_335	0.400	82.409	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_354	-0.020	-0.012	41.0	85.0	
Bus_LM3_336	0.400	82.421	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_353	-0.020	-0.012	41.0	85.0	
Bus_LM3_338	0.400	82.399	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_361	-0.020	-0.012	41.0	85.0	
Bus_LM3_339	0.400	83.425	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_362	-0.020	-0.012	40.6	85.0	
Bus_LM3_343	0.400	81.071	-7.4	0.000	0.000	0.016	0.010	Bus_LM1_368	-0.016	-0.010	33.2	85.0	
Bus_LM3_344	0.400	82.352	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_367	-0.020	-0.012	41.0	85.0	
Bus_LM3_345	0.400	83.395	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_366	-0.020	-0.012	40.6	85.0	
Bus_LM3_350	0.400	80.182	-7.7	0.000	0.000	0.020	0.012	Bus_LM1_377	-0.020	-0.012	41.8	85.0	
Bus_LM3_351	0.400	82.333	-7.0	0.000	0.000	0.020	0.012	Bus_LM1_376	-0.020	-0.012	41.0	85.0	
Bus_LM3_352	0.400	82.322	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_375	-0.020	-0.012	41.0	85.0	
Bus_LM3_354	0.400	83.351	-6.7	0.000	0.000	0.020	0.012	Bus_LM1_380	-0.020	-0.012	40.6	85.0	
Bus_LM3_357	0.400	82.301	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_384	-0.020	-0.012	41.0	85.0	
Bus_LM3_358	0.400	82.299	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_383	-0.020	-0.012	41.0	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_LM3_359	0.400	82.296	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_386	-0.020	-0.012	41.0	85.0	
Bus_LM3_360	0.400	82.292	-7.1	0.000	0.000	0.020	0.012	Bus_LM1_385	-0.020	-0.012	41.0	85.0	
Bus_LM3_362	0.400	87.493	-5.8	0.000	0.000	0.045	0.028	Bus_LM3_116	-0.045	-0.028	88.1	85.0	
Bus_MR1_GMP1	0.400	100.220	-4.4	0.000	0.000	0.030	0.018	Bus_MR1_GMP2	-0.030	-0.018	50.5	85.0	
Bus_MR1_GMP2	20.000	102.771	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP94	-1.839	-1.126	60.6	85.3	
								Bus_MR1_GMP92	1.809	1.107	59.6	85.3	
								Bus_MR1_GMP1	0.030	0.019	1.0	84.4	
Bus_MR1_GMP5	0.400	99.545	-4.4	0.000	0.000	0.030	0.018	Bus_MR1_GMP6	-0.030	-0.018	50.7	85.0	
Bus_MR1_GMP6	20.000	102.107	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP92	-1.780	-1.090	59.0	85.3	
								Bus_MR1_GMP8	1.750	1.071	58.0	85.3	
								Bus_MR1_GMP5	0.030	0.019	1.0	84.4	
Bus_MR1_GMP7	0.400	98.841	-4.6	0.000	0.000	0.034	0.021	Bus_MR1_GMP8	-0.034	-0.021	58.1	85.0	
Bus_MR1_GMP8	20.000	101.781	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP6	-1.745	-1.069	58.0	85.3	
								Bus_MR1_GMP10	1.710	1.047	56.9	85.3	
								Bus_MR1_GMP7	0.035	0.022	1.2	84.3	
Bus_MR1_GMP9	0.400	98.516	-4.6	0.000	0.000	0.068	0.042	Bus_MR1_GMP10	-0.068	-0.042	116.5	85.0	
Bus_MR1_GMP10	20.000	101.463	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP8	-1.705	-1.044	56.9	85.3	
								Bus_MR1_GMP12	1.636	1.000	54.6	85.3	
								Bus_MR1_GMP9	0.069	0.044	2.3	84.3	
Bus_MR1_GMP11	0.400	98.393	-4.5	0.000	0.000	0.127	0.079	Bus_MR1_GMP12	-0.127	-0.079	218.6	85.0	
Bus_MR1_GMP12	20.000	101.157	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP10	-1.631	-0.998	54.6	85.3	
								Bus_MR1_GMP14	1.502	0.916	50.2	85.4	
								Bus_MR1_GMP11	0.129	0.082	4.4	84.3	
Bus_MR1_GMP13	0.400	97.918	-4.6	0.000	0.000	0.034	0.021	Bus_MR1_GMP14	-0.034	-0.021	58.5	85.0	
Bus_MR1_GMP14	20.000	100.876	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP12	-1.498	-0.914	50.2	85.4	
								Bus_MR1_GMP16	1.464	0.892	49.1	85.4	
								Bus_MR1_GMP13	0.034	0.022	1.2	84.3	
Bus_MR1_GMP15	0.400	97.638	-4.6	0.000	0.000	0.034	0.021	Bus_MR1_GMP16	-0.034	-0.021	58.6	85.0	
Bus_MR1_GMP16	20.000	100.601	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP14	-1.460	-0.891	49.1	85.4	
								Bus_MR1_GMP18	1.425	0.869	47.9	85.4	
								Bus_MR1_GMP15	0.034	0.022	1.2	84.3	
Bus_MR1_GMP17	0.400	97.364	-4.6	0.000	0.000	0.034	0.021	Bus_MR1_GMP18	-0.034	-0.021	58.7	85.0	
Bus_MR1_GMP18	20.000	100.332	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP16	-1.422	-0.868	47.9	85.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_MR1_GMP20	1.387	0.846	46.8	85.4	
								Bus_MR1_GMP17	0.034	0.022	1.2	84.3	
Bus_MR1_GMP19	0.400	97.097	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP20	-0.067	-0.042	117.6	85.0	
Bus_MR1_GMP20	20.000	100.070	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP18	-1.384	-0.845	46.8	85.4	
								Bus_MR1_GMP22	1.315	0.801	44.4	85.4	
								Bus_MR1_GMP19	0.069	0.044	2.4	84.3	
Bus_MR1_GMP21	0.400	96.843	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP22	-0.034	-0.021	58.9	85.0	
Bus_MR1_GMP22	20.000	99.821	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP20	-1.312	-0.800	44.4	85.4	
								Bus_MR1_GMP24	1.278	0.778	43.3	85.4	
								Bus_MR1_GMP21	0.034	0.022	1.2	84.3	
Bus_MR1_GMP23	0.400	96.596	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP24	-0.034	-0.021	59.0	85.0	
Bus_MR1_GMP24	20.000	99.579	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP22	-1.275	-0.777	43.3	85.4	
								Bus_MR1_GMP26	0.606	0.369	20.6	85.4	
								Bus_MR1_GMP55	0.635	0.387	21.5	85.4	
								Bus_MR1_GMP23	0.034	0.022	1.2	84.3	
Bus_MR1_GMP25	0.400	96.478	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP26	-0.067	-0.042	118.0	85.0	
Bus_MR1_GMP26	20.000	99.463	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP24	-0.605	-0.369	20.6	85.3	
								Bus_MR1_GMP28	0.537	0.326	18.2	85.5	
								Bus_MR1_GMP25	0.069	0.044	2.4	84.3	
Bus_MR1_GMP27	0.400	96.374	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP28	-0.067	-0.042	118.1	85.0	
Bus_MR1_GMP28	20.000	99.361	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP26	-0.536	-0.327	18.2	85.4	
								Bus_MR1_GMP30	0.021	0.012	0.7	86.5	
								Bus_MR1_GMP32	0.446	0.270	15.2	85.5	
								Bus_MR1_GMP27	0.069	0.044	2.4	84.3	
Bus_MR1_GMP29	0.400	95.601	-4.9	0.000	0.000	0.021	0.013	Bus_MR1_GMP30	-0.021	-0.013	37.1	85.0	
Bus_MR1_GMP30	20.000	99.357	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP28	-0.021	-0.014	0.7	84.1	
								Bus_MR1_GMP29	0.021	0.014	0.7	84.1	
Bus_MR1_GMP31	0.400	96.287	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP32	-0.067	-0.042	118.2	85.0	
Bus_MR1_GMP32	20.000	99.276	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP28	-0.446	-0.271	15.2	85.4	
								Bus_MR1_GMP34	0.377	0.228	12.8	85.6	
								Bus_MR1_GMP31	0.068	0.044	2.4	84.3	
Bus_MR1_GMP33	0.400	96.214	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP34	-0.033	-0.021	59.1	85.0	
Bus_MR1_GMP34	20.000	99.205	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP32	-0.377	-0.229	12.8	85.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_MR1_GMP36	0.343	0.207	11.7	85.6	
								Bus_MR1_GMP33	0.034	0.022	1.2	84.3	
Bus_MR1_GMP35	0.400	96.148	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP36	-0.033	-0.021	59.1	85.0	
Bus_MR1_GMP36	20.000	99.139	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP34	-0.342	-0.208	11.7	85.5	
								Bus_MR1_GMP38	0.308	0.186	10.5	85.6	
								Bus_MR1_GMP35	0.034	0.022	1.2	84.3	
Bus_MR1_GMP37	0.400	96.088	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP38	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP38	20.000	99.080	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP36	-0.308	-0.188	10.5	85.4	
								Bus_MR1_GMP49	0.137	0.083	4.7	85.4	
								Bus_MR1_GMP86	0.137	0.082	4.7	85.7	
								Bus_MR1_GMP37	0.034	0.022	1.2	84.3	
Bus_MR1_GMP43	20.000	99.035	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP86	-0.103	-0.063	3.5	85.3	
								Bus_MR1_GMP45	0.068	0.041	2.3	85.7	
								Bus_MR1_GMP44	0.034	0.022	1.2	84.3	
Bus_MR1_GMP44	0.400	96.041	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP43	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP45	20.000	99.022	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP43	-0.068	-0.042	2.3	85.0	
								Bus_MR1_GMP47	0.034	0.021	1.2	85.7	
								Bus_MR1_GMP46	0.034	0.022	1.2	84.3	
Bus_MR1_GMP46	0.400	96.028	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP45	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP47	20.000	99.015	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP45	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP48	0.034	0.022	1.2	84.3	
Bus_MR1_GMP48	0.400	96.021	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP47	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP49	20.000	99.054	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP38	-0.137	-0.085	4.7	85.0	
								Bus_MR1_GMP51	0.068	0.041	2.3	85.7	
								Bus_MR1_GMP50	0.068	0.044	2.4	84.3	
Bus_MR1_GMP50	0.400	96.061	-4.7	0.000	0.000	0.067	0.041	Bus_MR1_GMP49	-0.067	-0.041	118.3	85.0	
Bus_MR1_GMP51	20.000	99.041	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP49	-0.068	-0.042	2.3	85.0	
								Bus_MR1_GMP53	0.034	0.021	1.2	85.7	
								Bus_MR1_GMP52	0.034	0.022	1.2	84.3	
Bus_MR1_GMP52	0.400	96.047	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP51	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP53	20.000	99.034	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP51	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP54	0.034	0.022	1.2	84.3	
Bus_MR1_GMP54	0.400	96.041	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP53	-0.033	-0.021	59.2	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
Bus_MR1_GMP55	20.000	99.474	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP24	-0.634	-0.388	21.6	85.3	
								Bus_MR1_GMP57	0.069	0.042	2.3	85.0	
								Bus_MR1_GMP59	0.069	0.042	2.3	85.0	
								Bus_MR1_GMP61	0.034	0.021	1.2	85.8	
								Bus_MR1_GMP63	0.034	0.021	1.2	85.8	
								Bus_MR1_GMP65	0.103	0.064	3.5	84.8	
								Bus_MR1_GMP97	0.257	0.154	8.7	85.9	
								Bus_MR1_GMP56	0.069	0.044	2.4	84.3	
Bus_MR1_GMP56	0.400	96.489	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP55	-0.067	-0.042	118.0	85.0	
Bus_MR1_GMP57	20.000	99.461	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.069	-0.044	2.4	84.3	
								Bus_MR1_GMP58	0.069	0.044	2.4	84.3	
Bus_MR1_GMP58	0.400	96.476	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP57	-0.067	-0.042	118.0	85.0	
Bus_MR1_GMP59	20.000	99.461	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.069	-0.044	2.4	84.3	
								Bus_MR1_GMP60	0.069	0.044	2.4	84.3	
Bus_MR1_GMP60	0.400	96.476	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP59	-0.067	-0.042	118.0	85.0	
Bus_MR1_GMP61	20.000	99.468	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP62	0.034	0.022	1.2	84.3	
Bus_MR1_GMP62	0.400	96.483	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP61	-0.034	-0.021	59.0	85.0	
Bus_MR1_GMP63	20.000	99.468	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.034	-0.022	1.2	84.3	
								Bus_MR1_GMP64	0.034	0.022	1.2	84.3	
Bus_MR1_GMP64	0.400	96.483	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP63	-0.034	-0.021	59.0	85.0	
Bus_MR1_GMP65	20.000	99.454	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP55	-0.103	-0.066	3.5	84.3	
								Bus_MR1_GMP66	0.103	0.066	3.5	84.3	
Bus_MR1_GMP66	0.400	96.660	-4.7	0.000	0.000	0.101	0.062	Bus_MR1_GMP65	-0.101	-0.062	176.8	85.0	
Bus_MR1_GMP72	20.000	99.383	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP97	-0.223	-0.134	7.6	85.6	
								Bus_MR1_GMP74	0.189	0.112	6.4	85.9	
								Bus_MR1_GMP73	0.034	0.022	1.2	84.3	
Bus_MR1_GMP73	0.400	96.396	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP72	-0.034	-0.021	59.0	85.0	
Bus_MR1_GMP74	20.000	99.347	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP72	-0.188	-0.114	6.4	85.6	
								Bus_MR1_GMP76	0.154	0.092	5.2	85.9	
								Bus_MR1_GMP75	0.034	0.022	1.2	84.3	
Bus_MR1_GMP75	0.400	96.360	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP74	-0.034	-0.021	59.1	85.0	
Bus_MR1_GMP76	20.000	99.318	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP74	-0.154	-0.093	5.2	85.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_MR1_GMP78	0.120	0.071	4.1	86.0	
								Bus_MR1_GMP77	0.034	0.022	1.2	84.3	
Bus_MR1_GMP77	0.400	96.330	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP76	-0.034	-0.021	59.1	85.0	
Bus_MR1_GMP78	20.000	99.295	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP76	-0.120	-0.073	4.1	85.5	
								Bus_MR1_GMP80	0.103	0.062	3.5	85.8	
								Bus_MR1_GMP79	0.017	0.011	0.6	84.3	
Bus_MR1_GMP79	0.400	96.307	-4.7	0.000	0.000	0.017	0.010	Bus_MR1_GMP78	-0.017	-0.010	29.5	85.0	
Bus_MR1_GMP80	20.000	99.276	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP78	-0.103	-0.063	3.5	85.3	
								Bus_MR1_GMP82	0.069	0.041	2.3	85.8	
								Bus_MR1_GMP81	0.034	0.022	1.2	84.3	
Bus_MR1_GMP81	0.400	96.287	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP80	-0.034	-0.021	59.1	85.0	
Bus_MR1_GMP82	20.000	99.263	-3.9	0.000	0.000	0.000	0.000	MR1 V UJUNG	0.000	-0.001	0.0	0.0	
								Bus_MR1_GMP80	-0.068	-0.042	2.3	85.0	
								Bus_MR1_GMP83	0.068	0.044	2.4	84.3	
Bus_MR1_GMP83	0.400	96.274	-4.7	0.000	0.000	0.067	0.042	Bus_MR1_GMP82	-0.067	-0.042	118.2	85.0	
Bus_MR1_GMP86	20.000	99.054	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP43	0.103	0.062	3.5	85.7	
								Bus_MR1_GMP38	-0.137	-0.083	4.7	85.4	
								Bus_MR1_GMP87	0.034	0.022	1.2	84.3	
Bus_MR1_GMP87	0.400	96.061	-4.7	0.000	0.000	0.033	0.021	Bus_MR1_GMP86	-0.033	-0.021	59.2	85.0	
Bus_MR1_GMP92	20.000	102.437	-3.8	0.000	0.000	0.000	0.000	Bus_MR1_GMP6	1.786	1.093	59.0	85.3	
								Bus_MR1_GMP2	-1.803	-1.104	59.6	85.3	
								Bus_MR1_GMP93	0.017	0.011	0.6	84.3	
Bus_MR1_GMP93	0.400	99.509	-4.5	0.000	0.000	0.017	0.011	Bus_MR1_GMP92	-0.017	-0.011	29.0	85.0	
Bus_MR1_GMP94	20.000	103.110	-3.7	0.000	0.000	0.000	0.000	GI MARISA	-1.845	-1.129	60.5	85.3	
								Bus_MR1_GMP2	1.845	1.129	60.5	85.3	
Bus_MR1_GMP97	20.000	99.425	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP72	0.223	0.133	7.5	85.9	
								Bus_MR1_GMP55	-0.257	-0.155	8.7	85.7	
								Bus_MR1_GMP98	0.034	0.022	1.2	84.3	
Bus_MR1_GMP98	0.400	96.440	-4.7	0.000	0.000	0.034	0.021	Bus_MR1_GMP97	-0.034	-0.021	59.0	85.0	
B_AG2_GK7	20.000	94.846	-3.9	0.000	0.000	0.000	0.000	GH MARISA	3.987	2.501	143.3	84.7	
								GI MARISA	-3.987	-2.501	143.3	84.7	
*B_GI_MARISA	150.000	100.000	0.0	15.214	10.914	0.000	0.000	GI MARISA	15.214	10.914	72.1	81.3	
B_LM3	20.000	94.620	-3.9	0.000	0.000	0.000	0.000	GH MARISA	-3.977	-2.529	143.8	84.4	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								Bus_LM3_188	3.977	2.529	143.8	84.4	
B_LMT1_GMT1	20.000	84.486	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT3	-0.071	-0.046	2.9	83.9	
								B_LMT1_GMT2	0.071	0.046	2.9	83.9	
B_LMT1_GMT2	0.400	80.824	-8.5	0.000	0.000	0.069	0.043	B_LMT1_GMT1	-0.069	-0.043	144.6	85.0	
B_LMT1_GMT3	20.000	84.497	-7.4	0.000	0.000	0.000	0.000	B_MR6_GMT130	-0.335	-0.198	13.3	86.0	
								B_LMT1_GMT1	0.071	0.045	2.9	84.3	
								B_LMT1_GMT9	0.264	0.153	10.4	86.5	
B_LMT1_GMT7	0.400	81.440	-8.3	0.000	0.000	0.029	0.018	B_LMT1_GMT8	-0.029	-0.018	59.5	85.0	
B_LMT1_GMT8	20.000	84.452	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT9	-0.029	-0.019	1.2	84.1	
								B_LMT1_GMT7	0.029	0.019	1.2	84.1	
B_LMT1_GMT9	20.000	84.457	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT8	0.029	0.018	1.2	85.0	
								B_LMT1_GMT3	-0.263	-0.154	10.4	86.4	
								B_LMT1_GMT21	0.234	0.136	9.2	86.5	
B_LMT1_GMT16	0.400	83.600	-7.6	0.000	0.000	0.008	0.005	B_LMT1_GMT17	-0.008	-0.005	16.2	85.0	
B_LMT1_GMT17	20.000	84.419	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT21	-0.008	-0.005	0.3	84.8	
								B_LMT1_GMT16	0.008	0.005	0.3	84.8	
B_LMT1_GMT18	0.400	83.481	-7.7	0.000	0.000	0.018	0.011	B_LMT1_GMT19	-0.018	-0.011	35.7	85.0	
B_LMT1_GMT19	20.000	84.383	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT20	-0.018	-0.011	0.7	84.7	
								B_LMT1_GMT18	0.018	0.011	0.7	84.7	
B_LMT1_GMT20	20.000	84.385	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT19	0.018	0.010	0.7	86.2	
								B_LMT1_GMT21	-0.226	-0.132	9.0	86.3	
								B_LMT1_GMT27	0.208	0.122	8.3	86.3	
B_LMT1_GMT21	20.000	84.420	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT17	0.008	0.004	0.3	87.9	
								B_LMT1_GMT9	-0.234	-0.136	9.3	86.4	
								B_LMT1_GMT20	0.226	0.132	8.9	86.4	
B_LMT1_GMT25	0.400	84.022	-7.5	0.000	0.000	0.003	0.002	B_LMT1_GMT28	-0.003	-0.002	6.5	85.0	
B_LMT1_GMT27	20.000	84.353	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT20	-0.208	-0.123	8.3	86.1	
								B_LMT1_GMT28	0.029	0.017	1.1	86.9	
								B_LMT1_GMT35	0.179	0.106	7.1	86.0	
B_LMT1_GMT28	20.000	84.348	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT27	-0.029	-0.017	1.2	86.1	
								B_LMT1_GMT34	0.026	0.015	1.0	86.2	
								B_LMT1_GMT25	0.003	0.002	0.1	84.9	
B_LMT1_GMT32	0.400	81.670	-8.2	0.000	0.000	0.025	0.016	B_LMT1_GMT33	-0.025	-0.016	52.8	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT33	20.000	84.340	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT34	-0.026	-0.017	1.1	84.2	
								B_LMT1_GMT32	0.026	0.017	1.1	84.2	
B_LMT1_GMT34	20.000	84.344	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT33	0.026	0.016	1.0	85.2	
								B_LMT1_GMT28	-0.026	-0.016	1.0	85.2	
B_LMT1_GMT35	20.000	84.325	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT27	-0.179	-0.107	7.1	85.9	
								B_LMT1_GMT42	0.070	0.042	2.8	85.9	
								B_LMT1_GMT61	0.108	0.065	4.3	85.9	
B_LMT1_GMT39	0.400	83.566	-7.6	0.000	0.000	0.007	0.004	B_LMT1_GMT41	-0.007	-0.004	14.6	85.0	
B_LMT1_GMT41	20.000	84.303	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT42	-0.070	-0.043	2.8	85.1	
								B_LMT1_GMT46	0.063	0.039	2.5	85.2	
								B_LMT1_GMT39	0.007	0.005	0.3	84.8	
B_LMT1_GMT42	20.000	84.314	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT35	-0.070	-0.043	2.8	85.5	
								B_LMT1_GMT41	0.070	0.043	2.8	85.5	
B_LMT1_GMT45	0.400	82.345	-8.0	0.000	0.000	0.037	0.023	B_LMT1_GMT46	-0.037	-0.023	77.1	85.0	
B_LMT1_GMT46	20.000	84.293	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT41	-0.063	-0.040	2.6	84.8	
								B_LMT1_GMT48	0.025	0.015	1.0	85.3	
								B_LMT1_GMT45	0.038	0.024	1.5	84.4	
B_LMT1_GMT47	0.400	81.703	-8.2	0.000	0.000	0.025	0.015	B_LMT1_GMT48	-0.025	-0.015	51.1	85.0	
B_LMT1_GMT48	20.000	84.289	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT46	-0.025	-0.016	1.0	84.3	
								B_LMT1_GMT47	0.025	0.016	1.0	84.3	
B_LMT1_GMT55	0.400	84.046	-7.5	0.000	0.000	0.002	0.001	B_LMT1_GMT60	-0.002	-0.001	4.8	85.0	
B_LMT1_GMT56	0.400	81.859	-8.1	0.000	0.000	0.023	0.014	B_LMT1_GMT59	-0.023	-0.014	47.8	85.0	
B_LMT1_GMT57	0.400	82.817	-7.8	0.000	0.000	0.028	0.017	B_LMT1_GMT58	-0.028	-0.017	57.2	85.0	
B_LMT1_GMT58	20.000	84.261	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT59	-0.082	-0.051	3.3	85.1	
								B_LMT1_GMT69	0.054	0.033	2.2	85.4	
								B_LMT1_GMT57	0.028	0.018	1.1	84.6	
B_LMT1_GMT59	20.000	84.274	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT58	0.082	0.050	3.3	85.4	
								B_LMT1_GMT60	-0.106	-0.065	4.3	85.2	
								B_LMT1_GMT56	0.024	0.015	1.0	84.3	
B_LMT1_GMT60	20.000	84.291	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT61	-0.108	-0.066	4.3	85.4	
								B_LMT1_GMT59	0.106	0.065	4.2	85.4	
								B_LMT1_GMT55	0.002	0.001	0.1	84.9	
B_LMT1_GMT61	20.000	84.308	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT35	-0.108	-0.065	4.3	85.6	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT1_GMT60	0.108	0.065	4.3	85.6	
B_LMT1_GMT66	0.400	81.922	-8.1	0.000	0.000	0.044	0.028	B_LMT1_GMT69	-0.044	-0.028	92.2	85.0	
B_LMT1_GMT67	0.400	83.802	-7.5	0.000	0.000	0.009	0.005	B_LMT1_GMT68	-0.009	-0.005	17.8	85.0	
B_LMT1_GMT68	20.000	84.251	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT69	-0.009	-0.006	0.4	84.9	
								B_LMT1_GMT67	0.009	0.006	0.4	84.9	
B_LMT1_GMT69	20.000	84.253	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT58	-0.054	-0.034	2.2	84.9	
								B_LMT1_GMT68	0.009	0.005	0.3	87.7	
								B_LMT1_GMT66	0.045	0.029	1.8	84.3	
B_LMT1_GMT75	0.400	81.845	-8.1	0.000	0.000	0.024	0.015	B_LMT1_GMT79	-0.024	-0.015	49.4	85.0	
B_LMT1_GMT76	0.400	83.015	-7.8	0.000	0.000	0.013	0.008	B_LMT1_GMT77	-0.013	-0.008	26.1	85.0	
B_LMT1_GMT77	20.000	84.333	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT78	-0.013	-0.008	0.5	84.6	
								B_LMT1_GMT76	0.013	0.008	0.5	84.6	
B_LMT1_GMT78	20.000	84.335	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT77	0.013	0.007	0.5	86.6	
								B_LMT1_GMT79	-0.058	-0.035	2.3	85.7	
								B_LMT1_GMT86	0.045	0.028	1.8	85.5	
B_LMT1_GMT79	20.000	84.344	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT80	-0.083	-0.050	3.3	85.6	
								B_LMT1_GMT78	0.058	0.034	2.3	86.2	
								B_LMT1_GMT75	0.024	0.016	1.0	84.3	
B_LMT1_GMT80	20.000	84.357	-7.4	0.000	0.000	0.000	0.000	B_MR6_GMT130	-1.227	-0.745	49.1	85.5	
								B_LMT1_GMT79	0.083	0.049	3.3	85.9	
								B_LMT1_GMT92	1.144	0.695	45.8	85.4	
B_LMT1_GMT84	0.400	81.991	-8.1	0.000	0.000	0.044	0.028	B_LMT1_GMT85	-0.044	-0.028	92.1	85.0	
B_LMT1_GMT85	20.000	84.321	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT86	-0.045	-0.029	1.8	84.3	
								B_LMT1_GMT84	0.045	0.029	1.8	84.3	
B_LMT1_GMT86	20.000	84.328	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT85	0.045	0.028	1.8	84.9	
								B_LMT1_GMT78	-0.045	-0.028	1.8	84.9	
B_LMT1_GMT90	0.400	82.520	-7.9	0.000	0.000	0.016	0.010	B_LMT1_GMT91	-0.016	-0.010	32.8	85.0	
B_LMT1_GMT91	20.000	84.175	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT92	-0.016	-0.010	0.7	84.5	
								B_LMT1_GMT90	0.016	0.010	0.7	84.5	
B_LMT1_GMT92	20.000	84.177	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT91	0.016	0.010	0.6	86.1	
								B_LMT1_GMT80	-1.142	-0.694	45.8	85.4	
								B_LMT1_GMT103	1.125	0.685	45.2	85.4	
B_LMT1_GMT98	0.400	80.999	-8.3	0.000	0.000	0.056	0.035	B_LMT1_GMT101	-0.056	-0.035	117.8	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT99	0.400	83.882	-7.4	0.000	0.000	0.005	0.003	B_LMT1_GMT100	-0.005	-0.003	9.7	85.0	
B_LMT1_GMT100	20.000	83.979	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT101	-0.005	-0.003	0.2	85.0	
								B_LMT1_GMT99	0.005	0.003	0.2	85.0	
B_LMT1_GMT101	20.000	83.980	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT100	0.005	0.002	0.2	90.1	
								B_LMT1_GMT102	-0.062	-0.039	2.5	84.6	
								B_LMT1_GMT98	0.058	0.037	2.4	84.1	
B_LMT1_GMT102	20.000	83.990	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT101	0.062	0.039	2.5	85.0	
								B_LMT1_GMT103	-0.062	-0.039	2.5	85.0	
B_LMT1_GMT103	20.000	84.000	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT102	0.062	0.038	2.5	85.4	
								B_LMT1_GMT92	-1.123	-0.684	45.2	85.4	
								B_LMT1_GMT109	1.061	0.646	42.7	85.4	
B_LMT1_GMT107	0.400	80.357	-8.5	0.000	0.000	0.065	0.040	B_LMT1_GMT108	-0.065	-0.040	136.9	85.0	
B_LMT1_GMT108	20.000	83.822	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT109	-0.067	-0.043	2.7	84.0	
								B_LMT1_GMT107	0.067	0.043	2.7	84.0	
B_LMT1_GMT109	20.000	83.833	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT108	0.067	0.042	2.7	84.4	
								B_LMT1_GMT103	-1.059	-0.645	42.7	85.4	
								B_LMT1_GMT110	0.992	0.603	40.0	85.5	
B_LMT1_GMT110	20.000	83.676	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT109	-0.990	-0.602	40.0	85.4	
								B_LMT1_GMT121	0.470	0.278	18.8	86.1	
								B_LMT1_GMT199	0.074	0.045	3.0	85.3	
								B_LMT1_GMT209	0.447	0.279	18.2	84.8	
B_LMT1_GMT116	20.000	83.585	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT121	-0.107	-0.067	4.3	84.8	
								B_LMT1_GMT120	0.107	0.067	4.3	84.8	
B_LMT1_GMT117	0.400	81.212	-8.2	0.000	0.000	0.071	0.044	B_LMT1_GMT120	-0.071	-0.044	149.1	85.0	
B_LMT1_GMT118	0.400	81.814	-8.0	0.000	0.000	0.033	0.021	B_LMT1_GMT119	-0.033	-0.021	69.2	85.0	
B_LMT1_GMT119	20.000	83.563	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT120	-0.034	-0.021	1.4	84.5	
								B_LMT1_GMT118	0.034	0.021	1.4	84.5	
B_LMT1_GMT120	20.000	83.568	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT116	-0.107	-0.067	4.4	84.6	
								B_LMT1_GMT119	0.034	0.021	1.4	85.2	
								B_LMT1_GMT117	0.073	0.046	3.0	84.3	
B_LMT1_GMT121	20.000	83.602	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT110	-0.469	-0.278	18.8	86.0	
								B_LMT1_GMT116	0.107	0.066	4.3	85.1	
								B_LMT1_GMT127	0.363	0.212	14.5	86.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT125	0.400	78.907	-8.9	0.000	0.000	0.042	0.026	B_LMT1_GMT126	-0.042	-0.026	91.3	85.0	
B_LMT1_GMT126	20.000	83.538	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT127	-0.044	-0.029	1.8	83.6	
								B_LMT1_GMT125	0.044	0.029	1.8	83.6	
B_LMT1_GMT127	20.000	83.545	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT126	0.044	0.028	1.8	84.2	
								B_LMT1_GMT121	-0.362	-0.213	14.5	86.2	
								B_LMT1_GMT130	0.318	0.185	12.7	86.5	
B_LMT1_GMT128	0.400	83.082	-7.6	0.000	0.000	0.016	0.010	B_LMT1_GMT129	-0.016	-0.010	32.6	85.0	
B_LMT1_GMT129	20.000	83.493	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT130	-0.016	-0.010	0.7	84.9	
								B_LMT1_GMT128	0.016	0.010	0.7	84.9	
B_LMT1_GMT130	20.000	83.496	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT129	0.016	0.009	0.6	86.4	
								B_LMT1_GMT127	-0.318	-0.185	12.7	86.4	
								B_LMT1_GMT142	0.302	0.176	12.1	86.4	
B_LMT1_GMT137	0.400	81.905	-7.9	0.000	0.000	0.029	0.018	B_LMT1_GMT138	-0.029	-0.018	60.9	85.0	
B_LMT1_GMT138	20.000	83.443	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT142	-0.030	-0.019	1.2	84.6	
								B_LMT1_GMT137	0.030	0.019	1.2	84.6	
B_LMT1_GMT139	0.400	82.619	-7.7	0.000	0.000	0.015	0.009	B_LMT1_GMT140	-0.015	-0.009	31.1	85.0	
B_LMT1_GMT140	20.000	83.403	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT141	-0.015	-0.010	0.6	84.8	
								B_LMT1_GMT139	0.015	0.010	0.6	84.8	
B_LMT1_GMT141	20.000	83.406	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT140	0.015	0.009	0.6	86.4	
								B_LMT1_GMT142	-0.272	-0.159	10.9	86.4	
								B_LMT1_GMT148	0.257	0.150	10.3	86.4	
B_LMT1_GMT142	20.000	83.448	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT138	0.030	0.018	1.2	85.4	
								B_LMT1_GMT130	-0.302	-0.176	12.1	86.3	
								B_LMT1_GMT141	0.272	0.158	10.9	86.4	
B_LMT1_GMT146	0.400	80.314	-8.4	0.000	0.000	0.057	0.035	B_LMT1_GMT147	-0.057	-0.035	120.2	85.0	
B_LMT1_GMT147	20.000	83.356	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT148	-0.058	-0.038	2.4	84.1	
								B_LMT1_GMT146	0.058	0.038	2.4	84.1	
B_LMT1_GMT148	20.000	83.365	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT147	0.058	0.037	2.4	84.5	
								B_LMT1_GMT141	-0.257	-0.150	10.3	86.3	
								B_LMT1_GMT157	0.198	0.114	7.9	86.8	
B_LMT1_GMT152	20.000	83.321	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT157	-0.083	-0.050	3.4	85.7	
								B_LMT1_GMT154	0.083	0.050	3.4	85.7	
B_LMT1_GMT153	0.400	81.683	-7.9	0.000	0.000	0.031	0.019	B_LMT1_GMT154	-0.031	-0.019	64.3	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT154	20.000	83.308	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT152	-0.083	-0.051	3.4	85.4	
								B_LMT1_GMT155	0.052	0.031	2.1	85.9	
								B_LMT1_GMT153	0.031	0.020	1.3	84.5	
B_LMT1_GMT155	20.000	83.300	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT154	-0.052	-0.031	2.1	85.4	
								B_LMT1_GMT163	0.027	0.015	1.1	86.5	
								B_LMT1_GMT156	0.025	0.016	1.0	84.2	
B_LMT1_GMT156	0.400	80.690	-8.3	0.000	0.000	0.025	0.015	B_LMT1_GMT155	-0.025	-0.015	51.6	85.0	
B_LMT1_GMT157	20.000	83.334	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT152	0.083	0.049	3.3	86.0	
								B_LMT1_GMT148	-0.198	-0.114	7.9	86.6	
								B_LMT1_GMT171	0.115	0.065	4.6	87.1	
B_LMT1_GMT162	0.400	82.218	-7.8	0.000	0.000	0.010	0.006	B_LMT1_GMT163	-0.010	-0.006	21.3	85.0	
B_LMT1_GMT163	20.000	83.296	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT155	-0.027	-0.016	1.1	85.5	
								B_LMT1_GMT164	0.016	0.010	0.6	86.1	
								B_LMT1_GMT162	0.010	0.007	0.4	84.7	
B_LMT1_GMT164	20.000	83.293	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT163	-0.016	-0.010	0.7	84.5	
								B_LMT1_GMT165	0.016	0.010	0.7	84.5	
B_LMT1_GMT165	0.400	81.625	-8.0	0.000	0.000	0.016	0.010	B_LMT1_GMT164	-0.016	-0.010	33.0	85.0	
B_LMT1_GMT169	0.400	82.821	-7.6	0.000	0.000	0.005	0.003	B_LMT1_GMT170	-0.005	-0.003	9.8	85.0	
B_LMT1_GMT170	20.000	83.316	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT171	-0.005	-0.003	0.2	84.9	
								B_LMT1_GMT169	0.005	0.003	0.2	84.9	
B_LMT1_GMT171	20.000	83.316	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT170	0.005	0.002	0.2	89.9	
								B_LMT1_GMT157	-0.115	-0.066	4.6	86.9	
								B_LMT1_GMT183	0.110	0.063	4.4	86.8	
B_LMT1_GMT179	0.400	80.245	-8.4	0.000	0.000	0.014	0.009	B_LMT1_GMT180	-0.014	-0.009	30.1	85.0	
B_LMT1_GMT180	20.000	83.290	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT181	-0.015	-0.009	0.6	84.1	
								B_LMT1_GMT179	0.015	0.009	0.6	84.1	
B_LMT1_GMT181	20.000	83.292	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT180	0.015	0.009	0.6	85.8	
								B_LMT1_GMT183	-0.045	-0.028	1.8	85.0	
								B_LMT1_GMT182	0.031	0.019	1.3	84.5	
B_LMT1_GMT182	0.400	81.709	-7.9	0.000	0.000	0.030	0.019	B_LMT1_GMT181	-0.030	-0.019	62.7	85.0	
B_LMT1_GMT183	20.000	83.299	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT171	-0.110	-0.064	4.4	86.5	
								B_LMT1_GMT181	0.045	0.027	1.8	85.5	
								B_LMT1_GMT189	0.065	0.036	2.6	87.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT187	0.400	81.772	-7.9	0.000	0.000	0.046	0.029	B_LMT1_GMT188	-0.046	-0.029	95.6	85.0	
B_LMT1_GMT188	20.000	83.282	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT189	-0.047	-0.029	1.9	84.6	
								B_LMT1_GMT187	0.047	0.029	1.9	84.6	
B_LMT1_GMT189	20.000	83.289	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT188	0.047	0.029	1.9	85.1	
								B_LMT1_GMT183	-0.065	-0.037	2.6	86.9	
								B_LMT1_GMT192	0.018	0.008	0.7	91.2	
B_LMT1_GMT190	0.400	82.459	-7.7	0.000	0.000	0.004	0.002	B_LMT1_GMT191	-0.004	-0.002	8.2	85.0	
B_LMT1_GMT191	20.000	83.286	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT192	-0.004	-0.003	0.2	84.8	
								B_LMT1_GMT190	0.004	0.003	0.2	84.8	
B_LMT1_GMT192	20.000	83.286	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT191	0.004	0.002	0.2	90.8	
								B_LMT1_GMT189	-0.018	-0.009	0.7	89.9	
								B_LMT1_GMT195	0.014	0.007	0.6	89.7	
B_LMT1_GMT193	0.400	81.783	-7.9	0.000	0.000	0.014	0.009	B_LMT1_GMT194	-0.014	-0.009	29.7	85.0	
B_LMT1_GMT194	20.000	83.282	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT195	-0.014	-0.009	0.6	84.6	
								B_LMT1_GMT193	0.014	0.009	0.6	84.6	
B_LMT1_GMT195	20.000	83.284	-7.4	0.000	0.000	0.000	0.000	LMT1 V UJUNG	0.000	-0.001	0.0	0.0	
								B_LMT1_GMT194	0.014	0.008	0.6	86.3	
								B_LMT1_GMT192	-0.014	-0.008	0.6	88.0	
B_LMT1_GMT199	20.000	83.664	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT110	-0.074	-0.046	3.0	84.9	
								B_LMT1_GMT201	0.074	0.046	3.0	84.9	
B_LMT1_GMT200	0.400	81.352	-8.1	0.000	0.000	0.044	0.027	B_LMT1_GMT201	-0.044	-0.027	91.0	85.0	
B_LMT1_GMT201	20.000	83.652	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT199	-0.074	-0.046	3.0	84.6	
								B_LMT1_GMT202	0.029	0.018	1.2	85.0	
								B_LMT1_GMT200	0.044	0.028	1.8	84.3	
B_LMT1_GMT202	20.000	83.648	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT201	-0.029	-0.019	1.2	84.1	
								B_LMT1_GMT203	0.029	0.019	1.2	84.1	
B_LMT1_GMT203	0.400	80.614	-8.4	0.000	0.000	0.028	0.018	B_LMT1_GMT202	-0.028	-0.018	59.9	85.0	
B_LMT1_GMT207	0.400	81.253	-8.1	0.000	0.000	0.044	0.027	B_LMT1_GMT208	-0.044	-0.027	92.7	85.0	
B_LMT1_GMT208	20.000	83.597	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT209	-0.045	-0.029	1.9	84.3	
								B_LMT1_GMT207	0.045	0.029	1.9	84.3	
B_LMT1_GMT209	20.000	83.605	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT208	0.045	0.028	1.8	84.9	
								B_LMT1_GMT110	-0.446	-0.279	18.2	84.8	
								B_LMT1_GMT215	0.401	0.251	16.3	84.8	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT1_GMT213	0.400	80.634	-8.3	0.000	0.000	0.055	0.034	B_LMT1_GMT215	-0.055	-0.034	114.9	85.0	
B_LMT1_GMT215	20.000	83.540	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT209	-0.401	-0.252	16.4	84.7	
								B_LMT1_GMT219	0.345	0.216	14.1	84.8	
								B_LMT1_GMT213	0.056	0.036	2.3	84.2	
B_LMT1_GMT218	0.400	80.880	-8.2	0.000	0.000	0.049	0.030	B_LMT1_GMT219	-0.049	-0.030	103.0	85.0	
B_LMT1_GMT219	20.000	83.485	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT215	-0.345	-0.216	14.1	84.7	
								B_LMT1_GMT225	0.294	0.184	12.0	84.8	
								B_LMT1_GMT218	0.050	0.032	2.1	84.2	
B_LMT1_GMT223	0.400	79.778	-8.6	0.000	0.000	0.034	0.021	B_LMT1_GMT224	-0.034	-0.021	72.1	85.0	
B_LMT1_GMT224	20.000	83.432	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT225	-0.035	-0.023	1.4	83.9	
								B_LMT1_GMT223	0.035	0.023	1.4	83.9	
B_LMT1_GMT225	20.000	83.438	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT224	0.035	0.022	1.4	84.7	
								B_LMT1_GMT219	-0.294	-0.185	12.0	84.7	
								B_LMT1_GMT228	0.259	0.163	10.6	84.7	
B_LMT1_GMT226	0.400	80.564	-8.3	0.000	0.000	0.053	0.033	B_LMT1_GMT227	-0.053	-0.033	111.6	85.0	
B_LMT1_GMT227	20.000	83.388	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT228	-0.054	-0.035	2.2	84.2	
								B_LMT1_GMT226	0.054	0.035	2.2	84.2	
B_LMT1_GMT228	20.000	83.397	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT227	0.054	0.034	2.2	84.6	
								B_LMT1_GMT225	-0.259	-0.163	10.6	84.6	
								B_LMT1_GMT238	0.205	0.129	8.4	84.6	
B_LMT1_GMT235	0.400	81.314	-8.1	0.000	0.000	0.039	0.024	B_LMT1_GMT238	-0.039	-0.024	81.1	85.0	
B_LMT1_GMT236	0.400	80.468	-8.3	0.000	0.000	0.027	0.017	B_LMT1_GMT237	-0.027	-0.017	56.7	85.0	
B_LMT1_GMT237	20.000	83.337	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT238	-0.165	-0.105	6.8	84.3	
								B_LMT1_GMT245	0.138	0.088	5.7	84.4	
								B_LMT1_GMT236	0.028	0.018	1.1	84.2	
B_LMT1_GMT238	20.000	83.364	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT228	-0.205	-0.130	8.4	84.5	
								B_LMT1_GMT237	0.165	0.105	6.8	84.5	
								B_LMT1_GMT235	0.040	0.025	1.6	84.4	
B_LMT1_GMT243	0.400	77.563	-9.2	0.000	0.000	0.052	0.032	B_LMT1_GMT244	-0.052	-0.032	113.0	85.0	
B_LMT1_GMT244	20.000	83.303	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT245	-0.073	-0.045	3.0	84.9	
								B_LMT1_GMT252	0.019	0.009	0.7	89.5	
								B_LMT1_GMT243	0.054	0.036	2.3	83.3	
B_LMT1_GMT245	20.000	83.315	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT237	-0.138	-0.088	5.7	84.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT1_GMT244	0.073	0.045	3.0	85.3	
								B_LMT1_GMT246	0.065	0.043	2.7	83.0	
B_LMT1_GMT246	0.400	76.448	-9.6	0.000	0.000	0.061	0.038	B_LMT1_GMT245	-0.061	-0.038	135.0	85.0	
B_LMT1_GMT250	0.400	80.254	-8.4	0.000	0.000	0.014	0.009	B_LMT1_GMT251	-0.014	-0.009	30.1	85.0	
B_LMT1_GMT251	20.000	83.298	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT252	-0.015	-0.009	0.6	84.1	
								B_LMT1_GMT250	0.015	0.009	0.6	84.1	
B_LMT1_GMT252	20.000	83.300	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT251	0.015	0.009	0.6	85.8	
								B_LMT1_GMT244	-0.019	-0.010	0.7	88.3	
								B_LMT1_GMT255	0.004	0.001	0.1	95.9	
B_LMT1_GMT253	0.400	82.472	-7.7	0.000	0.000	0.004	0.002	B_LMT1_GMT254	-0.004	-0.002	8.2	85.0	
B_LMT1_GMT254	20.000	83.299	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT255	-0.004	-0.003	0.2	84.8	
								B_LMT1_GMT253	0.004	0.003	0.2	84.8	
B_LMT1_GMT255	20.000	83.300	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT254	0.004	0.002	0.2	90.8	
								B_LMT1_GMT252	-0.004	-0.002	0.2	90.8	
B_LMT2_1	20.000	84.576	-7.4	0.000	0.000	0.000	0.000	GH TILAMUTA	-0.740	-0.413	28.9	87.3	
								B_LMT2_GMT1	0.740	0.413	28.9	87.3	
B_LMT2_GMT1	20.000	84.463	-7.4	0.000	0.000	0.000	0.000	B_LMT2_1	-0.740	-0.413	28.9	87.3	
								B_LMT2_GMT3	0.740	0.413	28.9	87.3	
B_LMT2_GMT2	0.400	81.765	-8.2	0.000	0.000	0.025	0.015	B_LMT2_GMT3	-0.025	-0.015	51.1	85.0	
B_LMT2_GMT3	20.000	84.350	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT1	-0.739	-0.413	29.0	87.3	
								B_LMT2_GMT7	0.713	0.397	27.9	87.4	
								B_LMT2_GMT2	0.025	0.016	1.0	84.3	
B_LMT2_GMT6	0.400	81.909	-8.1	0.000	0.000	0.044	0.028	B_LMT2_GMT7	-0.044	-0.028	92.2	85.0	
B_LMT2_GMT7	20.000	84.240	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT3	-0.713	-0.397	28.0	87.4	
								B_LMT2_GMT11	0.667	0.368	26.1	87.6	
								B_LMT2_GMT6	0.045	0.029	1.8	84.3	
B_LMT2_GMT10	0.400	83.317	-7.7	0.000	0.000	0.004	0.002	B_LMT2_GMT12	-0.004	-0.002	8.1	85.0	
B_LMT2_GMT11	20.000	84.138	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT7	-0.666	-0.368	26.1	87.5	
								B_LMT2_GMT12	0.004	0.002	0.2	90.9	
								B_LMT2_GMT16	0.662	0.366	26.0	87.5	
B_LMT2_GMT12	20.000	84.138	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT11	-0.004	-0.003	0.2	84.8	
								B_LMT2_GMT10	0.004	0.003	0.2	84.8	
B_LMT2_GMT16	20.000	84.037	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT11	-0.662	-0.366	26.0	87.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT2_GMT18	0.032	0.020	1.3	84.9	
								B_LMT2_GMT26	0.630	0.347	24.7	87.6	
B_LMT2_GMT17	0.400	80.748	-8.4	0.000	0.000	0.031	0.019	B_LMT2_GMT18	-0.031	-0.019	64.9	85.0	
B_LMT2_GMT18	20.000	84.032	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT16	-0.032	-0.020	1.3	84.1	
								B_LMT2_GMT17	0.032	0.020	1.3	84.1	
B_LMT2_GMT23	0.400	81.088	-8.3	0.000	0.000	0.027	0.017	B_LMT2_GMT26	-0.027	-0.017	56.4	85.0	
B_LMT2_GMT24	0.400	81.509	-8.2	0.000	0.000	0.044	0.028	B_LMT2_GMT25	-0.044	-0.028	92.5	85.0	
B_LMT2_GMT25	20.000	83.849	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT26	-0.601	-0.329	23.6	87.7	
								B_LMT2_GMT30	0.556	0.300	21.8	88.0	
								B_LMT2_GMT24	0.045	0.029	1.9	84.3	
B_LMT2_GMT26	20.000	83.941	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT16	-0.629	-0.347	24.7	87.6	
								B_LMT2_GMT25	0.602	0.329	23.6	87.7	
								B_LMT2_GMT23	0.028	0.018	1.1	84.2	
B_LMT2_GMT27	0.400	80.121	-8.6	0.000	0.000	0.034	0.021	B_LMT2_GMT30	-0.034	-0.021	71.9	85.0	
B_LMT2_GMT28	0.400	82.694	-7.7	0.000	0.000	0.010	0.006	B_LMT2_GMT29	-0.010	-0.006	19.6	85.0	
B_LMT2_GMT29	20.000	83.684	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT30	-0.520	-0.278	20.3	88.2	
								B_LMT2_GMT35	0.510	0.272	19.9	88.2	
								B_LMT2_GMT28	0.010	0.006	0.4	84.7	
B_LMT2_GMT30	20.000	83.764	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT25	-0.555	-0.301	21.8	87.9	
								B_LMT2_GMT29	0.520	0.278	20.3	88.2	
								B_LMT2_GMT27	0.035	0.023	1.4	83.9	
B_LMT2_GMT33	0.400	81.011	-8.2	0.000	0.000	0.024	0.015	B_LMT2_GMT34	-0.024	-0.015	49.8	85.0	
B_LMT2_GMT34	20.000	83.529	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT35	-0.509	-0.273	20.0	88.1	
								B_LMT2_GMT39	0.485	0.258	19.0	88.3	
								B_LMT2_GMT33	0.024	0.016	1.0	84.3	
B_LMT2_GMT35	20.000	83.607	-7.4	0.000	0.000	0.000	0.000	B_LMT2_GMT29	-0.510	-0.273	20.0	88.2	
								B_LMT2_GMT34	0.510	0.273	20.0	88.2	
B_LMT2_GMT39	20.000	83.455	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT34	-0.485	-0.258	19.0	88.3	
								B_LMT2_GMT41	0.003	0.001	0.1	92.3	
								B_LMT2_GMT45	0.481	0.257	18.9	88.2	
B_LMT2_GMT40	0.400	82.795	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT41	-0.003	-0.002	6.5	85.0	
B_LMT2_GMT41	20.000	83.454	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT39	-0.003	-0.002	0.1	84.8	
								B_LMT2_GMT40	0.003	0.002	0.1	84.8	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT44	0.400	79.990	-8.5	0.000	0.000	0.016	0.010	B_LMT2_GMT45	-0.016	-0.010	33.5	85.0	
B_LMT2_GMT45	20.000	83.381	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT39	-0.481	-0.257	18.9	88.2	
								B_LMT2_GMT47	0.465	0.246	18.2	88.3	
								B_LMT2_GMT44	0.016	0.010	0.7	84.0	
B_LMT2_GMT46	0.400	81.897	-7.9	0.000	0.000	0.013	0.008	B_LMT2_GMT47	-0.013	-0.008	28.0	85.0	
B_LMT2_GMT47	20.000	83.310	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT45	-0.464	-0.247	18.2	88.3	
								B_LMT2_GMT55	0.451	0.238	17.7	88.4	
								B_LMT2_GMT46	0.014	0.009	0.6	84.6	
B_LMT2_GMT52	0.400	80.544	-8.3	0.000	0.000	0.025	0.016	B_LMT2_GMT55	-0.025	-0.016	53.3	85.0	
B_LMT2_GMT53	0.400	80.130	-8.4	0.000	0.000	0.014	0.009	B_LMT2_GMT54	-0.014	-0.009	30.1	85.0	
B_LMT2_GMT54	20.000	83.177	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT55	-0.424	-0.223	16.6	88.6	
								B_LMT2_GMT59	0.410	0.213	16.0	88.7	
								B_LMT2_GMT53	0.015	0.009	0.6	84.1	
B_LMT2_GMT55	20.000	83.242	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT47	-0.450	-0.239	17.7	88.4	
								B_LMT2_GMT54	0.424	0.222	16.6	88.6	
								B_LMT2_GMT52	0.026	0.017	1.1	84.2	
B_LMT2_GMT59	20.000	83.115	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT54	-0.409	-0.214	16.0	88.7	
								B_LMT2_GMT61	0.005	0.002	0.2	89.9	
								B_LMT2_GMT67	0.404	0.211	15.8	88.6	
B_LMT2_GMT60	0.400	82.619	-7.7	0.000	0.000	0.005	0.003	B_LMT2_GMT61	-0.005	-0.003	9.8	85.0	
B_LMT2_GMT61	20.000	83.114	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT59	-0.005	-0.003	0.2	84.9	
								B_LMT2_GMT60	0.005	0.003	0.2	84.9	
B_LMT2_GMT66	0.400	82.557	-7.7	0.000	0.000	0.005	0.003	B_LMT2_GMT67	-0.005	-0.003	9.8	85.0	
B_LMT2_GMT67	20.000	83.053	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT59	-0.404	-0.212	15.9	88.6	
								B_LMT2_GMT69	0.399	0.209	15.7	88.6	
								B_LMT2_GMT66	0.005	0.003	0.2	84.9	
B_LMT2_GMT68	0.400	82.496	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT69	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT69	20.000	82.992	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT67	-0.399	-0.209	15.7	88.6	
								B_LMT2_GMT70	0.397	0.208	15.6	88.6	
								B_LMT2_GMT68	0.002	0.001	0.1	84.9	
B_LMT2_GMT70	20.000	82.931	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT69	-0.396	-0.208	15.6	88.5	
								B_LMT2_GMT71	0.094	0.047	3.7	89.3	
								B_LMT2_GMT131	0.302	0.161	11.9	88.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT71	20.000	82.917	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT70	-0.094	-0.048	3.7	89.1	
								B_LMT2_GMT75	0.094	0.048	3.7	89.1	
B_LMT2_GMT75	20.000	82.903	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT71	-0.094	-0.049	3.7	88.8	
								B_LMT2_GMT77	0.004	0.002	0.2	90.8	
								B_LMT2_GMT81	0.090	0.047	3.5	88.7	
B_LMT2_GMT76	0.400	82.072	-7.8	0.000	0.000	0.004	0.002	B_LMT2_GMT77	-0.004	-0.002	8.2	85.0	
B_LMT2_GMT77	20.000	82.902	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT75	-0.004	-0.003	0.2	84.8	
								B_LMT2_GMT76	0.004	0.003	0.2	84.8	
B_LMT2_GMT81	20.000	82.889	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT75	-0.090	-0.048	3.6	88.5	
								B_LMT2_GMT83	0.003	0.001	0.1	92.3	
								B_LMT2_GMT93	0.087	0.046	3.4	88.3	
B_LMT2_GMT82	0.400	82.558	-7.6	0.000	0.000	0.003	0.002	B_LMT2_GMT83	-0.003	-0.002	6.5	85.0	
B_LMT2_GMT83	20.000	82.888	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT81	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT82	0.003	0.002	0.1	84.9	
B_LMT2_GMT90	0.400	79.979	-8.4	0.000	0.000	0.027	0.017	B_LMT2_GMT91	-0.027	-0.017	56.9	85.0	
B_LMT2_GMT91	20.000	82.860	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT92	-0.028	-0.018	1.1	84.2	
								B_LMT2_GMT90	0.028	0.018	1.1	84.2	
B_LMT2_GMT92	20.000	82.865	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT91	0.028	0.017	1.1	85.1	
								B_LMT2_GMT93	-0.071	-0.038	2.8	88.1	
								B_LMT2_GMT117	0.043	0.021	1.7	90.0	
B_LMT2_GMT93	20.000	82.875	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT81	-0.087	-0.047	3.4	88.1	
								B_LMT2_GMT92	0.071	0.037	2.8	88.5	
								B_LMT2_GMT95	0.016	0.009	0.6	86.3	
B_LMT2_GMT94	0.400	82.043	-7.8	0.000	0.000	0.016	0.010	B_LMT2_GMT95	-0.016	-0.010	32.9	85.0	
B_LMT2_GMT95	20.000	82.873	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT93	-0.016	-0.010	0.7	84.8	
								B_LMT2_GMT94	0.016	0.010	0.7	84.8	
B_LMT2_GMT108	0.400	82.104	-7.8	0.000	0.000	0.007	0.004	B_LMT2_GMT109	-0.007	-0.004	14.8	85.0	
B_LMT2_GMT109	20.000	82.851	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT116	-0.007	-0.005	0.3	84.8	
								B_LMT2_GMT108	0.007	0.005	0.3	84.8	
B_LMT2_GMT110	0.400	82.599	-7.6	0.000	0.000	0.002	0.001	B_LMT2_GMT111	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT111	20.000	82.846	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT115	-0.002	-0.001	0.1	84.9	
								B_LMT2_GMT110	0.002	0.001	0.1	84.9	
B_LMT2_GMT112	0.400	82.511	-7.6	0.000	0.000	0.003	0.002	B_LMT2_GMT113	-0.003	-0.002	6.6	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT113	20.000	82.841	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT114	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT112	0.003	0.002	0.1	84.9	
B_LMT2_GMT114	20.000	82.842	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT113	0.003	0.001	0.1	92.3	
								B_LMT2_GMT115	-0.031	-0.018	1.2	86.7	
								B_LMT2_GMT125	0.028	0.016	1.1	86.0	
B_LMT2_GMT115	20.000	82.847	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT111	0.002	0.001	0.1	94.4	
								B_LMT2_GMT114	0.031	0.017	1.2	87.4	
								B_LMT2_GMT116	-0.033	-0.018	1.3	88.0	
B_LMT2_GMT116	20.000	82.852	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT109	0.007	0.004	0.3	88.2	
								B_LMT2_GMT115	0.033	0.017	1.3	88.7	
								B_LMT2_GMT117	-0.040	-0.021	1.6	88.6	
B_LMT2_GMT117	20.000	82.858	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT92	-0.043	-0.022	1.7	89.4	
								B_LMT2_GMT116	0.040	0.020	1.6	89.2	
								B_LMT2_GMT119	0.003	0.001	0.1	92.3	
B_LMT2_GMT118	0.400	82.527	-7.6	0.000	0.000	0.003	0.002	B_LMT2_GMT119	-0.003	-0.002	6.5	85.0	
B_LMT2_GMT119	20.000	82.858	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT117	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT118	0.003	0.002	0.1	84.9	
B_LMT2_GMT123	0.400	79.951	-8.4	0.000	0.000	0.027	0.017	B_LMT2_GMT124	-0.027	-0.017	57.0	85.0	
B_LMT2_GMT124	20.000	82.833	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT125	-0.028	-0.018	1.1	84.2	
								B_LMT2_GMT123	0.028	0.018	1.1	84.2	
B_LMT2_GMT125	20.000	82.838	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT124	0.028	0.017	1.1	85.1	
								B_LMT2_GMT114	-0.028	-0.017	1.1	85.1	
B_LMT2_GMT130	0.400	82.555	-7.6	0.000	0.000	0.003	0.002	B_LMT2_GMT131	-0.003	-0.002	6.5	85.0	
B_LMT2_GMT131	20.000	82.885	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT70	-0.302	-0.161	11.9	88.2	
								B_LMT2_GMT133	0.299	0.159	11.8	88.3	
								B_LMT2_GMT130	0.003	0.002	0.1	84.9	
B_LMT2_GMT132	0.400	82.508	-7.6	0.000	0.000	0.006	0.004	B_LMT2_GMT133	-0.006	-0.004	13.1	85.0	
B_LMT2_GMT133	20.000	82.839	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT131	-0.299	-0.160	11.8	88.2	
								B_LMT2_GMT145	0.292	0.156	11.5	88.2	
								B_LMT2_GMT132	0.006	0.004	0.3	84.9	
B_LMT2_GMT145	20.000	82.794	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT133	-0.292	-0.156	11.6	88.2	
								B_LMT2_GMT147	0.012	0.007	0.5	86.7	
								B_LMT2_GMT153	0.280	0.149	11.1	88.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT146	0.400	81.541	-7.9	0.000	0.000	0.012	0.007	B_LMT2_GMT147	-0.012	-0.007	24.8	85.0	
B_LMT2_GMT147	20.000	82.792	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT145	-0.012	-0.008	0.5	84.6	
								B_LMT2_GMT146	0.012	0.008	0.5	84.6	
B_LMT2_GMT152	0.400	81.415	-8.0	0.000	0.000	0.013	0.008	B_LMT2_GMT153	-0.013	-0.008	26.5	85.0	
B_LMT2_GMT153	20.000	82.751	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT145	-0.280	-0.150	11.1	88.1	
								B_LMT2_GMT155	0.267	0.142	10.6	88.3	
								B_LMT2_GMT152	0.013	0.008	0.5	84.6	
B_LMT2_GMT154	0.400	81.878	-7.8	0.000	0.000	0.008	0.005	B_LMT2_GMT155	-0.008	-0.005	16.5	85.0	
B_LMT2_GMT155	20.000	82.710	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT153	-0.267	-0.142	10.6	88.2	
								B_LMT2_GMT159	0.259	0.137	10.2	88.3	
								B_LMT2_GMT154	0.008	0.005	0.3	84.8	
B_LMT2_GMT158	0.400	82.172	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT159	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT159	20.000	82.670	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT155	-0.259	-0.138	10.2	88.2	
								B_LMT2_GMT161	0.257	0.137	10.1	88.3	
								B_LMT2_GMT158	0.002	0.001	0.1	84.9	
B_LMT2_GMT160	20.000	82.630	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT161	0.000	0.000	0.0	0.0	
B_LMT2_GMT161	20.000	82.630	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT159	-0.256	-0.137	10.2	88.2	
								B_LMT2_GMT160	0.000	-0.001	0.0	0.0	
								B_LMT2_GMT168	0.256	0.138	10.2	88.1	
B_LMT2_GMT165	0.400	81.717	-7.8	0.000	0.000	0.008	0.005	B_LMT2_GMT166	-0.008	-0.005	16.5	85.0	
B_LMT2_GMT166	20.000	82.549	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT167	-0.008	-0.005	0.3	84.8	
								B_LMT2_GMT165	0.008	0.005	0.3	84.8	
B_LMT2_GMT167	20.000	82.551	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT166	0.008	0.004	0.3	87.8	
								B_LMT2_GMT168	-0.256	-0.139	10.2	87.9	
								B_LMT2_GMT181	0.248	0.135	9.9	87.9	
B_LMT2_GMT168	20.000	82.590	-7.5	0.000	0.000	0.000	0.000	B_LMT2_GMT161	-0.256	-0.138	10.2	88.0	
								B_LMT2_GMT167	0.256	0.138	10.2	88.0	
B_LMT2_GMT175	0.400	81.843	-7.8	0.000	0.000	0.013	0.008	B_LMT2_GMT176	-0.013	-0.008	26.4	85.0	
B_LMT2_GMT176	20.000	82.508	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT180	-0.013	-0.008	0.5	84.8	
								B_LMT2_GMT175	0.013	0.008	0.5	84.8	
B_LMT2_GMT177	0.400	82.344	-7.6	0.000	0.000	0.002	0.001	B_LMT2_GMT178	-0.002	-0.001	3.3	85.0	
B_LMT2_GMT178	20.000	82.510	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT179	-0.002	-0.001	0.1	85.0	
								B_LMT2_GMT177	0.002	0.001	0.1	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT179	20.000	82.510	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT178	0.002	0.000	0.1	97.8	
								B_LMT2_GMT180	-0.002	0.000	0.1	97.8	
B_LMT2_GMT180	20.000	82.510	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT176	0.013	0.007	0.5	86.7	
								B_LMT2_GMT179	0.002	0.000	0.1	-98.2	
								B_LMT2_GMT181	-0.014	-0.007	0.6	89.8	
B_LMT2_GMT181	20.000	82.512	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT180	0.014	0.006	0.6	91.4	
								B_LMT2_GMT167	-0.248	-0.135	9.9	87.8	
								B_LMT2_GMT193	0.234	0.129	9.3	87.6	
B_LMT2_GMT188	0.400	81.557	-7.8	0.000	0.000	0.009	0.005	B_LMT2_GMT189	-0.009	-0.005	18.2	85.0	
B_LMT2_GMT189	20.000	82.474	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT193	-0.009	-0.006	0.4	84.7	
								B_LMT2_GMT188	0.009	0.006	0.4	84.7	
B_LMT2_GMT190	0.400	79.543	-8.5	0.000	0.000	0.027	0.017	B_LMT2_GMT191	-0.027	-0.017	57.2	85.0	
B_LMT2_GMT191	20.000	82.436	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT192	-0.027	-0.018	1.1	84.1	
								B_LMT2_GMT190	0.027	0.018	1.1	84.1	
B_LMT2_GMT192	20.000	82.441	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT191	0.027	0.017	1.1	85.0	
								B_LMT2_GMT193	-0.225	-0.125	9.0	87.4	
								B_LMT2_GMT199	0.197	0.108	7.9	87.7	
B_LMT2_GMT193	20.000	82.476	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT189	0.009	0.005	0.4	87.5	
								B_LMT2_GMT192	0.225	0.124	9.0	87.5	
								B_LMT2_GMT181	-0.234	-0.129	9.3	87.5	
B_LMT2_GMT194	0.400	82.244	-7.6	0.000	0.000	0.001	0.000	B_LMT2_GMT195	-0.001	0.000	1.6	85.0	
B_LMT2_GMT195	20.000	82.410	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT199	-0.001	0.000	0.0	85.0	
								B_LMT2_GMT194	0.001	0.000	0.0	85.0	
B_LMT2_GMT196	0.400	82.047	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT197	-0.003	-0.002	6.6	85.0	
B_LMT2_GMT197	20.000	82.379	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT198	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT196	0.003	0.002	0.1	84.9	
B_LMT2_GMT198	20.000	82.379	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT197	0.003	0.001	0.1	92.2	
								B_LMT2_GMT199	-0.196	-0.109	7.9	87.4	
								B_LMT2_GMT205	0.193	0.108	7.8	87.3	
B_LMT2_GMT199	20.000	82.410	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT195	0.001	0.000	0.0	-98.2	
								B_LMT2_GMT198	0.196	0.109	7.9	87.5	
								B_LMT2_GMT192	-0.197	-0.109	7.9	87.6	
B_LMT2_GMT203	0.400	80.704	-8.1	0.000	0.000	0.031	0.019	B_LMT2_GMT204	-0.031	-0.019	64.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_LMT2_GMT204	20.000	82.344	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT205	-0.031	-0.020	1.3	84.5	
								B_LMT2_GMT203	0.031	0.020	1.3	84.5	
B_LMT2_GMT205	20.000	82.349	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT204	0.031	0.019	1.3	85.3	
								B_LMT2_GMT198	-0.193	-0.109	7.8	87.2	
								B_LMT2_GMT208	0.162	0.089	6.5	87.5	
B_LMT2_GMT206	0.400	79.948	-8.3	0.000	0.000	0.022	0.014	B_LMT2_GMT207	-0.022	-0.014	46.9	85.0	
B_LMT2_GMT207	20.000	82.320	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT208	-0.023	-0.014	0.9	84.3	
								B_LMT2_GMT206	0.023	0.014	0.9	84.3	
B_LMT2_GMT208	20.000	82.323	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT207	0.023	0.014	0.9	85.4	
								B_LMT2_GMT205	-0.162	-0.090	6.5	87.4	
								B_LMT2_GMT221	0.139	0.076	5.6	87.7	
B_LMT2_GMT215	0.400	79.651	-8.4	0.000	0.000	0.024	0.015	B_LMT2_GMT216	-0.024	-0.015	52.1	85.0	
B_LMT2_GMT216	20.000	82.286	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT217	-0.025	-0.016	1.0	84.2	
								B_LMT2_GMT215	0.025	0.016	1.0	84.2	
B_LMT2_GMT217	20.000	82.290	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT216	0.025	0.015	1.0	85.2	
								B_LMT2_GMT218	-0.025	-0.015	1.0	85.2	
B_LMT2_GMT218	20.000	82.294	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT221	-0.049	-0.030	2.0	85.7	
								B_LMT2_GMT217	0.025	0.015	1.0	86.2	
								B_LMT2_GMT220	0.024	0.015	1.0	85.3	
B_LMT2_GMT219	0.400	79.743	-8.4	0.000	0.000	0.024	0.015	B_LMT2_GMT220	-0.024	-0.015	50.3	85.0	
B_LMT2_GMT220	20.000	82.290	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT218	-0.024	-0.015	1.0	84.3	
								B_LMT2_GMT219	0.024	0.015	1.0	84.3	
B_LMT2_GMT221	20.000	82.302	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT218	0.049	0.029	2.0	86.2	
								B_LMT2_GMT208	-0.139	-0.077	5.6	87.5	
								B_LMT2_GMT233	0.025	0.013	1.0	88.2	
								B_LMT2_GMT251	0.065	0.035	2.6	88.2	
B_LMT2_GMT228	0.400	79.921	-8.3	0.000	0.000	0.022	0.014	B_LMT2_GMT229	-0.022	-0.014	46.9	85.0	
B_LMT2_GMT229	20.000	82.294	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT233	-0.023	-0.014	0.9	84.3	
								B_LMT2_GMT228	0.023	0.014	0.9	84.3	
B_LMT2_GMT230	0.400	82.048	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT231	-0.002	-0.001	4.9	85.0	
B_LMT2_GMT231	20.000	82.297	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT232	-0.002	-0.001	0.1	84.9	
								B_LMT2_GMT230	0.002	0.001	0.1	84.9	
B_LMT2_GMT232	20.000	82.297	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT231	0.002	0.001	0.1	94.3	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT2_GMT233	-0.002	-0.001	0.1	94.3	
B_LMT2_GMT233	20.000	82.298	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT229	0.023	0.014	0.9	85.4	
								B_LMT2_GMT232	0.002	0.000	0.1	99.7	
								B_LMT2_GMT221	-0.025	-0.014	1.0	87.3	
B_LMT2_GMT243	0.400	81.959	-7.7	0.000	0.000	0.003	0.002	B_LMT2_GMT244	-0.003	-0.002	6.6	85.0	
B_LMT2_GMT244	20.000	82.291	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT251	-0.003	-0.002	0.1	84.9	
								B_LMT2_GMT243	0.003	0.002	0.1	84.9	
B_LMT2_GMT245	0.400	80.978	-8.0	0.000	0.000	0.025	0.015	B_LMT2_GMT246	-0.025	-0.015	51.5	85.0	
B_LMT2_GMT246	20.000	82.278	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT250	-0.025	-0.016	1.0	84.6	
								B_LMT2_GMT245	0.025	0.016	1.0	84.6	
B_LMT2_GMT247	0.400	81.944	-7.7	0.000	0.000	0.002	0.001	B_LMT2_GMT248	-0.002	-0.001	3.3	85.0	
B_LMT2_GMT248	20.000	82.276	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT249	-0.002	-0.001	0.1	84.9	
								B_LMT2_GMT247	0.002	0.001	0.1	84.9	
B_LMT2_GMT249	20.000	82.276	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT248	0.002	0.000	0.1	97.7	
								B_LMT2_GMT250	-0.037	-0.020	1.5	87.6	
								B_LMT2_GMT259	0.035	0.020	1.4	87.1	
B_LMT2_GMT250	20.000	82.282	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT246	0.025	0.015	1.0	85.6	
								B_LMT2_GMT249	0.037	0.020	1.5	88.3	
								B_LMT2_GMT251	-0.062	-0.035	2.5	87.2	
B_LMT2_GMT251	20.000	82.292	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT244	0.003	0.001	0.1	92.2	
								B_LMT2_GMT250	0.062	0.034	2.5	87.6	
								B_LMT2_GMT221	-0.065	-0.035	2.6	87.8	
B_LMT2_GMT258	0.400	81.604	-7.8	0.000	0.000	0.006	0.004	B_LMT2_GMT259	-0.006	-0.004	13.2	85.0	
B_LMT2_GMT259	20.000	82.270	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT249	-0.035	-0.021	1.4	86.4	
								B_LMT2_GMT263	0.029	0.017	1.2	86.7	
								B_LMT2_GMT258	0.006	0.004	0.3	84.8	
B_LMT2_GMT260	0.400	82.100	-7.6	0.000	0.000	0.002	0.001	B_LMT2_GMT263	-0.002	-0.001	3.3	85.0	
B_LMT2_GMT261	0.400	79.364	-8.5	0.000	0.000	0.027	0.017	B_LMT2_GMT262	-0.027	-0.017	57.3	85.0	
B_LMT2_GMT262	20.000	82.261	-7.6	0.000	0.000	0.000	0.000	LMT2 V UJUNG	0.000	-0.001	0.0	0.0	
								B_LMT2_GMT263	-0.027	-0.017	1.1	85.1	
								B_LMT2_GMT261	0.027	0.018	1.1	84.1	
B_LMT2_GMT263	20.000	82.266	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT262	0.027	0.016	1.1	85.9	
								B_LMT2_GMT259	-0.029	-0.017	1.2	85.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_LMT2_GMT260	0.002	0.001	0.1	85.0	
B_MR3	20.000	98.687	-4.3	0.000	0.000	0.000	0.000	GH MARISA1	1.243	0.656	41.1	88.4	
								B_MR04_GM18	-1.243	-0.656	41.1	88.4	
B_MR04_GM	20.000	103.026	-3.7	0.000	0.000	0.000	0.000	GI MARISA	-5.111	-3.135	168.0	85.2	
								B_MR04_GM1	1.855	1.179	61.6	84.4	
								B_MR04_GM3	3.255	1.957	106.4	85.7	
B_MR04_GM1	20.000	102.876	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM	-1.853	-1.177	61.6	84.4	
								B_MR04_GM2	1.821	1.157	60.5	84.4	
								B_MR04_GM_1	0.032	0.020	1.1	84.4	
B_MR04_GM_1	0.400	100.210	-4.4	0.000	0.000	0.031	0.019	B_MR04_GM1	-0.031	-0.019	52.7	85.0	
B_MR04_GM2	20.000	102.729	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM1	-1.819	-1.156	60.6	84.4	
								B_MR04_GM_2	1.819	1.156	60.6	84.4	
B_MR04_GM_2	0.400	100.178	-4.4	0.000	0.000	1.786	1.107	B_MR04_GM2	-1.786	-1.107	3027.9	85.0	
B_MR04_GM3	20.000	102.841	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM	-3.251	-1.951	106.4	85.7	
								B_MR04_GM4	0.025	0.014	0.8	86.9	
								B_MR04_GM6	3.188	1.913	104.4	85.7	
								B_MR04_GM_3	0.039	0.024	1.3	84.6	
B_MR04_GM_3	0.400	101.225	-4.2	0.000	0.000	0.038	0.024	B_MR04_GM3	-0.038	-0.024	64.0	85.0	
B_MR04_GM4	20.000	102.839	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM5	0.013	0.007	0.4	86.7	
								B_MR04_GM3	-0.025	-0.015	0.8	85.8	
								B_MR04_GM_4	0.012	0.008	0.4	84.8	
B_MR04_GM_4	0.400	101.836	-4.0	0.000	0.000	0.012	0.007	B_MR04_GM4	-0.012	-0.007	19.9	85.0	
B_MR04_GM5	20.000	102.838	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM4	-0.013	-0.008	0.4	84.5	
								B_MR04_GM_5	0.013	0.008	0.4	84.5	
B_MR04_GM_5	0.400	100.722	-4.3	0.000	0.000	0.012	0.008	B_MR04_GM5	-0.012	-0.008	20.9	85.0	
B_MR04_GM6	20.000	102.589	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM3	-3.181	-1.908	104.4	85.8	
								B_MR04_GM7	3.163	1.896	103.8	85.8	
								B_MR04_GM_6	0.017	0.011	0.6	84.3	
B_MR04_GM_6	0.400	99.640	-4.6	0.000	0.000	0.017	0.011	B_MR04_GM6	-0.017	-0.011	29.2	85.0	
B_MR04_GM7	20.000	102.338	-3.8	0.000	0.000	0.000	0.000	B_MR04_GM6	-3.157	-1.891	103.8	85.8	
								B_MR04_GM8	3.130	1.874	102.9	85.8	
								B_MR04_GM_7	0.027	0.017	0.9	83.9	
B_MR04_GM_7	0.400	97.781	-5.0	0.000	0.000	0.026	0.016	B_MR04_GM7	-0.026	-0.016	45.0	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM8	20.000	102.089	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM7	-3.123	-1.868	102.9	85.8	
								B_MR04_GM9	3.122	1.868	102.9	85.8	
								B_MR04_GM_8	0.001	0.001	0.0	85.0	
B_MR04_GM_8	0.400	102.017	-3.9	0.000	0.000	0.001	0.001	B_MR04_GM8	-0.001	-0.001	1.4	85.0	
B_MR04_GM9	20.000	101.840	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM8	-3.115	-1.863	102.9	85.8	
								B_MR04_GM10	3.036	1.810	100.2	85.9	
								B_MR04_GM_9	0.079	0.053	2.7	83.4	
B_MR04_GM_9	0.400	94.980	-5.6	0.000	0.000	0.076	0.047	B_MR04_GM9	-0.076	-0.047	135.1	85.0	
B_MR04_GM10	20.000	101.598	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM9	-3.030	-1.805	100.2	85.9	
								B_MR04_GM11	3.014	1.795	99.7	85.9	
								B_MR04_GM_10	0.016	0.010	0.5	84.8	
B_MR04_GM_10	0.400	100.920	-4.1	0.000	0.000	0.016	0.010	B_MR04_GM10	-0.016	-0.010	26.9	85.0	
B_MR04_GM11	20.000	101.357	-3.9	0.000	0.000	0.000	0.000	B_MR04_GM10	-3.007	-1.790	99.7	85.9	
								B_MR04_GM12	2.947	1.749	97.6	86.0	
								B_MR04_GM_11	0.060	0.041	2.1	82.4	
B_MR04_GM_11	0.400	90.767	-6.7	0.000	0.000	0.056	0.034	B_MR04_GM11	-0.056	-0.034	103.9	85.0	
B_MR04_GM12	20.000	101.121	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM11	-2.941	-1.744	97.6	86.0	
								B_MR04_GM26	2.922	1.732	97.0	86.0	
								B_MR04_GM_12	0.019	0.012	0.6	84.2	
B_MR04_GM_12	0.400	97.944	-4.8	0.000	0.000	0.018	0.011	B_MR04_GM12	-0.018	-0.011	31.4	85.0	
B_MR04_GM13	20.000	99.082	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM22	-0.200	-0.132	7.0	83.5	
								B_MR04_GM14	0.098	0.063	3.4	84.3	
								B_MR04_GM_13	0.102	0.070	3.6	82.7	
B_MR04_GM_13	0.400	89.902	-6.6	0.000	0.000	0.095	0.059	B_MR04_GM13	-0.095	-0.059	180.3	85.0	
B_MR04_GM14	20.000	99.074	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM13	-0.098	-0.063	3.4	84.0	
								B_MR04_GM49	0.024	0.015	0.8	85.8	
								B_MR04_GM_14	0.073	0.049	2.6	83.4	
B_MR04_GM_14	0.400	92.562	-5.9	0.000	0.000	0.070	0.043	B_MR04_GM14	-0.070	-0.043	128.3	85.0	
B_MR04_GM15	20.000	98.980	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM16	-0.096	-0.063	3.3	83.5	
								B_MR04_GM48	0.038	0.023	1.3	85.3	
								B_MR04_GM_15	0.058	0.040	2.1	82.4	
B_MR04_GM_15	0.400	88.477	-7.0	0.000	0.000	0.054	0.033	B_MR04_GM15	-0.054	-0.033	103.0	85.0	
B_MR04_GM16	20.000	98.988	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM15	0.096	0.062	3.3	83.8	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR04_GM22	-1.400	-0.756	46.4	88.0	
								B_MR04_GM17	1.299	0.691	42.9	88.3	
								B_MR04_GM_16	0.004	0.003	0.2	85.0	
B_MR04_GM_16	0.400	98.794	-4.3	0.000	0.000	0.004	0.003	B_MR04_GM16	-0.004	-0.003	7.7	85.0	
B_MR04_GM17	20.000	98.885	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM16	-1.298	-0.690	42.9	88.3	
								B_MR04_GM18	1.263	0.668	41.7	88.4	
								B_MR04_GM_17	0.035	0.022	1.2	84.2	
B_MR04_GM_17	0.400	95.807	-5.0	0.000	0.000	0.034	0.021	B_MR04_GM17	-0.034	-0.021	60.8	85.0	
B_MR04_GM18	20.000	98.785	-4.3	0.000	0.000	0.000	0.000	B_MR3	1.245	0.657	41.1	88.4	
								B_MR04_GM17	-1.262	-0.668	41.7	88.4	
								B_MR04_GM_18	0.017	0.011	0.6	84.6	
B_MR04_GM_18	0.400	97.272	-4.7	0.000	0.000	0.017	0.011	B_MR04_GM18	-0.017	-0.011	30.0	85.0	
B_MR04_GM19	20.000	99.081	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM22	-0.212	-0.136	7.3	84.1	
								B_MR04_GM20	0.115	0.073	4.0	84.2	
								B_MR04_GM_19	0.097	0.063	3.4	84.0	
B_MR04_GM_19	0.400	94.817	-5.3	0.000	0.000	0.094	0.058	B_MR04_GM19	-0.094	-0.058	168.4	85.0	
B_MR04_GM20	20.000	99.071	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM19	-0.115	-0.074	4.0	84.0	
								B_MR04_GM21	0.050	0.032	1.7	84.4	
								B_MR04_GM_20	0.065	0.042	2.3	83.6	
B_MR04_GM_20	0.400	93.361	-5.7	0.000	0.000	0.062	0.038	B_MR04_GM20	-0.062	-0.038	112.6	85.0	
B_MR04_GM21	20.000	99.067	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM20	-0.050	-0.032	1.7	83.9	
								B_MR04_GM_21	0.050	0.032	1.7	83.9	
B_MR04_GM_21	0.400	94.669	-5.4	0.000	0.000	0.048	0.030	B_MR04_GM21	-0.048	-0.030	86.8	85.0	
B_MR04_GM22	20.000	99.099	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM13	0.200	0.131	7.0	83.6	
								B_MR04_GM16	1.401	0.756	46.4	88.0	
								B_MR04_GM19	0.212	0.136	7.3	84.2	
								B_MR04_GM23	-1.834	-1.037	61.4	87.1	
								B_MR04_GM_22	0.021	0.013	0.7	84.8	
B_MR04_GM_22	0.400	98.183	-4.4	0.000	0.000	0.021	0.013	B_MR04_GM22	-0.021	-0.013	36.3	85.0	
B_MR04_GM23	20.000	99.246	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM22	1.836	1.038	61.4	87.1	
								B_MR04_GM25	-1.898	-1.081	63.5	86.9	
								B_MR04_GM_23	0.062	0.043	2.2	82.2	
B_MR04_GM_23	0.400	88.057	-7.1	0.000	0.000	0.057	0.035	B_MR04_GM23	-0.057	-0.035	109.7	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM24	20.000	99.556	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM32	-1.995	-1.143	66.7	86.8	
								B_MR04_GM25	1.942	1.109	64.8	86.8	
								B_MR04_GM_24	0.052	0.034	1.8	83.9	
B_MR04_GM_24	0.400	94.964	-5.4	0.000	0.000	0.051	0.031	B_MR04_GM24	-0.051	-0.031	90.6	85.0	
B_MR04_GM25	20.000	99.399	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM23	1.901	1.083	63.5	86.9	
								B_MR04_GM24	-1.940	-1.107	64.9	86.8	
								B_MR04_GM_25	0.039	0.024	1.3	84.6	
B_MR04_GM_25	0.400	97.728	-4.6	0.000	0.000	0.038	0.024	B_MR04_GM25	-0.038	-0.024	66.2	85.0	
B_MR04_GM26	20.000	100.887	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM12	-2.916	-1.728	97.0	86.0	
								B_MR04_GM27	2.887	1.709	96.0	86.1	
								B_MR04_GM_26	0.029	0.019	1.0	84.4	
B_MR04_GM_26	0.400	98.369	-4.7	0.000	0.000	0.029	0.018	B_MR04_GM26	-0.029	-0.018	49.8	85.0	
B_MR04_GM27	20.000	100.655	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM26	-2.881	-1.705	96.0	86.1	
								B_MR04_GM28	2.474	1.449	82.2	86.3	
								B_MR04_GM40	0.332	0.205	11.2	85.0	
								B_MR04_GM_27	0.076	0.050	2.6	83.4	
B_MR04_GM_27	0.400	94.028	-5.7	0.000	0.000	0.072	0.045	B_MR04_GM27	-0.072	-0.045	130.5	85.0	
B_MR04_GM28	20.000	100.456	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM27	-2.469	-1.446	82.2	86.3	
								B_MR04_GM29	2.449	1.433	81.5	86.3	
								B_MR04_GM_28	0.021	0.013	0.7	84.6	
B_MR04_GM_28	0.400	98.662	-4.5	0.000	0.000	0.021	0.013	B_MR04_GM28	-0.021	-0.013	35.5	85.0	
B_MR04_GM29	20.000	100.260	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM28	-2.444	-1.429	81.5	86.3	
								B_MR04_GM30	2.412	1.409	80.4	86.3	
								B_MR04_GM_29	0.032	0.021	1.1	84.3	
B_MR04_GM_29	0.400	97.461	-4.8	0.000	0.000	0.032	0.020	B_MR04_GM29	-0.032	-0.020	55.3	85.0	
B_MR04_GM30	20.000	100.066	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM29	-2.408	-1.406	80.4	86.4	
								B_MR04_GM31	2.340	1.362	78.1	86.4	
								B_MR04_GM_30	0.067	0.044	2.3	83.6	
B_MR04_GM_30	0.400	94.167	-5.6	0.000	0.000	0.064	0.040	B_MR04_GM30	-0.064	-0.040	116.3	85.0	
B_MR04_GM31	20.000	99.877	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM32	2.005	1.149	66.8	86.8	
								B_MR04_GM30	-2.337	-1.359	78.1	86.4	
								B_MR04_GM33	0.303	0.192	10.4	84.5	
								B_MR04_GM_31	0.029	0.018	1.0	84.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM_31	0.400	98.640	-4.4	0.000	0.000	0.028	0.018	B_MR04_GM31	-0.028	-0.018	49.0	85.0	
B_MR04_GM32	20.000	99.716	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM24	1.997	1.145	66.6	86.8	
								B_MR04_GM31	-2.002	-1.147	66.8	86.8	
								B_MR04_GM_32	0.004	0.003	0.1	84.8	
B_MR04_GM_32	0.400	98.968	-4.3	0.000	0.000	0.004	0.003	B_MR04_GM32	-0.004	-0.003	7.4	85.0	
B_MR04_GM33	20.000	99.852	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM31	-0.303	-0.192	10.4	84.4	
								B_MR04_GM34	0.287	0.182	9.8	84.4	
								B_MR04_GM_33	0.016	0.010	0.6	84.8	
B_MR04_GM_33	0.400	99.143	-4.3	0.000	0.000	0.016	0.010	B_MR04_GM33	-0.016	-0.010	28.1	85.0	
B_MR04_GM34	20.000	99.828	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM33	-0.287	-0.183	9.8	84.3	
								B_MR04_GM35	0.217	0.138	7.4	84.3	
								B_MR04_GM_34	0.070	0.045	2.4	84.3	
B_MR04_GM_34	0.400	96.805	-4.9	0.000	0.000	0.068	0.042	B_MR04_GM34	-0.068	-0.042	119.5	85.0	
B_MR04_GM35	20.000	99.810	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM34	-0.217	-0.139	7.4	84.2	
								B_MR04_GM36	0.028	0.016	1.0	86.6	
								B_MR04_GM39	0.104	0.066	3.6	84.4	
								B_MR04_GM_35	0.084	0.056	2.9	83.2	
B_MR04_GM_35	0.400	92.391	-6.0	0.000	0.000	0.079	0.049	B_MR04_GM35	-0.079	-0.049	146.0	85.0	
B_MR04_GM36	20.000	99.808	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM35	-0.028	-0.017	1.0	85.7	
								B_MR04_GM37	0.023	0.014	0.8	85.9	
								B_MR04_GM_36	0.005	0.003	0.2	84.8	
B_MR04_GM_36	0.400	98.875	-4.4	0.000	0.000	0.005	0.003	B_MR04_GM36	-0.005	-0.003	9.2	85.0	
B_MR04_GM37	20.000	99.806	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM36	-0.023	-0.014	0.8	84.8	
								B_MR04_GM_37	0.023	0.014	0.8	84.8	
B_MR04_GM_37	0.400	98.813	-4.4	0.000	0.000	0.023	0.014	B_MR04_GM37	-0.023	-0.014	39.3	85.0	
B_MR04_GM38	20.000	99.797	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM39	-0.054	-0.035	1.9	83.8	
								B_MR04_GM_38	0.054	0.035	1.9	83.8	
B_MR04_GM_38	0.400	95.054	-5.4	0.000	0.000	0.052	0.032	B_MR04_GM38	-0.052	-0.032	93.6	85.0	
B_MR04_GM39	20.000	99.801	-4.1	0.000	0.000	0.000	0.000	B_MR04_GM38	0.054	0.035	1.9	84.3	
								B_MR04_GM35	-0.104	-0.067	3.6	84.1	
								B_MR04_GM_39	0.050	0.032	1.7	83.9	
B_MR04_GM_39	0.400	95.428	-5.3	0.000	0.000	0.049	0.030	B_MR04_GM39	-0.049	-0.030	86.3	85.0	
B_MR04_GM40	20.000	100.628	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM27	-0.331	-0.206	11.2	84.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR04_GM41	0.277	0.171	9.3	85.0	
								B_MR04_GM_40	0.055	0.035	1.9	84.4	
B_MR04_GM_40	0.400	98.274	-4.6	0.000	0.000	0.054	0.033	B_MR04_GM40	-0.054	-0.033	93.1	85.0	
B_MR04_GM41	20.000	100.605	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM40	-0.277	-0.172	9.3	84.9	
								B_MR04_GM42	0.031	0.018	1.0	86.5	
								B_MR04_GM44	0.185	0.116	6.3	84.8	
								B_MR04_GM_41	0.060	0.038	2.0	84.4	
B_MR04_GM_41	0.400	98.022	-4.7	0.000	0.000	0.059	0.037	B_MR04_GM41	-0.059	-0.037	102.2	85.0	
B_MR04_GM42	20.000	100.603	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM41	-0.031	-0.019	1.0	85.6	
								B_MR04_GM43	0.014	0.008	0.5	86.7	
								B_MR04_GM_42	0.017	0.011	0.6	84.8	
B_MR04_GM_42	0.400	99.856	-4.2	0.000	0.000	0.017	0.011	B_MR04_GM42	-0.017	-0.011	29.6	85.0	
B_MR04_GM43	20.000	100.601	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM42	-0.014	-0.009	0.5	84.7	
								B_MR04_GM_43	0.014	0.009	0.5	84.7	
B_MR04_GM_43	0.400	99.439	-4.3	0.000	0.000	0.013	0.008	B_MR04_GM43	-0.013	-0.008	23.0	85.0	
B_MR04_GM44	20.000	100.590	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM41	-0.185	-0.116	6.3	84.7	
								B_MR04_GM45	0.114	0.071	3.9	85.0	
								B_MR04_GM_44	0.071	0.045	2.4	84.3	
B_MR04_GM_44	0.400	97.533	-4.8	0.000	0.000	0.069	0.043	B_MR04_GM44	-0.069	-0.043	120.9	85.0	
B_MR04_GM45	20.000	100.580	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM44	-0.114	-0.072	3.9	84.7	
								B_MR04_GM46	0.096	0.060	3.2	84.8	
								B_MR04_GM_45	0.018	0.012	0.6	84.6	
B_MR04_GM_45	0.400	99.001	-4.4	0.000	0.000	0.018	0.011	B_MR04_GM45	-0.018	-0.011	31.3	85.0	
B_MR04_GM46	20.000	100.573	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM45	-0.096	-0.061	3.3	84.5	
								B_MR04_GM47	0.052	0.033	1.8	84.4	
								B_MR04_GM_46	0.044	0.028	1.5	84.5	
B_MR04_GM_46	0.400	98.670	-4.5	0.000	0.000	0.044	0.027	B_MR04_GM46	-0.044	-0.027	75.3	85.0	
B_MR04_GM47	20.000	100.568	-4.0	0.000	0.000	0.000	0.000	B_MR04_GM46	-0.052	-0.033	1.8	83.9	
								B_MR04_GM_47	0.052	0.033	1.8	83.9	
B_MR04_GM_47	0.400	96.100	-5.2	0.000	0.000	0.050	0.031	B_MR04_GM47	-0.050	-0.031	88.2	85.0	
B_MR04_GM48	20.000	98.976	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM15	-0.038	-0.024	1.3	84.6	
								B_MR04_GM_48	0.038	0.024	1.3	84.6	
B_MR04_GM_48	0.400	97.343	-4.7	0.000	0.000	0.037	0.023	B_MR04_GM48	-0.037	-0.023	64.7	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR04_GM49	20.000	99.072	-4.2	0.000	0.000	0.000	0.000	B_MR04_GM14	-0.024	-0.015	0.8	84.7	
								B_MR04_GM_49	0.024	0.015	0.8	84.7	
B_MR04_GM_49	0.400	98.009	-4.5	0.000	0.000	0.024	0.015	B_MR04_GM49	-0.024	-0.015	42.1	85.0	
B_MR6_GMP1	20.000	103.056	-3.7	0.000	0.000	0.000	0.000	GI MARISA	-3.887	-2.510	129.6	84.0	
								B_MR6_GMP4	3.887	2.510	129.6	84.0	
B_MR6_GMP2	20.000	91.455	-6.7	0.000	0.000	0.000	0.000	MR6 V UJUNG	2.991	1.757	109.5	86.2	
								B_MR6_GMP81	-2.991	-1.757	109.5	86.2	
B_MR6_GMP3	0.400	99.297	-4.7	0.000	0.000	0.016	0.010	B_MR6_GMP4	-0.016	-0.010	27.5	85.0	
B_MR6_GMP4	20.000	102.083	-4.0	0.000	0.000	0.000	0.000	B_MR6_GMP1	-3.859	-2.475	129.6	84.2	
								B_MR6_GMP7	3.843	2.464	129.1	84.2	
								B_MR6_GMP3	0.016	0.010	0.6	84.3	
B_MR6_GMP6	0.400	98.612	-4.8	0.000	0.000	0.029	0.018	B_MR6_GMP7	-0.029	-0.018	49.5	85.0	
B_MR6_GMP7	20.000	101.115	-4.2	0.000	0.000	0.000	0.000	B_MR6_GMP4	-3.816	-2.429	129.1	84.4	
								B_MR6_GMP11	3.787	2.411	128.2	84.4	
								B_MR6_GMP6	0.029	0.019	1.0	84.4	
B_MR6_GMP10	0.400	98.313	-4.9	0.000	0.000	0.021	0.013	B_MR6_GMP11	-0.021	-0.013	36.5	85.0	
B_MR6_GMP11	20.000	100.155	-4.4	0.000	0.000	0.000	0.000	B_MR6_GMP7	-3.760	-2.376	128.2	84.5	
								B_MR6_GMP13	3.739	2.362	127.5	84.5	
								B_MR6_GMP10	0.021	0.014	0.7	84.6	
B_MR6_GMP12	0.400	98.651	-4.8	0.000	0.000	0.013	0.008	B_MR6_GMP13	-0.013	-0.008	21.8	85.0	
B_MR6_GMP13	20.000	99.201	-4.6	0.000	0.000	0.000	0.000	B_MR6_GMP11	-3.712	-2.328	127.5	84.7	
								B_MR6_GMP15	3.700	2.320	127.1	84.7	
								B_MR6_GMP12	0.013	0.008	0.4	84.9	
B_MR6_GMP14	0.400	96.425	-5.4	0.000	0.000	0.041	0.025	B_MR6_GMP15	-0.041	-0.025	72.3	85.0	
B_MR6_GMP15	20.000	98.252	-4.9	0.000	0.000	0.000	0.000	B_MR6_GMP13	-3.674	-2.286	127.1	84.9	
								B_MR6_GMP16	3.632	2.260	125.7	84.9	
								B_MR6_GMP14	0.042	0.026	1.4	84.6	
B_MR6_GMP16	20.000	97.315	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP15	-3.606	-2.226	125.7	85.1	
								B_MR6_GMP19	0.220	0.134	7.6	85.5	
								B_MR6_GMP37	0.045	0.021	1.5	90.6	
								B_MR6_GMP66	3.342	2.072	116.6	85.0	
B_MR6_GMP19	20.000	97.285	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP16	-0.220	-0.134	7.6	85.3	
								B_MR6_GMP21	0.047	0.029	1.7	85.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR6_GMP25	0.172	0.105	6.0	85.4	
B_MR6_GMP20	0.400	95.173	-5.7	0.000	0.000	0.047	0.029	B_MR6_GMP21	-0.047	-0.029	83.3	85.0	
B_MR6_GMP21	20.000	97.279	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP19	-0.047	-0.030	1.7	84.5	
								B_MR6_GMP20	0.047	0.030	1.7	84.5	
B_MR6_GMP24	0.400	95.076	-5.7	0.000	0.000	0.024	0.015	B_MR6_GMP26	-0.024	-0.015	43.2	85.0	
B_MR6_GMP25	20.000	97.262	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP19	-0.172	-0.106	6.0	85.2	
								B_MR6_GMP26	0.025	0.015	0.8	85.8	
								B_MR6_GMP30	0.148	0.091	5.2	85.0	
B_MR6_GMP26	20.000	97.258	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP25	-0.025	-0.016	0.9	84.5	
								B_MR6_GMP24	0.025	0.016	0.9	84.5	
B_MR6_GMP30	20.000	97.242	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP25	-0.148	-0.092	5.2	84.8	
								B_MR6_GMP32	0.026	0.016	0.9	85.7	
								B_MR6_GMP36	0.121	0.076	4.3	84.6	
B_MR6_GMP31	0.400	94.902	-5.7	0.000	0.000	0.026	0.016	B_MR6_GMP32	-0.026	-0.016	46.2	85.0	
B_MR6_GMP32	20.000	97.238	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP30	-0.026	-0.017	0.9	84.4	
								B_MR6_GMP31	0.026	0.017	0.9	84.4	
B_MR6_GMP35	0.400	94.523	-5.8	0.000	0.000	0.119	0.074	B_MR6_GMP36	-0.119	-0.074	213.7	85.0	
B_MR6_GMP36	20.000	97.225	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP30	-0.121	-0.077	4.3	84.3	
								B_MR6_GMP35	0.121	0.077	4.3	84.3	
B_MR6_GMP37	20.000	97.310	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP16	-0.045	-0.022	1.5	89.9	
								B_MR6_GMP46	0.016	0.007	0.5	91.0	
								B_MR6_GMP55	0.029	0.014	1.0	89.3	
B_MR6_GMP42	0.400	96.785	-5.2	0.000	0.000	0.006	0.004	B_MR6_GMP45	-0.006	-0.004	10.3	85.0	
B_MR6_GMP43	0.400	96.411	-5.3	0.000	0.000	0.010	0.006	B_MR6_GMP44	-0.010	-0.006	17.7	85.0	
B_MR6_GMP44	20.000	97.305	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP46	-0.016	-0.009	0.5	86.9	
								B_MR6_GMP45	0.006	0.003	0.2	90.5	
								B_MR6_GMP43	0.010	0.006	0.4	84.8	
B_MR6_GMP45	20.000	97.305	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP44	-0.006	-0.004	0.2	84.9	
								B_MR6_GMP42	0.006	0.004	0.2	84.9	
B_MR6_GMP46	20.000	97.308	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP37	-0.016	-0.008	0.5	89.0	
								B_MR6_GMP44	0.016	0.008	0.5	89.0	
B_MR6_GMP51	0.400	95.578	-5.6	0.000	0.000	0.019	0.012	B_MR6_GMP54	-0.019	-0.012	34.1	85.0	
B_MR6_GMP52	0.400	97.004	-5.2	0.000	0.000	0.003	0.002	B_MR6_GMP53	-0.003	-0.002	5.9	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMP53	20.000	97.301	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP54	-0.009	-0.005	0.3	88.5	
								B_MR6_GMP59	0.006	0.003	0.2	90.5	
								B_MR6_GMP52	0.003	0.002	0.1	84.9	
B_MR6_GMP54	20.000	97.302	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP55	-0.029	-0.016	1.0	87.0	
								B_MR6_GMP53	0.009	0.004	0.3	91.9	
								B_MR6_GMP51	0.019	0.012	0.7	84.6	
B_MR6_GMP55	20.000	97.306	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP37	-0.029	-0.015	1.0	88.2	
								B_MR6_GMP54	0.029	0.015	1.0	88.2	
B_MR6_GMP58	0.400	96.780	-5.2	0.000	0.000	0.006	0.004	B_MR6_GMP59	-0.006	-0.004	10.3	85.0	
B_MR6_GMP59	20.000	97.300	-5.1	0.000	0.000	0.000	0.000	B_MR6_GMP53	-0.006	-0.004	0.2	84.9	
								B_MR6_GMP58	0.006	0.004	0.2	84.9	
B_MR6_GMP62	0.400	95.805	-5.5	0.000	0.000	0.014	0.009	B_MR6_GMP63	-0.014	-0.009	25.2	85.0	
B_MR6_GMP63	20.000	96.440	-5.3	0.000	0.000	0.000	0.000	B_MR6_GMP66	-0.043	-0.026	1.5	85.3	
								B_MR6_GMP65	0.029	0.017	1.0	85.5	
								B_MR6_GMP62	0.014	0.009	0.5	84.8	
B_MR6_GMP64	0.400	93.855	-6.0	0.000	0.000	0.028	0.017	B_MR6_GMP65	-0.028	-0.017	51.0	85.0	
B_MR6_GMP65	20.000	96.436	-5.3	0.000	0.000	0.000	0.000	B_MR6_GMP63	-0.029	-0.018	1.0	84.4	
								B_MR6_GMP64	0.029	0.018	1.0	84.4	
B_MR6_GMP66	20.000	96.446	-5.3	0.000	0.000	0.000	0.000	B_MR6_GMP16	-3.320	-2.043	116.7	85.2	
								B_MR6_GMP63	0.043	0.025	1.5	86.1	
								B_MR6_GMP70	3.277	2.018	115.2	85.1	
B_MR6_GMP69	0.400	93.265	-6.2	0.000	0.000	0.051	0.031	B_MR6_GMP70	-0.051	-0.031	91.9	85.0	
B_MR6_GMP70	20.000	95.589	-5.5	0.000	0.000	0.000	0.000	B_MR6_GMP66	-3.255	-1.990	115.2	85.3	
								B_MR6_GMP72	3.204	1.957	113.4	85.3	
								B_MR6_GMP69	0.051	0.033	1.8	84.4	
B_MR6_GMP71	0.400	93.988	-6.0	0.000	0.000	0.008	0.005	B_MR6_GMP73	-0.008	-0.005	15.0	85.0	
B_MR6_GMP72	20.000	94.746	-5.8	0.000	0.000	0.000	0.000	B_MR6_GMP70	-3.183	-1.931	113.4	85.5	
								B_MR6_GMP73	0.008	0.004	0.3	88.6	
								B_MR6_GMP77	3.175	1.926	113.1	85.5	
B_MR6_GMP73	20.000	94.745	-5.8	0.000	0.000	0.000	0.000	B_MR6_GMP72	-0.008	-0.005	0.3	84.8	
								B_MR6_GMP71	0.008	0.005	0.3	84.8	
B_MR6_GMP76	0.400	91.751	-6.6	0.000	0.000	0.046	0.029	B_MR6_GMP77	-0.046	-0.029	85.3	85.0	
B_MR6_GMP77	20.000	93.907	-6.0	0.000	0.000	0.000	0.000	B_MR6_GMP72	-3.154	-1.899	113.2	85.7	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
								B_MR6_GMP79	3.107	1.870	111.5	85.7	
								B_MR6_GMP76	0.047	0.030	1.7	84.4	
B_MR6_GMP78	0.400	90.436	-7.0	0.000	0.000	0.028	0.017	B_MR6_GMP79	-0.028	-0.017	52.3	85.0	
B_MR6_GMP79	20.000	93.081	-6.2	0.000	0.000	0.000	0.000	B_MR6_GMP77	-3.087	-1.844	111.5	85.9	
								B_MR6_GMP81	3.059	1.826	110.5	85.9	
								B_MR6_GMP78	0.028	0.018	1.0	84.3	
B_MR6_GMP80	0.400	89.603	-7.2	0.000	0.000	0.028	0.017	B_MR6_GMP81	-0.028	-0.017	52.6	85.0	
B_MR6_GMP81	20.000	92.263	-6.4	0.000	0.000	0.000	0.000	B_MR6_GMP79	-3.039	-1.800	110.5	86.0	
								B_MR6_GMP2	3.011	1.782	109.5	86.1	
								B_MR6_GMP80	0.028	0.018	1.1	84.3	
B_MR6_GMP82	20.000	90.080	-6.8	0.000	0.000	0.000	0.000	MR6 V UJUNG	-2.951	-1.725	109.5	86.3	
								B_MR6_GMT2	2.951	1.725	109.5	86.3	
B_MR6_GMT1	0.400	87.693	-7.5	0.000	0.000	0.045	0.028	B_MR6_GMT3	-0.045	-0.028	87.9	85.0	
B_MR6_GMT2	20.000	89.922	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMP82	-2.947	-1.721	109.6	86.4	
								B_MR6_GMT3	0.046	0.029	1.7	85.0	
								B_MR6_GMT7	2.901	1.692	107.8	86.4	
B_MR6_GMT3	20.000	89.915	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT2	-0.046	-0.029	1.8	84.4	
								B_MR6_GMT1	0.046	0.029	1.8	84.4	
B_MR6_GMT7	20.000	89.766	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT2	-2.896	-1.689	107.8	86.4	
								B_MR6_GMT9	0.002	0.000	0.1	98.8	
								B_MR6_GMT13	2.894	1.689	107.8	86.4	
B_MR6_GMT8	0.400	89.453	-7.0	0.000	0.000	0.002	0.001	B_MR6_GMT9	-0.002	-0.001	3.1	85.0	
B_MR6_GMT9	20.000	89.766	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT7	-0.002	-0.001	0.1	84.9	
								B_MR6_GMT8	0.002	0.001	0.1	84.9	
B_MR6_GMT13	20.000	89.610	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT7	-2.890	-1.685	107.8	86.4	
								B_MR6_GMT19	2.874	1.675	107.1	86.4	
								B_MR6_GMT14	0.016	0.010	0.6	84.6	
B_MR6_GMT14	0.400	88.028	-7.4	0.000	0.000	0.016	0.010	B_MR6_GMT13	-0.016	-0.010	31.3	85.0	
B_MR6_GMT18	0.400	87.871	-7.4	0.000	0.000	0.016	0.010	B_MR6_GMT19	-0.016	-0.010	31.4	85.0	
B_MR6_GMT19	20.000	89.455	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT13	-2.869	-1.671	107.1	86.4	
								B_MR6_GMT21	2.853	1.661	106.5	86.4	
								B_MR6_GMT18	0.016	0.010	0.6	84.6	
B_MR6_GMT20	0.400	89.183	-7.0	0.000	0.000	0.002	0.002	B_MR6_GMT21	-0.002	-0.002	4.7	85.0	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT21	20.000	89.300	-6.9	0.000	0.000	0.000	0.000	B_MR6_GMT19	-2.848	-1.657	106.5	86.4	
								B_MR6_GMT25	2.846	1.656	106.4	86.4	
								B_MR6_GMT20	0.002	0.002	0.1	85.0	
B_MR6_GMT25	20.000	89.146	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT21	-2.842	-1.652	106.4	86.5	
								B_MR6_GMT27	0.004	0.002	0.1	91.7	
								B_MR6_GMT30	2.838	1.650	106.3	86.4	
B_MR6_GMT26	0.400	88.950	-7.0	0.000	0.000	0.004	0.003	B_MR6_GMT27	-0.004	-0.003	7.8	85.0	
B_MR6_GMT27	20.000	89.146	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT25	-0.004	-0.003	0.2	84.9	
								B_MR6_GMT26	0.004	0.003	0.2	84.9	
B_MR6_GMT30	20.000	88.993	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT25	-2.833	-1.647	106.3	86.5	
								B_MR6_GMT35	2.829	1.644	106.1	86.5	
								B_MR6_GMT31	0.004	0.003	0.2	84.8	
B_MR6_GMT31	0.400	88.203	-7.2	0.000	0.000	0.004	0.003	B_MR6_GMT30	-0.004	-0.003	7.8	85.0	
B_MR6_GMT35	20.000	88.839	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT30	-2.825	-1.641	106.2	86.5	
								B_MR6_GMT37	0.022	0.013	0.8	85.7	
								B_MR6_GMT38	0.080	0.045	3.0	87.2	
								B_MR6_GMT63	2.723	1.583	102.3	86.5	
B_MR6_GMT36	0.400	86.676	-7.6	0.000	0.000	0.022	0.014	B_MR6_GMT37	-0.022	-0.014	42.7	85.0	
B_MR6_GMT37	20.000	88.836	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT35	-0.022	-0.014	0.9	84.4	
								B_MR6_GMT36	0.022	0.014	0.9	84.4	
B_MR6_GMT38	20.000	88.827	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT35	-0.080	-0.046	3.0	86.8	
								B_MR6_GMT47	0.026	0.016	1.0	86.2	
								B_MR6_GMT55	0.053	0.030	2.0	87.1	
B_MR6_GMT44	0.400	87.873	-7.3	0.000	0.000	0.005	0.003	B_MR6_GMT48	-0.005	-0.003	9.4	85.0	
B_MR6_GMT45	0.400	84.583	-8.2	0.000	0.000	0.021	0.013	B_MR6_GMT47	-0.021	-0.013	41.8	85.0	
B_MR6_GMT47	20.000	88.823	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT38	-0.026	-0.016	1.0	85.1	
								B_MR6_GMT48	0.005	0.002	0.2	90.4	
								B_MR6_GMT45	0.022	0.014	0.8	83.8	
B_MR6_GMT48	20.000	88.823	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT47	-0.005	-0.003	0.2	84.7	
								B_MR6_GMT44	0.005	0.003	0.2	84.7	
B_MR6_GMT52	20.000	88.812	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT55	-0.053	-0.032	2.0	86.1	
								B_MR6_GMT54	0.027	0.017	1.0	85.3	
								B_MR6_GMT59	0.026	0.015	1.0	86.9	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT53	0.400	86.155	-7.8	0.000	0.000	0.027	0.016	B_MR6_GMT54	-0.027	-0.016	52.4	85.0	
B_MR6_GMT54	20.000	88.808	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT52	-0.027	-0.017	1.0	84.3	
								B_MR6_GMT53	0.027	0.017	1.0	84.3	
B_MR6_GMT55	20.000	88.819	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT38	-0.053	-0.031	2.0	86.6	
								B_MR6_GMT52	0.053	0.031	2.0	86.6	
B_MR6_GMT58	0.400	87.296	-7.4	0.000	0.000	0.015	0.010	B_MR6_GMT59	-0.015	-0.010	29.9	85.0	
B_MR6_GMT59	20.000	88.808	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT52	-0.026	-0.016	1.0	85.8	
								B_MR6_GMT61	0.011	0.006	0.4	87.5	
								B_MR6_GMT58	0.016	0.010	0.6	84.6	
B_MR6_GMT60	0.400	88.294	-7.1	0.000	0.000	0.011	0.007	B_MR6_GMT61	-0.011	-0.007	20.3	85.0	
B_MR6_GMT61	20.000	88.806	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT59	-0.011	-0.007	0.4	84.9	
								B_MR6_GMT60	0.011	0.007	0.4	84.9	
B_MR6_GMT62	0.400	88.059	-7.2	0.000	0.000	0.003	0.002	B_MR6_GMT63	-0.003	-0.002	6.3	85.0	
B_MR6_GMT63	20.000	88.691	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT35	-2.719	-1.579	102.3	86.5	
								B_MR6_GMT65	2.715	1.577	102.2	86.5	
								B_MR6_GMT62	0.003	0.002	0.1	84.8	
B_MR6_GMT64	0.400	87.671	-7.3	0.000	0.000	0.009	0.006	B_MR6_GMT65	-0.009	-0.006	17.3	85.0	
B_MR6_GMT65	20.000	88.543	-7.0	0.000	0.000	0.000	0.000	B_MR6_GMT63	-2.711	-1.574	102.2	86.5	
								B_MR6_GMT73	2.702	1.568	101.9	86.5	
								B_MR6_GMT64	0.009	0.006	0.3	84.8	
B_MR6_GMT70	0.400	86.717	-7.5	0.000	0.000	0.017	0.011	B_MR6_GMT73	-0.017	-0.011	33.2	85.0	
B_MR6_GMT71	0.400	85.502	-7.9	0.000	0.000	0.014	0.008	B_MR6_GMT72	-0.014	-0.008	27.2	85.0	
B_MR6_GMT72	20.000	88.249	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT73	-2.677	-1.551	101.2	86.5	
								B_MR6_GMT77	2.663	1.542	100.7	86.5	
								B_MR6_GMT71	0.014	0.009	0.5	84.2	
B_MR6_GMT73	20.000	88.396	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT65	-2.698	-1.565	101.9	86.5	
								B_MR6_GMT72	2.681	1.554	101.2	86.5	
								B_MR6_GMT70	0.017	0.011	0.7	84.5	
B_MR6_GMT74	0.400	85.518	-7.9	0.000	0.000	0.026	0.016	B_MR6_GMT77	-0.026	-0.016	51.1	85.0	
B_MR6_GMT75	0.400	85.205	-7.9	0.000	0.000	0.027	0.017	B_MR6_GMT76	-0.027	-0.017	54.4	85.0	
B_MR6_GMT76	20.000	87.959	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT77	-2.629	-1.519	99.7	86.6	
								B_MR6_GMT81	2.601	1.501	98.6	86.6	
								B_MR6_GMT75	0.028	0.018	1.1	84.2	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT77	20.000	88.103	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT72	-2.660	-1.539	100.7	86.6	
								B_MR6_GMT76	2.633	1.522	99.7	86.6	
								B_MR6_GMT74	0.026	0.017	1.0	84.3	
B_MR6_GMT80	0.400	85.433	-7.8	0.000	0.000	0.047	0.029	B_MR6_GMT81	-0.047	-0.029	94.3	85.0	
B_MR6_GMT81	20.000	87.817	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT76	-2.598	-1.498	98.6	86.6	
								B_MR6_GMT83	2.549	1.468	96.7	86.7	
								B_MR6_GMT80	0.048	0.031	1.9	84.3	
B_MR6_GMT82	0.400	87.362	-7.2	0.000	0.000	0.002	0.002	B_MR6_GMT84	-0.002	-0.002	4.7	85.0	
B_MR6_GMT83	20.000	87.601	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT81	-2.543	-1.464	96.7	86.7	
								B_MR6_GMT84	0.002	0.001	0.1	95.2	
								B_MR6_GMT88	2.541	1.463	96.6	86.7	
B_MR6_GMT84	20.000	87.600	-7.1	0.000	0.000	0.000	0.000	B_MR6_GMT83	-0.002	-0.002	0.1	84.9	
								B_MR6_GMT82	0.002	0.002	0.1	84.9	
B_MR6_GMT87	0.400	85.281	-7.8	0.000	0.000	0.042	0.026	B_MR6_GMT88	-0.042	-0.026	83.2	85.0	
B_MR6_GMT88	20.000	87.385	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT83	-2.535	-1.459	96.6	86.7	
								B_MR6_GMT92	2.493	1.432	95.0	86.7	
								B_MR6_GMT87	0.043	0.027	1.7	84.4	
B_MR6_GMT91	0.400	86.291	-7.4	0.000	0.000	0.018	0.011	B_MR6_GMT92	-0.018	-0.011	34.9	85.0	
B_MR6_GMT92	20.000	87.172	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT88	-2.487	-1.428	95.0	86.7	
								B_MR6_GMT97	2.469	1.417	94.3	86.7	
								B_MR6_GMT91	0.018	0.011	0.7	84.8	
B_MR6_GMT96	0.400	86.235	-7.4	0.000	0.000	0.007	0.004	B_MR6_GMT99	-0.007	-0.004	14.3	85.0	
B_MR6_GMT97	20.000	86.962	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT92	-2.463	-1.414	94.3	86.7	
								B_MR6_GMT98	0.025	0.014	1.0	87.8	
								B_MR6_GMT111	2.438	1.400	93.3	86.7	
B_MR6_GMT98	20.000	86.958	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT97	-0.025	-0.014	1.0	86.7	
								B_MR6_GMT99	0.007	0.004	0.3	88.5	
								B_MR6_GMT103	0.018	0.011	0.7	86.0	
B_MR6_GMT99	20.000	86.957	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT98	-0.007	-0.005	0.3	84.8	
								B_MR6_GMT96	0.007	0.005	0.3	84.8	
B_MR6_GMT102	0.400	85.175	-7.7	0.000	0.000	0.018	0.011	B_MR6_GMT103	-0.018	-0.011	35.2	85.0	
B_MR6_GMT103	20.000	86.955	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT98	-0.018	-0.011	0.7	84.5	
								B_MR6_GMT102	0.018	0.011	0.7	84.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
B_MR6_GMT109	0.400	86.306	-7.3	0.000	0.000	0.002	0.001	B_MR6_GMT113	-0.002	-0.001	4.8	85.0	
B_MR6_GMT110	0.400	83.970	-8.0	0.000	0.000	0.027	0.017	B_MR6_GMT111	-0.027	-0.017	55.0	85.0	
B_MR6_GMT111	20.000	86.753	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT97	-2.433	-1.396	93.3	86.7	
								B_MR6_GMT112	2.405	1.378	92.2	86.8	
								B_MR6_GMT110	0.028	0.018	1.1	84.2	
B_MR6_GMT112	20.000	86.547	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT111	-2.400	-1.375	92.2	86.8	
								B_MR6_GMT113	0.002	0.001	0.1	95.0	
								B_MR6_GMT117	2.397	1.374	92.2	86.8	
B_MR6_GMT113	20.000	86.546	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT112	-0.002	-0.002	0.1	84.9	
								B_MR6_GMT109	0.002	0.002	0.1	84.9	
B_MR6_GMT116	0.400	83.801	-8.0	0.000	0.000	0.025	0.015	B_MR6_GMT117	-0.025	-0.015	50.2	85.0	
B_MR6_GMT117	20.000	86.341	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT112	-2.392	-1.371	92.2	86.8	
								B_MR6_GMT128	2.366	1.354	91.2	86.8	
								B_MR6_GMT116	0.025	0.016	1.0	84.3	
B_MR6_GMT123	0.400	86.025	-7.3	0.000	0.000	0.001	0.000	B_MR6_GMT124	-0.001	0.000	1.6	85.0	
B_MR6_GMT124	20.000	86.185	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT125	-0.001	-0.001	0.0	85.0	
								B_MR6_GMT123	0.001	0.001	0.0	85.0	
B_MR6_GMT125	20.000	86.186	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT128	-0.016	-0.009	0.6	87.4	
								B_MR6_GMT124	0.001	0.000	0.0	-96.9	
								B_MR6_GMT127	0.016	0.009	0.6	85.8	
B_MR6_GMT126	0.400	83.048	-8.2	0.000	0.000	0.015	0.009	B_MR6_GMT127	-0.015	-0.009	31.0	85.0	
B_MR6_GMT127	20.000	86.183	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT125	-0.016	-0.010	0.6	84.1	
								B_MR6_GMT126	0.016	0.010	0.6	84.1	
B_MR6_GMT128	20.000	86.188	-7.2	0.000	0.000	0.000	0.000	B_MR6_GMT117	-2.363	-1.352	91.2	86.8	
								B_MR6_GMT125	0.016	0.008	0.6	89.0	
								MR6 V UJUNG2	2.346	1.343	90.6	86.8	
B_MR6_GMT130	20.000	84.549	-7.4	0.000	0.000	0.000	0.000	GH TILAMUTA	-1.564	-0.944	62.4	85.6	
								B_LMT1_GMT3	0.335	0.198	13.3	86.1	
								B_LMT1_GMT80	1.229	0.746	49.1	85.5	
GH LEMITO	20.000	86.214	-6.2	0.000	0.000	0.000	0.000	Bus_LM1_249	-1.417	-0.840	55.2	86.0	
								Bus_LM1_251	1.417	0.840	55.2	86.0	
GH MARISA	20.000	94.733	-3.9	0.000	0.000	0.000	0.000	B_LM3	3.982	2.515	143.5	84.5	
								B_AG2_GK7	-3.982	-2.515	143.5	84.5	

Bus		Voltage		Generation		Load		Load Flow					XFMR
ID	kV	% Mag.	Ang.	MW	Mvar	MW	Mvar	ID	MW	Mvar	Amp	%PF	%Tap
GH MARISA1	20.000	98.655	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_1	0.809	0.440	26.9	87.9	
								B_MR3	-1.243	-0.675	41.4	87.9	
								Bus_LM1_169	0.434	0.235	14.4	88.0	
GH TILAMUTA	20.000	84.598	-7.4	0.000	0.000	0.000	0.000	MR6 V UJUNG2	-2.306	-1.331	90.8	86.6	
								B_MR6_GMT130	1.565	0.931	62.1	85.9	
								B_LMT2_1	0.741	0.400	28.7	88.0	
GI MARISA	20.000	103.158	-3.7	0.000	0.000	0.000	0.000	Bus_MR1_GMP94	1.845	1.109	60.3	85.7	
								B_AG2_GK7	4.329	2.732	143.3	84.6	
								B_MR04_GM	5.117	3.120	167.7	85.4	
								B_MR6_GMP1	3.890	2.493	129.3	84.2	
								B_GI_MARISA	-15.182	-9.453	500.5	84.9	8.000
LM1 V UJUNG	20.000	97.778	-4.4	0.000	0.000	0.000	0.000	Bus_LM1_46	0.000	0.000	0.0	0.0	
LM3 V UJUNG	20.000	89.111	-5.4	0.000	0.000	0.000	0.000	Bus_LM3_113	-2.069	-1.257	78.4	85.5	
								LO1 V UJUNG	2.069	1.257	78.4	85.5	
LM4 V UJUNG	20.000	98.445	-4.3	0.000	0.000	0.000	0.000	Bus_LM1_167	0.000	0.000	0.0	0.0	
LMT1 V UJUNG	20.000	83.284	-7.4	0.000	0.000	0.000	0.000	B_LMT1_GMT195	0.000	0.000	0.0	0.0	
LMT2 V UJUNG	20.000	82.261	-7.6	0.000	0.000	0.000	0.000	B_LMT2_GMT262	0.000	0.000	0.0	0.0	
LO1 V UJUNG	20.000	89.111	-5.4	0.000	0.000	0.000	0.000	Bus_LM1_215	2.069	1.257	78.4	85.5	
								LM3 V UJUNG	-2.069	-1.257	78.4	85.5	
LO2 V UJUNG	20.000	84.373	-6.4	0.000	0.000	0.000	0.000	Bus_LM1_383	0.000	0.000	0.0	0.0	
MR1 V UJUNG	20.000	99.263	-3.9	0.000	0.000	0.000	0.000	Bus_MR1_GMP82	0.000	0.000	0.0	0.0	
MR6 V UJUNG	20.000	90.398	-6.8	0.000	0.000	0.000	0.000	B_MR6_GMP2	-2.961	-1.732	109.5	86.3	
								B_MR6_GMP82	2.961	1.732	109.5	86.3	
MR6 V UJUNG2	20.000	84.670	-7.4	0.000	0.000	0.000	0.000	GH TILAMUTA	2.307	1.318	90.6	86.8	
								B_MR6_GMT128	-2.307	-1.318	90.6	86.8	

* Indicates a voltage regulated bus (voltage controlled or swing type machine connected to it)

\# Indicates a bus with a load mismatch of more than 0.1 MVA

Bus Loading Summary Report

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_PLTD_TILAMUTA	6.300													
Bus_LM1_1	20.000										0.930	87.0	27.2	
Bus_LM1_2	0.400		0.028	0.017	0.007	0.004					0.041	85.0	60.3	
Bus_LM1_3	20.000										0.929	87.0	27.2	
Bus_LM1_6	0.400		0.017	0.011	0.004	0.002					0.024	85.0	37.3	
Bus_LM1_7	20.000										0.887	87.0	26.0	
Bus_LM1_8	0.400		0.033	0.020	0.008	0.005					0.047	85.0	70.8	
Bus_LM1_9	20.000										0.486	87.0	14.3	
Bus_LM1_10	0.400		0.002	0.001	0.000	-					0.003	85.0	4.4	
Bus_LM1_11	20.000										0.438	87.1	12.9	
Bus_LM1_12	0.400		0.034	0.021	0.008	0.005					0.049	85.0	74.8	
Bus_LM1_13	20.000										0.436	87.0	12.8	
Bus_LM1_14	0.400		0.022	0.014	0.005	0.003					0.033	85.0	48.6	
Bus_LM1_15	20.000										0.385	87.2	11.3	
Bus_LM1_16	0.400		0.018	0.011	0.004	0.003					0.026	85.0	38.4	
Bus_LM1_17	20.000										0.353	87.3	10.4	
Bus_LM1_18	0.400		0.017	0.011	0.004	0.002					0.025	85.0	37.0	
Bus_LM1_19	20.000										0.327	87.3	9.6	
Bus_LM1_20	0.400		0.023	0.014	0.005	0.003					0.033	85.0	51.4	
Bus_LM1_21	20.000										0.303	87.4	8.9	
Bus_LM1_25	20.000										0.268	87.6	7.9	
Bus_LM1_26	0.400		0.013	0.008	0.003	0.002					0.019	85.0	28.0	
Bus_LM1_31	20.000										0.251	87.4	7.4	
Bus_LM1_32	0.400		0.016	0.010	0.004	0.002					0.023	85.0	34.0	
Bus_LM1_33	20.000										0.059	87.9	1.7	
Bus_LM1_34	0.400		0.012	0.008	0.003	0.002					0.018	85.0	26.6	
Bus_LM1_35	20.000										0.184	87.5	5.4	
Bus_LM1_36	0.400		0.008	0.005	0.002	0.001					0.012	85.0	17.7	
Bus_LM1_37	20.000										0.228	87.4	6.7	
Bus_LM1_38	0.400		0.019	0.012	0.004	0.003					0.028	85.0	41.5	
Bus_LM1_39	20.000										0.201	87.5	5.9	
Bus_LM1_40	0.400		0.012	0.007	0.003	0.002					0.017	85.0	25.1	
Bus_LM1_41	20.000										0.250	87.6	7.4	
Bus_LM1_42	20.000										0.041	87.9	1.2	
Bus_LM1_43	0.400		0.010	0.006	0.002	0.001					0.015	85.0	22.3	
Bus_LM1_44	20.000										0.027	87.6	0.8	
Bus_LM1_45	0.400		0.016	0.010	0.004	0.002					0.024	85.0	35.2	
Bus_LM1_46	20.000										0.004	84.9	0.1	
Bus_LM1_47	0.400		0.003	0.002	0.001	-					0.004	85.0	5.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_58	0.400		0.006	0.004	0.001	0.001					0.009	85.0	13.3	
Bus_LM1_59	20.000										0.115	86.5	3.4	
Bus_LM1_60	0.400		0.016	0.010	0.003	0.002					0.022	85.0	34.4	
Bus_LM1_61	0.400		0.018	0.011	0.004	0.003					0.026	85.0	38.5	
Bus_LM1_62	0.400		0.020	0.013	0.005	0.003					0.029	85.0	44.5	
Bus_LM1_63	20.000										0.030	84.4	0.9	
Bus_LM1_64	20.000										0.056	85.5	1.6	
Bus_LM1_65	20.000										0.078	85.9	2.3	
Bus_LM1_66	20.000										0.106	86.1	3.1	
Bus_LM1_67	0.400		0.020	0.012	0.005	0.003					0.029	85.0	42.7	
Bus_LM1_70	20.000										0.377	87.0	11.1	
Bus_LM1_71	0.400		0.022	0.014	0.005	0.003					0.033	85.0	48.5	
Bus_LM1_74	20.000										0.344	87.0	10.1	
Bus_LM1_75	0.400		0.014	0.009	0.003	0.002					0.021	85.0	30.9	
Bus_LM1_76	20.000										0.324	87.0	9.5	
Bus_LM1_77	0.400		0.012	0.007	0.003	0.002					0.017	85.0	24.9	
Bus_LM1_78	20.000										0.307	86.9	9.0	
Bus_LM1_79	0.400		0.009	0.005	0.002	0.001					0.013	85.0	19.1	
Bus_LM1_80	20.000										0.295	86.8	8.7	
Bus_LM1_81	0.400		0.038	0.024	0.009	0.005					0.055	85.0	82.8	
Bus_LM1_82	20.000										0.239	87.1	7.0	
Bus_LM1_83	0.400		0.003	0.002	0.001	0.001					0.005	85.0	7.3	
Bus_LM1_84	20.000										0.235	86.9	6.9	
Bus_LM1_85	0.400		0.003	0.002	0.001	0.001					0.005	85.0	7.3	
Bus_LM1_86	20.000										0.230	86.7	6.8	
Bus_LM1_87	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.5	
Bus_LM1_91	20.000										0.197	86.8	5.8	
Bus_LM1_92	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.5	
Bus_LM1_93	20.000										0.163	87.0	4.8	
Bus_LM1_94	0.400		0.006	0.004	0.001	0.001					0.009	85.0	13.2	
Bus_LM1_95	20.000										0.130	86.7	3.8	
Bus_LM1_96	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.5	
Bus_LM1_97	20.000										0.155	86.7	4.6	
Bus_LM1_98	0.400		0.017	0.011	0.004	0.002					0.025	85.0	37.0	
Bus_LM1_99	20.000										0.097	86.9	2.9	
Bus_LM1_100	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.5	
Bus_LM1_101	20.000										0.063	87.3	1.9	
Bus_LM1_102	0.400		0.010	0.006	0.002	0.001					0.014	85.0	20.6	
Bus_LM1_111	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.5	
Bus_LM1_112	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.3	
Bus_LM1_113	20.000										0.007	84.9	0.2	
Bus_LM1_114	20.000										0.041	85.9	1.2	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_115	20.000										0.050	86.8	1.5	
Bus_LM1_116	0.400		0.007	0.004	0.002	0.001					0.010	85.0	14.8	
Bus_LM1_123	0.400		0.038	0.024	0.009	0.005					0.055	85.0	82.6	
Bus_LM1_124	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.2	
Bus_LM1_125	20.000										0.205	85.8	6.0	
Bus_LM1_126	20.000										0.198	85.6	5.8	
Bus_LM1_127	20.000										0.143	85.6	4.2	
Bus_LM1_128	0.400		0.034	0.021	0.008	0.005					0.049	85.0	74.6	
Bus_LM1_135	0.400		0.002	0.001	0.000	-					0.003	85.0	4.4	
Bus_LM1_136	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.3	
Bus_LM1_137	20.000										0.092	85.8	2.7	
Bus_LM1_138	20.000										0.059	85.5	1.7	
Bus_LM1_139	20.000										0.056	84.5	1.7	
Bus_LM1_140	0.400		0.038	0.024	0.009	0.005					0.055	85.0	82.7	
Bus_LM1_147	0.400		0.009	0.005	0.002	0.001					0.013	85.0	19.0	
Bus_LM1_148	0.400		0.010	0.006	0.002	0.001					0.014	85.0	20.5	
Bus_LM1_149	20.000										0.052	86.8	1.5	
Bus_LM1_150	20.000										0.257	86.5	7.5	
Bus_LM1_151	20.000										0.503	86.3	14.7	
Bus_LM1_152	0.400		0.029	0.018	0.007	0.004					0.041	85.0	62.4	
Bus_LM1_153	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.3	
Bus_LM1_154	0.400		0.010	0.006	0.002	0.002					0.015	85.0	21.9	
Bus_LM1_155	20.000										0.193	85.9	5.7	
Bus_LM1_156	20.000										0.034	84.4	1.0	
Bus_LM1_157	20.000										0.039	86.0	1.1	
Bus_LM1_158	0.400		0.003	0.002	0.001	0.001					0.005	85.0	7.3	
Bus_LM1_159	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.3	
Bus_LM1_160	0.400		0.023	0.014	0.005	0.003					0.033	85.0	50.3	
Bus_LM1_161	20.000										0.090	85.6	2.6	
Bus_LM1_162	20.000										0.123	85.7	3.6	
Bus_LM1_163	20.000										0.179	85.7	5.2	
Bus_LM1_164	0.400		0.038	0.024	0.009	0.005					0.055	85.0	82.7	
Bus_LM1_167	20.000										0.056	84.5	1.7	
Bus_LM1_168	0.400		0.038	0.024	0.009	0.005					0.055	85.0	82.7	
Bus_LM1_169	20.000										0.502	86.4	14.7	
Bus_LM1_189	20.000										0.191	86.2	6.2	
Bus_LM1_190	20.000										0.049	84.8	1.6	
Bus_LM1_191	20.000										0.144	86.2	4.7	
Bus_LM1_193	20.000										0.310	86.2	10.1	
Bus_LM1_195	20.000										0.286	86.2	9.3	
Bus_LM1_196	20.000										0.262	86.2	8.5	
Bus_LM1_197	20.000										0.238	86.2	7.7	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_198	20.000										0.024	84.7	0.8	
Bus_LM1_200	20.000										0.191	86.1	6.2	
Bus_LM1_202	20.000										0.167	86.0	5.4	
Bus_LM1_203	20.000										0.143	85.9	4.7	
Bus_LM1_204	20.000										0.024	84.5	0.8	
Bus_LM1_209	20.000										0.024	84.7	0.8	
Bus_LM1_210	20.000										0.048	85.5	1.6	
Bus_LM1_211	20.000										0.072	85.6	2.3	
Bus_LM1_212	20.000										0.096	85.7	3.1	
Bus_LM1_215	20.000										2.417	85.5	78.4	
Bus_LM1_217	20.000										2.395	85.5	77.8	
Bus_LM1_218	20.000										2.337	85.6	76.1	
Bus_LM1_219	20.000										2.301	85.6	75.0	
Bus_LM1_220	20.000										2.264	85.7	73.9	
Bus_LM1_221	20.000										2.228	85.7	72.9	
Bus_LM1_222	20.000										2.192	85.8	71.8	
Bus_LM1_224	20.000										2.155	85.8	70.7	
Bus_LM1_226	20.000										2.129	85.8	69.9	
Bus_LM1_227	20.000										2.102	85.9	69.1	
Bus_LM1_228	20.000										2.075	85.9	68.4	
Bus_LM1_229	20.000										2.048	86.0	67.6	
Bus_LM1_230	20.000										0.047	85.8	1.6	
Bus_LM1_231	20.000										0.024	84.7	0.8	
Bus_LM1_232	20.000										1.974	86.0	65.2	
Bus_LM1_233	20.000										1.947	86.0	64.4	
Bus_LM1_236	20.000										1.895	86.1	62.8	
Bus_LM1_237	20.000										1.921	86.1	63.6	
Bus_LM1_238	20.000										1.842	86.2	61.3	
Bus_LM1_239	20.000										1.868	86.1	62.1	
Bus_LM1_240	20.000										1.790	86.2	59.7	
Bus_LM1_241	20.000										1.816	86.2	60.5	
Bus_LM1_242	20.000										0.047	85.7	1.6	
Bus_LM1_243	20.000										1.764	86.3	58.9	
Bus_LM1_244	20.000										1.691	86.3	56.5	
Bus_LM1_245	20.000										0.024	84.8	0.8	
Bus_LM1_249	20.000										1.665	86.4	55.7	
Bus_LM1_251	20.000										1.654	85.6	55.4	
Bus_LM1_253	20.000										1.628	85.7	54.6	
Bus_LM1_254	20.000										1.602	85.7	53.8	
Bus_LM1_255	20.000										1.576	85.7	53.0	
Bus_LM1_258	20.000										1.525	85.7	51.4	
Bus_LM1_259	20.000										1.550	85.7	52.2	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_264	20.000										1.423	85.8	48.2	
Bus_LM1_265	20.000										1.448	85.8	49.0	
Bus_LM1_266	20.000										1.474	85.8	49.8	
Bus_LM1_267	20.000										1.499	85.7	50.6	
Bus_LM1_270	20.000										0.047	85.5	1.6	
Bus_LM1_271	20.000										0.024	84.7	0.8	
Bus_LM1_274	20.000										0.165	86.1	5.6	
Bus_LM1_275	20.000										1.350	85.8	45.8	
Bus_LM1_277	20.000										0.142	86.0	4.8	
Bus_LM1_278	20.000										1.325	85.8	45.0	
Bus_LM1_281	20.000										0.095	85.8	3.2	
Bus_LM1_282	20.000										0.118	85.9	4.0	
Bus_LM1_283	20.000										0.048	85.4	1.6	
Bus_LM1_284	20.000										0.071	85.7	2.4	
Bus_LM1_285	20.000										0.048	85.4	1.6	
Bus_LM1_286	20.000										0.024	84.4	0.8	
Bus_LM1_288	20.000										0.024	84.4	0.8	
Bus_LM1_292	20.000										0.024	84.7	0.8	
Bus_LM1_293	20.000										0.048	85.2	1.6	
Bus_LM1_294	20.000										0.072	85.3	2.4	
Bus_LM1_298	20.000										0.993	85.8	33.8	
Bus_LM1_299	20.000										1.018	85.7	34.6	
Bus_LM1_300	20.000										1.042	85.7	35.4	
Bus_LM1_304	20.000										0.024	84.4	0.8	
Bus_LM1_305	20.000										0.047	85.3	1.6	
Bus_LM1_306	20.000										0.071	85.8	2.4	
Bus_LM1_307	20.000										0.968	85.8	32.9	
Bus_LM1_309	20.000										0.897	85.7	30.6	
Bus_LM1_312	20.000										0.024	84.4	0.8	
Bus_LM1_313	20.000										0.047	85.3	1.6	
Bus_LM1_318	20.000										0.024	84.7	0.8	
Bus_LM1_319	20.000										0.047	85.6	1.6	
Bus_LM1_320	20.000										0.072	85.3	2.4	
Bus_LM1_321	20.000										0.096	85.2	3.3	
Bus_LM1_322	20.000										0.826	85.7	28.1	
Bus_LM1_327	20.000										0.657	85.8	22.4	
Bus_LM1_328	20.000										0.682	85.8	23.3	
Bus_LM1_329	20.000										0.706	85.7	24.1	
Bus_LM1_330	20.000										0.730	85.7	24.9	
Bus_LM1_335	20.000										0.094	86.0	3.2	
Bus_LM1_336	20.000										0.117	86.0	4.0	
Bus_LM1_337	20.000										0.142	85.8	4.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM1_338	20.000										0.166	85.9	5.7	
Bus_LM1_343	20.000										0.070	85.8	2.4	
Bus_LM1_344	20.000										0.047	85.6	1.6	
Bus_LM1_345	20.000										0.142	85.6	4.9	
Bus_LM1_346	20.000										0.024	84.7	0.8	
Bus_LM1_353	20.000										0.350	85.6	12.0	
Bus_LM1_354	20.000										0.024	84.4	0.8	
Bus_LM1_355	20.000										0.047	85.3	1.6	
Bus_LM1_356	20.000										0.071	85.6	2.4	
Bus_LM1_357	20.000										0.094	85.8	3.2	
Bus_LM1_358	20.000										0.118	85.8	4.0	
Bus_LM1_359	20.000										0.350	85.6	12.0	
Bus_LM1_361	20.000										0.327	85.6	11.2	
Bus_LM1_362	20.000										0.303	85.6	10.3	
Bus_LM1_366	20.000										0.024	84.7	0.8	
Bus_LM1_367	20.000										0.047	85.5	1.6	
Bus_LM1_368	20.000										0.019	84.0	0.7	
Bus_LM1_369	20.000										0.279	85.7	9.5	
Bus_LM1_375	20.000										0.166	85.5	5.7	
Bus_LM1_376	20.000										0.189	85.5	6.5	
Bus_LM1_377	20.000										0.214	85.4	7.3	
Bus_LM1_380	20.000										0.118	85.7	4.0	
Bus_LM1_383	20.000										0.024	84.4	0.8	
Bus_LM1_384	20.000										0.048	85.1	1.6	
Bus_LM1_385	20.000										0.024	84.4	0.8	
Bus_LM1_386	20.000										0.047	85.3	1.6	
Bus_LM3_3	20.000										4.654	84.5	142.8	
Bus_LM3_4	0.400		0.023	0.014	0.005	0.003					0.033	85.0	51.9	
Bus_LM3_5	20.000										4.607	84.6	141.8	
Bus_LM3_6	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.0	
Bus_LM3_7	20.000										4.561	84.6	140.7	
Bus_LM3_8	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.1	
Bus_LM3_9	20.000										4.515	84.7	139.7	
Bus_LM3_10	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.2	
Bus_LM3_11	20.000										4.469	84.7	138.7	
Bus_LM3_12	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.3	
Bus_LM3_13	20.000										4.423	84.8	137.6	
Bus_LM3_14	0.400		0.007	0.004	0.001	0.001					0.010	85.0	15.3	
Bus_LM3_27	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.7	
Bus_LM3_28	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.8	
Bus_LM3_29	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.9	
Bus_LM3_30	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
Bus_LM3_31	0.400		0.007	0.004	0.001	0.001					0.010	85.0	15.5	
Bus_LM3_32	20.000										0.043	85.6	1.4	
Bus_LM3_33	20.000										4.210	85.1	133.2	
Bus_LM3_34	20.000										4.254	85.1	134.2	
Bus_LM3_35	20.000										4.299	85.0	135.3	
Bus_LM3_36	20.000										4.344	85.0	136.3	
Bus_LM3_37	20.000										4.390	84.9	137.3	
Bus_LM3_38	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.6	
Bus_LM3_40	0.400		0.023	0.014	0.005	0.003					0.033	85.0	53.0	
Bus_LM3_41	20.000										0.034	84.3	1.1	
Bus_LM3_56	0.400		0.038	0.024	0.007	0.005					0.053	85.0	88.0	
Bus_LM3_57	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.6	
Bus_LM3_58	0.400		0.038	0.024	0.007	0.005					0.053	85.0	87.8	
Bus_LM3_59	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.1	
Bus_LM3_60	0.400		0.013	0.008	0.002	0.002					0.018	85.0	29.9	
Bus_LM3_61	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.2	
Bus_LM3_62	0.400		0.013	0.008	0.003	0.002					0.018	85.0	29.8	
Bus_LM3_63	20.000										4.123	85.2	130.8	
Bus_LM3_64	20.000										4.094	85.2	130.2	
Bus_LM3_65	20.000										4.050	85.3	129.1	
Bus_LM3_66	20.000										4.021	85.4	128.6	
Bus_LM3_67	20.000										3.986	85.4	127.8	
Bus_LM3_68	20.000										0.894	86.0	28.7	
Bus_LM3_69	20.000										0.860	86.0	27.7	
Bus_LM3_74	0.400		0.038	0.024	0.007	0.004					0.053	85.0	88.2	
Bus_LM3_75	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.7	
Bus_LM3_76	20.000										0.805	86.1	25.9	
Bus_LM3_77	20.000										0.771	86.1	24.9	
Bus_LM3_78	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.8	
Bus_LM3_79	0.400		0.038	0.024	0.007	0.004					0.053	85.0	88.3	
Bus_LM3_80	20.000										0.716	86.2	23.1	
Bus_LM3_81	20.000										0.661	86.2	21.4	
Bus_LM3_82	0.400		0.038	0.024	0.007	0.005					0.053	85.0	87.8	
Bus_LM3_83	0.400		0.038	0.024	0.007	0.004					0.053	85.0	88.4	
Bus_LM3_84	20.000										0.628	86.3	20.3	
Bus_LM3_85	20.000										0.178	85.5	5.7	
Bus_LM3_86	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.5	
Bus_LM3_87	0.400		0.013	0.008	0.002	0.002					0.018	85.0	30.0	
Bus_LM3_88	20.000										0.124	85.5	4.0	
Bus_LM3_89	20.000										0.106	85.3	3.4	
Bus_LM3_94	0.400		0.038	0.024	0.007	0.005					0.053	85.0	87.9	
Bus_LM3_95	0.400		0.013	0.008	0.002	0.002					0.018	85.0	30.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM3_96	20.000										0.073	85.0	2.3	
Bus_LM3_97	20.000										0.055	84.4	1.8	
Bus_LM3_108	0.400		0.013	0.008	0.002	0.002					0.018	85.0	30.0	
Bus_LM3_109	0.400		0.038	0.024	0.007	0.005					0.053	85.0	88.1	
Bus_LM3_110	0.400		0.038	0.024	0.007	0.004					0.053	85.0	88.2	
Bus_LM3_111	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.1	
Bus_LM3_112	0.400		0.038	0.024	0.007	0.004					0.053	85.0	88.4	
Bus_LM3_113	20.000										2.479	85.4	80.2	
Bus_LM3_114	20.000										2.502	85.4	80.8	
Bus_LM3_115	20.000										2.716	85.4	87.6	
Bus_LM3_116	20.000										2.830	85.3	91.1	
Bus_LM3_117	20.000										2.854	85.3	91.7	
Bus_LM3_128	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.1	
Bus_LM3_129	0.400		0.038	0.024	0.007	0.004					0.053	85.0	88.2	
Bus_LM3_130	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.1	
Bus_LM3_131	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.8	
Bus_LM3_132	0.400		0.023	0.014	0.004	0.003					0.032	85.0	53.8	
Bus_LM3_133	20.000										0.033	84.3	1.1	
Bus_LM3_134	20.000										0.066	85.0	2.1	
Bus_LM3_135	20.000										0.084	85.4	2.7	
Bus_LM3_136	20.000										0.138	85.4	4.5	
Bus_LM3_137	20.000										0.156	85.6	5.0	
Bus_LM3_140	20.000										0.573	86.4	18.6	
Bus_LM3_141	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.1	
Bus_LM3_144	20.000										0.549	86.4	17.8	
Bus_LM3_145	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.4	
Bus_LM3_146	20.000										0.524	86.4	17.0	
Bus_LM3_147	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.2	
Bus_LM3_152	20.000										0.500	86.4	16.2	
Bus_LM3_153	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_156	20.000										0.024	84.5	0.8	
Bus_LM3_157	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_159	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.2	
Bus_LM3_160	20.000										0.096	86.0	3.1	
Bus_LM3_161	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_162	20.000										0.072	85.8	2.3	
Bus_LM3_163	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_164	20.000										0.048	85.5	1.6	
Bus_LM3_165	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_166	20.000										0.024	84.5	0.8	
Bus_LM3_167	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_170	20.000										0.024	84.5	0.8	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM3_171	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_173	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_175	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_176	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_177	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.2	
Bus_LM3_178	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.2	
Bus_LM3_180	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.6	
Bus_LM3_182	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.3	
Bus_LM3_183	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.6	
Bus_LM3_184	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.6	
Bus_LM3_188	20.000										4.700	84.4	143.8	
Bus_LM3_188_	20.000										4.402	84.8	137.3	
Bus_LM3_189	0.400		0.023	0.014	0.005	0.003					0.033	85.0	51.8	
Bus_LM3_191	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.6	
Bus_LM3_192	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.3	
Bus_LM3_193	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.3	
Bus_LM3_194	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.6	
Bus_LM3_196	0.400		0.013	0.008	0.002	0.001					0.018	85.0	30.3	
Bus_LM3_198	0.400		0.038	0.024	0.007	0.004					0.053	85.0	88.7	
Bus_LM3_199	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.1	
Bus_LM3_200	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.2	
Bus_LM3_201	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.2	
Bus_LM3_202	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.3	
Bus_LM3_203	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.4	
Bus_LM3_205	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_207	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.5	
Bus_LM3_208	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.9	
Bus_LM3_209	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.9	
Bus_LM3_210	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.9	
Bus_LM3_211	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.6	
Bus_LM3_212	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.6	
Bus_LM3_213	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.7	
Bus_LM3_214	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.0	
Bus_LM3_217	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.1	
Bus_LM3_218	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.1	
Bus_LM3_219	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_220	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.1	
Bus_LM3_221	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_222	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_223	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.0	
Bus_LM3_224	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_225	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM3_226	0.400		0.017	0.011	0.003	0.002					0.024	85.0	39.8	
Bus_LM3_230	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.0	
Bus_LM3_232	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.4	
Bus_LM3_234	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.4	
Bus_LM3_235	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_236	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_239	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_240	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_245	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.4	
Bus_LM3_246	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.7	
Bus_LM3_247	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_248	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.2	
Bus_LM3_251	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.7	
Bus_LM3_252	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.3	
Bus_LM3_255	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.4	
Bus_LM3_256	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.4	
Bus_LM3_258	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_261	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_262	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_263	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_264	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_265	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_266	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_268	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_272	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_273	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.4	
Bus_LM3_274	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.5	
Bus_LM3_278	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_279	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.6	
Bus_LM3_280	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.8	
Bus_LM3_284	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_285	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_286	0.400		0.017	0.011	0.003	0.002					0.024	85.0	40.5	
Bus_LM3_288	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_291	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_292	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_297	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.9	
Bus_LM3_298	0.400		0.017	0.011	0.003	0.002					0.023	85.0	42.9	
Bus_LM3_299	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.5	
Bus_LM3_300	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.5	
Bus_LM3_305	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	
Bus_LM3_306	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_LM3_307	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.7	
Bus_LM3_308	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_313	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_314	0.400		0.017	0.011	0.003	0.002					0.023	85.0	43.0	
Bus_LM3_315	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_316	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_321	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_322	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_323	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_324	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_331	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.7	
Bus_LM3_332	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_333	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_334	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_335	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_336	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_338	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_339	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_343	0.400		0.014	0.008	0.002	0.001					0.019	85.0	33.2	
Bus_LM3_344	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_345	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_350	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.8	
Bus_LM3_351	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_352	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_354	0.400		0.017	0.011	0.003	0.002					0.023	85.0	40.6	
Bus_LM3_357	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_358	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_359	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_360	0.400		0.017	0.011	0.003	0.002					0.023	85.0	41.0	
Bus_LM3_362	0.400		0.038	0.024	0.007	0.005					0.053	85.0	88.1	
Bus_MR1_GMP1	0.400		0.024	0.015	0.006	0.004					0.035	85.0	50.5	
Bus_MR1_GMP2	20.000										2.156	85.3	60.6	
Bus_MR1_GMP5	0.400		0.024	0.015	0.006	0.004					0.035	85.0	50.7	
Bus_MR1_GMP6	20.000										2.088	85.3	59.0	
Bus_MR1_GMP7	0.400		0.027	0.017	0.007	0.004					0.040	85.0	58.1	
Bus_MR1_GMP8	20.000										2.046	85.3	58.0	
Bus_MR1_GMP9	0.400		0.054	0.034	0.013	0.008					0.080	85.0	116.5	
Bus_MR1_GMP10	20.000										1.999	85.3	56.9	
Bus_MR1_GMP11	0.400		0.102	0.063	0.025	0.015					0.149	85.0	218.6	
Bus_MR1_GMP12	20.000										1.912	85.3	54.6	
Bus_MR1_GMP13	0.400		0.027	0.017	0.007	0.004					0.040	85.0	58.5	
Bus_MR1_GMP14	20.000										1.755	85.4	50.2	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_MR1_GMP15	0.400		0.027	0.017	0.006	0.004					0.040	85.0	58.6	
Bus_MR1_GMP16	20.000										1.710	85.4	49.1	
Bus_MR1_GMP17	0.400		0.027	0.017	0.006	0.004					0.040	85.0	58.7	
Bus_MR1_GMP18	20.000										1.666	85.4	47.9	
Bus_MR1_GMP19	0.400		0.054	0.034	0.013	0.008					0.079	85.0	117.6	
Bus_MR1_GMP20	20.000										1.621	85.4	46.8	
Bus_MR1_GMP21	0.400		0.027	0.017	0.006	0.004					0.040	85.0	58.9	
Bus_MR1_GMP22	20.000										1.537	85.4	44.4	
Bus_MR1_GMP23	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
Bus_MR1_GMP24	20.000										1.493	85.4	43.3	
Bus_MR1_GMP25	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.0	
Bus_MR1_GMP26	20.000										0.709	85.3	20.6	
Bus_MR1_GMP27	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.1	
Bus_MR1_GMP28	20.000										0.628	85.4	18.2	
Bus_MR1_GMP29	0.400		0.017	0.011	0.004	0.002					0.025	85.0	37.1	
Bus_MR1_GMP30	20.000										0.026	84.1	0.7	
Bus_MR1_GMP31	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.2	
Bus_MR1_GMP32	20.000										0.522	85.4	15.2	
Bus_MR1_GMP33	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP34	20.000										0.441	85.5	12.8	
Bus_MR1_GMP35	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP36	20.000										0.401	85.5	11.7	
Bus_MR1_GMP37	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP38	20.000										0.361	85.4	10.5	
Bus_MR1_GMP43	20.000										0.120	85.3	3.5	
Bus_MR1_GMP44	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP45	20.000										0.081	85.0	2.3	
Bus_MR1_GMP46	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP47	20.000										0.041	84.3	1.2	
Bus_MR1_GMP48	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP49	20.000										0.161	85.0	4.7	
Bus_MR1_GMP50	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.3	
Bus_MR1_GMP51	20.000										0.081	85.0	2.3	
Bus_MR1_GMP52	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP53	20.000										0.041	84.3	1.2	
Bus_MR1_GMP54	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP55	20.000										0.743	85.3	21.6	
Bus_MR1_GMP56	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.0	
Bus_MR1_GMP57	20.000										0.081	84.3	2.4	
Bus_MR1_GMP58	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.0	
Bus_MR1_GMP59	20.000										0.081	84.3	2.4	
Bus_MR1_GMP60	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
Bus_MR1_GMP61	20.000										0.041	84.3	1.2	
Bus_MR1_GMP62	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
Bus_MR1_GMP63	20.000										0.041	84.3	1.2	
Bus_MR1_GMP64	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
Bus_MR1_GMP65	20.000										0.122	84.3	3.5	
Bus_MR1_GMP66	0.400		0.082	0.051	0.019	0.012					0.118	85.0	176.8	
Bus_MR1_GMP72	20.000										0.260	85.6	7.6	
Bus_MR1_GMP73	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
Bus_MR1_GMP74	20.000										0.220	85.6	6.4	
Bus_MR1_GMP75	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP76	20.000										0.180	85.6	5.2	
Bus_MR1_GMP77	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP78	20.000										0.140	85.5	4.1	
Bus_MR1_GMP79	0.400		0.014	0.008	0.003	0.002					0.020	85.0	29.5	
Bus_MR1_GMP80	20.000										0.121	85.3	3.5	
Bus_MR1_GMP81	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.1	
Bus_MR1_GMP82	20.000										0.081	84.3	2.4	
Bus_MR1_GMP83	0.400		0.054	0.034	0.013	0.008					0.079	85.0	118.2	
Bus_MR1_GMP86	20.000										0.160	85.4	4.7	
Bus_MR1_GMP87	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.2	
Bus_MR1_GMP92	20.000										2.114	85.3	59.6	
Bus_MR1_GMP93	0.400		0.014	0.008	0.003	0.002					0.020	85.0	29.0	
Bus_MR1_GMP94	20.000										2.163	85.3	60.5	
Bus_MR1_GMP97	20.000										0.300	85.7	8.7	
Bus_MR1_GMP98	0.400		0.027	0.017	0.006	0.004					0.039	85.0	59.0	
B_AG2_GK7	20.000										4.707	84.7	143.3	
B_GI_MARISA	150.000										18.724	81.3	72.1	
B_LM3	20.000										4.713	84.4	143.8	
B_LMT1_GMT1	20.000										0.085	83.9	2.9	
B_LMT1_GMT2	0.400		0.059	0.037	0.010	0.006					0.081	85.0	144.6	
B_LMT1_GMT3	20.000										0.389	86.0	13.3	
B_LMT1_GMT7	0.400		0.024	0.015	0.004	0.003					0.034	85.0	59.5	
B_LMT1_GMT8	20.000										0.035	84.1	1.2	
B_LMT1_GMT9	20.000										0.305	86.4	10.4	
B_LMT1_GMT16	0.400		0.007	0.004	0.001	0.001					0.009	85.0	16.2	
B_LMT1_GMT17	20.000										0.009	84.8	0.3	
B_LMT1_GMT18	0.400		0.015	0.009	0.003	0.002					0.021	85.0	35.7	
B_LMT1_GMT19	20.000										0.021	84.7	0.7	
B_LMT1_GMT20	20.000										0.262	86.3	9.0	
B_LMT1_GMT21	20.000										0.271	86.4	9.3	
B_LMT1_GMT25	0.400		0.003	0.002	0.000	-					0.004	85.0	6.5	
B_LMT1_GMT27	20.000										0.242	86.1	8.3	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT1_GMT28	20.000										0.034	86.1	1.2	
B_LMT1_GMT32	0.400		0.022	0.013	0.004	0.002					0.030	85.0	52.8	
B_LMT1_GMT33	20.000										0.031	84.2	1.1	
B_LMT1_GMT34	20.000										0.030	85.2	1.0	
B_LMT1_GMT35	20.000										0.208	85.9	7.1	
B_LMT1_GMT39	0.400		0.006	0.004	0.001	0.001					0.008	85.0	14.6	
B_LMT1_GMT41	20.000										0.083	85.1	2.8	
B_LMT1_GMT42	20.000										0.082	85.5	2.8	
B_LMT1_GMT45	0.400		0.032	0.020	0.005	0.003					0.044	85.0	77.1	
B_LMT1_GMT46	20.000										0.075	84.8	2.6	
B_LMT1_GMT47	0.400		0.021	0.013	0.004	0.002					0.029	85.0	51.1	
B_LMT1_GMT48	20.000										0.030	84.3	1.0	
B_LMT1_GMT55	0.400		0.002	0.001	0.000	-					0.003	85.0	4.8	
B_LMT1_GMT56	0.400		0.020	0.012	0.003	0.002					0.027	85.0	47.8	
B_LMT1_GMT57	0.400		0.024	0.015	0.004	0.003					0.033	85.0	57.2	
B_LMT1_GMT58	20.000										0.097	85.1	3.3	
B_LMT1_GMT59	20.000										0.124	85.2	4.3	
B_LMT1_GMT60	20.000										0.127	85.4	4.3	
B_LMT1_GMT61	20.000										0.127	85.6	4.3	
B_LMT1_GMT66	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.2	
B_LMT1_GMT67	0.400		0.007	0.005	0.001	0.001					0.010	85.0	17.8	
B_LMT1_GMT68	20.000										0.010	84.9	0.4	
B_LMT1_GMT69	20.000										0.064	84.9	2.2	
B_LMT1_GMT75	0.400		0.020	0.013	0.003	0.002					0.028	85.0	49.4	
B_LMT1_GMT76	0.400		0.011	0.007	0.002	0.001					0.015	85.0	26.1	
B_LMT1_GMT77	20.000										0.015	84.6	0.5	
B_LMT1_GMT78	20.000										0.068	85.7	2.3	
B_LMT1_GMT79	20.000										0.097	85.6	3.3	
B_LMT1_GMT80	20.000										1.435	85.5	49.1	
B_LMT1_GMT84	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.1	
B_LMT1_GMT85	20.000										0.054	84.3	1.8	
B_LMT1_GMT86	20.000										0.053	84.9	1.8	
B_LMT1_GMT90	0.400		0.014	0.008	0.002	0.001					0.019	85.0	32.8	
B_LMT1_GMT91	20.000										0.019	84.5	0.7	
B_LMT1_GMT92	20.000										1.336	85.4	45.8	
B_LMT1_GMT98	0.400		0.048	0.030	0.008	0.005					0.066	85.0	117.8	
B_LMT1_GMT99	0.400		0.004	0.003	0.001	-					0.006	85.0	9.7	
B_LMT1_GMT100	20.000										0.006	85.0	0.2	
B_LMT1_GMT101	20.000										0.074	84.6	2.5	
B_LMT1_GMT102	20.000										0.073	85.0	2.5	
B_LMT1_GMT103	20.000										1.315	85.4	45.2	
B_LMT1_GMT107	0.400		0.056	0.035	0.009	0.006					0.076	85.0	136.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT1_GMT108	20.000										0.079	84.0	2.7	
B_LMT1_GMT109	20.000										1.240	85.4	42.7	
B_LMT1_GMT110	20.000										1.159	85.4	40.0	
B_LMT1_GMT116	20.000										0.126	84.8	4.3	
B_LMT1_GMT117	0.400		0.061	0.038	0.010	0.006					0.084	85.0	149.1	
B_LMT1_GMT118	0.400		0.029	0.018	0.005	0.003					0.039	85.0	69.2	
B_LMT1_GMT119	20.000										0.040	84.5	1.4	
B_LMT1_GMT120	20.000										0.126	84.6	4.4	
B_LMT1_GMT121	20.000										0.546	86.0	18.8	
B_LMT1_GMT125	0.400		0.037	0.023	0.006	0.004					0.050	85.0	91.3	
B_LMT1_GMT126	20.000										0.053	83.6	1.8	
B_LMT1_GMT127	20.000										0.420	86.2	14.5	
B_LMT1_GMT128	0.400		0.014	0.008	0.002	0.001					0.019	85.0	32.6	
B_LMT1_GMT129	20.000										0.019	84.9	0.7	
B_LMT1_GMT130	20.000										0.368	86.4	12.7	
B_LMT1_GMT137	0.400		0.025	0.016	0.004	0.003					0.035	85.0	60.9	
B_LMT1_GMT138	20.000										0.035	84.6	1.2	
B_LMT1_GMT139	0.400		0.013	0.008	0.002	0.001					0.018	85.0	31.1	
B_LMT1_GMT140	20.000										0.018	84.8	0.6	
B_LMT1_GMT141	20.000										0.315	86.4	10.9	
B_LMT1_GMT142	20.000										0.350	86.3	12.1	
B_LMT1_GMT146	0.400		0.049	0.030	0.008	0.005					0.067	85.0	120.2	
B_LMT1_GMT147	20.000										0.069	84.1	2.4	
B_LMT1_GMT148	20.000										0.298	86.3	10.3	
B_LMT1_GMT152	20.000										0.097	85.7	3.4	
B_LMT1_GMT153	0.400		0.027	0.016	0.004	0.003					0.036	85.0	64.3	
B_LMT1_GMT154	20.000										0.097	85.4	3.4	
B_LMT1_GMT155	20.000										0.060	85.4	2.1	
B_LMT1_GMT156	0.400		0.021	0.013	0.003	0.002					0.029	85.0	51.6	
B_LMT1_GMT157	20.000										0.229	86.6	7.9	
B_LMT1_GMT162	0.400		0.009	0.005	0.001	0.001					0.012	85.0	21.3	
B_LMT1_GMT163	20.000										0.031	85.5	1.1	
B_LMT1_GMT164	20.000										0.019	84.5	0.7	
B_LMT1_GMT165	0.400		0.014	0.008	0.002	0.001					0.019	85.0	33.0	
B_LMT1_GMT169	0.400		0.004	0.003	0.001	-					0.006	85.0	9.8	
B_LMT1_GMT170	20.000										0.006	84.9	0.2	
B_LMT1_GMT171	20.000										0.132	86.9	4.6	
B_LMT1_GMT179	0.400		0.012	0.008	0.002	0.001					0.017	85.0	30.1	
B_LMT1_GMT180	20.000										0.017	84.1	0.6	
B_LMT1_GMT181	20.000										0.053	85.0	1.8	
B_LMT1_GMT182	0.400		0.026	0.016	0.004	0.003					0.035	85.0	62.7	
B_LMT1_GMT183	20.000										0.127	86.5	4.4	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT1_GMT187	0.400		0.039	0.024	0.007	0.004					0.054	85.0	95.6	
B_LMT1_GMT188	20.000										0.055	84.6	1.9	
B_LMT1_GMT189	20.000										0.075	86.9	2.6	
B_LMT1_GMT190	0.400		0.003	0.002	0.001	-					0.005	85.0	8.2	
B_LMT1_GMT191	20.000										0.005	84.8	0.2	
B_LMT1_GMT192	20.000										0.021	89.9	0.7	
B_LMT1_GMT193	0.400		0.012	0.008	0.002	0.001					0.017	85.0	29.7	
B_LMT1_GMT194	20.000										0.017	84.6	0.6	
B_LMT1_GMT195	20.000										0.017	86.3	0.6	
B_LMT1_GMT199	20.000										0.087	84.9	3.0	
B_LMT1_GMT200	0.400		0.037	0.023	0.006	0.004					0.051	85.0	91.0	
B_LMT1_GMT201	20.000										0.087	84.6	3.0	
B_LMT1_GMT202	20.000										0.035	84.1	1.2	
B_LMT1_GMT203	0.400		0.024	0.015	0.004	0.002					0.033	85.0	59.9	
B_LMT1_GMT207	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.7	
B_LMT1_GMT208	20.000										0.054	84.3	1.9	
B_LMT1_GMT209	20.000										0.527	84.8	18.2	
B_LMT1_GMT213	0.400		0.047	0.029	0.008	0.005					0.064	85.0	114.9	
B_LMT1_GMT215	20.000										0.473	84.7	16.4	
B_LMT1_GMT218	0.400		0.042	0.026	0.007	0.004					0.058	85.0	103.0	
B_LMT1_GMT219	20.000										0.407	84.7	14.1	
B_LMT1_GMT223	0.400		0.029	0.018	0.005	0.003					0.040	85.0	72.1	
B_LMT1_GMT224	20.000										0.042	83.9	1.4	
B_LMT1_GMT225	20.000										0.347	84.7	12.0	
B_LMT1_GMT226	0.400		0.046	0.028	0.007	0.005					0.062	85.0	111.6	
B_LMT1_GMT227	20.000										0.064	84.2	2.2	
B_LMT1_GMT228	20.000										0.306	84.6	10.6	
B_LMT1_GMT235	0.400		0.033	0.021	0.006	0.003					0.046	85.0	81.1	
B_LMT1_GMT236	0.400		0.023	0.014	0.004	0.002					0.032	85.0	56.7	
B_LMT1_GMT237	20.000										0.196	84.3	6.8	
B_LMT1_GMT238	20.000										0.242	84.5	8.4	
B_LMT1_GMT243	0.400		0.045	0.028	0.007	0.004					0.061	85.0	113.0	
B_LMT1_GMT244	20.000										0.086	84.9	3.0	
B_LMT1_GMT245	20.000										0.163	84.2	5.7	
B_LMT1_GMT246	0.400		0.053	0.033	0.008	0.005					0.072	85.0	135.0	
B_LMT1_GMT250	0.400		0.012	0.008	0.002	0.001					0.017	85.0	30.1	
B_LMT1_GMT251	20.000										0.017	84.1	0.6	
B_LMT1_GMT252	20.000										0.021	88.3	0.7	
B_LMT1_GMT253	0.400		0.003	0.002	0.001	-					0.005	85.0	8.2	
B_LMT1_GMT254	20.000										0.005	84.8	0.2	
B_LMT1_GMT255	20.000										0.004	90.8	0.2	
B_LMT2_1	20.000										0.848	87.3	28.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT2_GMT1	20.000										0.847	87.3	28.9	
B_LMT2_GMT2	0.400		0.021	0.013	0.004	0.002					0.029	85.0	51.1	
B_LMT2_GMT3	20.000										0.846	87.3	29.0	
B_LMT2_GMT6	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.2	
B_LMT2_GMT7	20.000										0.816	87.4	28.0	
B_LMT2_GMT10	0.400		0.003	0.002	0.001	-					0.005	85.0	8.1	
B_LMT2_GMT11	20.000										0.761	87.5	26.1	
B_LMT2_GMT12	20.000										0.005	84.8	0.2	
B_LMT2_GMT16	20.000										0.756	87.5	26.0	
B_LMT2_GMT17	0.400		0.027	0.016	0.004	0.003					0.036	85.0	64.9	
B_LMT2_GMT18	20.000										0.038	84.1	1.3	
B_LMT2_GMT23	0.400		0.023	0.014	0.004	0.002					0.032	85.0	56.4	
B_LMT2_GMT24	0.400		0.038	0.024	0.006	0.004					0.052	85.0	92.5	
B_LMT2_GMT25	20.000										0.685	87.7	23.6	
B_LMT2_GMT26	20.000										0.719	87.6	24.7	
B_LMT2_GMT27	0.400		0.029	0.018	0.005	0.003					0.040	85.0	71.9	
B_LMT2_GMT28	0.400		0.008	0.005	0.001	0.001					0.011	85.0	19.6	
B_LMT2_GMT29	20.000										0.590	88.2	20.3	
B_LMT2_GMT30	20.000										0.631	87.9	21.8	
B_LMT2_GMT33	0.400		0.020	0.013	0.003	0.002					0.028	85.0	49.8	
B_LMT2_GMT34	20.000										0.578	88.1	20.0	
B_LMT2_GMT35	20.000										0.578	88.2	20.0	
B_LMT2_GMT39	20.000										0.549	88.3	19.0	
B_LMT2_GMT40	0.400		0.003	0.002	0.000	-					0.004	85.0	6.5	
B_LMT2_GMT41	20.000										0.004	84.8	0.1	
B_LMT2_GMT44	0.400		0.014	0.008	0.002	0.001					0.019	85.0	33.5	
B_LMT2_GMT45	20.000										0.545	88.2	18.9	
B_LMT2_GMT46	0.400		0.012	0.007	0.002	0.001					0.016	85.0	28.0	
B_LMT2_GMT47	20.000										0.526	88.3	18.2	
B_LMT2_GMT52	0.400		0.022	0.013	0.004	0.002					0.030	85.0	53.3	
B_LMT2_GMT53	0.400		0.012	0.008	0.002	0.001					0.017	85.0	30.1	
B_LMT2_GMT54	20.000										0.479	88.6	16.6	
B_LMT2_GMT55	20.000										0.510	88.4	17.7	
B_LMT2_GMT59	20.000										0.462	88.7	16.0	
B_LMT2_GMT60	0.400		0.004	0.003	0.001	-					0.006	85.0	9.8	
B_LMT2_GMT61	20.000										0.006	84.9	0.2	
B_LMT2_GMT66	0.400		0.004	0.003	0.001	-					0.006	85.0	9.8	
B_LMT2_GMT67	20.000										0.456	88.6	15.9	
B_LMT2_GMT68	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT69	20.000										0.451	88.6	15.7	
B_LMT2_GMT70	20.000										0.448	88.5	15.6	
B_LMT2_GMT71	20.000										0.106	89.1	3.7	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT2_GMT75	20.000										0.106	88.8	3.7	
B_LMT2_GMT76	0.400		0.003	0.002	0.001	-					0.005	85.0	8.2	
B_LMT2_GMT77	20.000										0.005	84.8	0.2	
B_LMT2_GMT81	20.000										0.102	88.5	3.6	
B_LMT2_GMT82	0.400		0.003	0.002	0.000	-					0.004	85.0	6.5	
B_LMT2_GMT83	20.000										0.004	84.9	0.1	
B_LMT2_GMT90	0.400		0.023	0.014	0.004	0.002					0.032	85.0	56.9	
B_LMT2_GMT91	20.000										0.033	84.2	1.1	
B_LMT2_GMT92	20.000										0.081	88.1	2.8	
B_LMT2_GMT93	20.000										0.099	88.1	3.4	
B_LMT2_GMT94	0.400		0.014	0.008	0.002	0.001					0.019	85.0	32.9	
B_LMT2_GMT95	20.000										0.019	84.8	0.7	
B_LMT2_GMT108	0.400		0.006	0.004	0.001	0.001					0.008	85.0	14.8	
B_LMT2_GMT109	20.000										0.008	84.8	0.3	
B_LMT2_GMT110	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT111	20.000										0.003	84.9	0.1	
B_LMT2_GMT112	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT113	20.000										0.004	84.9	0.1	
B_LMT2_GMT114	20.000										0.035	86.7	1.2	
B_LMT2_GMT115	20.000										0.038	88.0	1.3	
B_LMT2_GMT116	20.000										0.045	88.6	1.6	
B_LMT2_GMT117	20.000										0.049	89.4	1.7	
B_LMT2_GMT118	0.400		0.003	0.002	0.000	-					0.004	85.0	6.5	
B_LMT2_GMT119	20.000										0.004	84.9	0.1	
B_LMT2_GMT123	0.400		0.023	0.014	0.004	0.002					0.032	85.0	57.0	
B_LMT2_GMT124	20.000										0.033	84.2	1.1	
B_LMT2_GMT125	20.000										0.032	85.1	1.1	
B_LMT2_GMT130	0.400		0.003	0.002	0.000	-					0.004	85.0	6.5	
B_LMT2_GMT131	20.000										0.342	88.2	11.9	
B_LMT2_GMT132	0.400		0.005	0.003	0.001	0.001					0.007	85.0	13.1	
B_LMT2_GMT133	20.000										0.339	88.2	11.8	
B_LMT2_GMT145	20.000										0.331	88.2	11.6	
B_LMT2_GMT146	0.400		0.010	0.006	0.002	0.001					0.014	85.0	24.8	
B_LMT2_GMT147	20.000										0.014	84.6	0.5	
B_LMT2_GMT152	0.400		0.011	0.007	0.002	0.001					0.015	85.0	26.5	
B_LMT2_GMT153	20.000										0.318	88.1	11.1	
B_LMT2_GMT154	0.400		0.007	0.004	0.001	0.001					0.009	85.0	16.5	
B_LMT2_GMT155	20.000										0.303	88.2	10.6	
B_LMT2_GMT158	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT159	20.000										0.293	88.2	10.2	
B_LMT2_GMT160	20.000												-	
B_LMT2_GMT161	20.000										0.291	88.1	10.2	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT2_GMT165	0.400		0.007	0.004	0.001	0.001					0.009	85.0	16.5	
B_LMT2_GMT166	20.000										0.009	84.8	0.3	
B_LMT2_GMT167	20.000										0.291	87.9	10.2	
B_LMT2_GMT168	20.000										0.291	88.0	10.2	
B_LMT2_GMT175	0.400		0.011	0.007	0.002	0.001					0.015	85.0	26.4	
B_LMT2_GMT176	20.000										0.015	84.8	0.5	
B_LMT2_GMT177	0.400		0.001	0.001	0.000	-					0.002	85.0	3.3	
B_LMT2_GMT178	20.000										0.002	85.0	0.1	
B_LMT2_GMT179	20.000										0.002	97.8	0.1	
B_LMT2_GMT180	20.000										0.016	89.1	0.6	
B_LMT2_GMT181	20.000										0.283	87.8	9.9	
B_LMT2_GMT188	0.400		0.007	0.005	0.001	0.001					0.010	85.0	18.2	
B_LMT2_GMT189	20.000										0.010	84.7	0.4	
B_LMT2_GMT190	0.400		0.023	0.014	0.004	0.002					0.032	85.0	57.2	
B_LMT2_GMT191	20.000										0.033	84.1	1.1	
B_LMT2_GMT192	20.000										0.257	87.4	9.0	
B_LMT2_GMT193	20.000										0.267	87.5	9.3	
B_LMT2_GMT194	0.400		0.001	0.000	0.000	-					0.001	85.0	1.6	
B_LMT2_GMT195	20.000										0.001	85.0	-	
B_LMT2_GMT196	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT197	20.000										0.004	84.9	0.1	
B_LMT2_GMT198	20.000										0.225	87.4	7.9	
B_LMT2_GMT199	20.000										0.225	87.6	7.9	
B_LMT2_GMT203	0.400		0.027	0.016	0.004	0.003					0.036	85.0	64.9	
B_LMT2_GMT204	20.000										0.037	84.5	1.3	
B_LMT2_GMT205	20.000										0.222	87.2	7.8	
B_LMT2_GMT206	0.400		0.019	0.012	0.003	0.002					0.026	85.0	46.9	
B_LMT2_GMT207	20.000										0.027	84.3	0.9	
B_LMT2_GMT208	20.000										0.185	87.4	6.5	
B_LMT2_GMT215	0.400		0.021	0.013	0.003	0.002					0.029	85.0	52.1	
B_LMT2_GMT216	20.000										0.030	84.2	1.0	
B_LMT2_GMT217	20.000										0.029	85.2	1.0	
B_LMT2_GMT218	20.000										0.057	85.7	2.0	
B_LMT2_GMT219	0.400		0.020	0.013	0.003	0.002					0.028	85.0	50.3	
B_LMT2_GMT220	20.000										0.029	84.3	1.0	
B_LMT2_GMT221	20.000										0.159	87.5	5.6	
B_LMT2_GMT228	0.400		0.019	0.012	0.003	0.002					0.026	85.0	46.9	
B_LMT2_GMT229	20.000										0.027	84.3	0.9	
B_LMT2_GMT230	0.400		0.002	0.001	0.000	-					0.003	85.0	4.9	
B_LMT2_GMT231	20.000										0.003	84.9	0.1	
B_LMT2_GMT232	20.000										0.003	94.3	0.1	
B_LMT2_GMT233	20.000										0.029	87.3	1.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_LMT2_GMT243	0.400		0.003	0.002	0.000	-					0.004	85.0	6.6	
B_LMT2_GMT244	20.000										0.004	84.9	0.1	
B_LMT2_GMT245	0.400		0.021	0.013	0.003	0.002					0.029	85.0	51.5	
B_LMT2_GMT246	20.000										0.029	84.6	1.0	
B_LMT2_GMT247	0.400		0.001	0.001	0.000	-					0.002	85.0	3.3	
B_LMT2_GMT248	20.000										0.002	84.9	0.1	
B_LMT2_GMT249	20.000										0.042	87.6	1.5	
B_LMT2_GMT250	20.000										0.071	87.2	2.5	
B_LMT2_GMT251	20.000										0.074	87.8	2.6	
B_LMT2_GMT258	0.400		0.005	0.003	0.001	0.001					0.007	85.0	13.2	
B_LMT2_GMT259	20.000										0.041	86.4	1.4	
B_LMT2_GMT260	0.400		0.001	0.001	0.000	-					0.002	85.0	3.3	
B_LMT2_GMT261	0.400		0.023	0.014	0.004	0.002					0.031	85.0	57.3	
B_LMT2_GMT262	20.000										0.033	84.1	1.1	
B_LMT2_GMT263	20.000										0.034	85.9	1.2	
B_MR3	20.000										1.406	88.4	41.1	
B_MR04_GM	20.000										5.996	85.2	168.0	
B_MR04_GM1	20.000										2.195	84.4	61.6	
B_MR04_GM_1	0.400		0.025	0.015	0.006	0.004					0.037	85.0	52.7	
B_MR04_GM2	20.000										2.155	84.4	60.6	
B_MR04_GM_2	0.400		1.428	0.885	0.358	0.222					2.101	85.0	3027.9	
B_MR04_GM3	20.000										3.792	85.7	106.4	
B_MR04_GM_3	0.400		0.030	0.019	0.008	0.005					0.045	85.0	64.0	
B_MR04_GM4	20.000										0.029	85.8	0.8	
B_MR04_GM_4	0.400		0.009	0.006	0.002	0.002					0.014	85.0	19.9	
B_MR04_GM5	20.000										0.015	84.5	0.4	
B_MR04_GM_5	0.400		0.010	0.006	0.003	0.002					0.015	85.0	20.9	
B_MR04_GM6	20.000										3.709	85.8	104.4	
B_MR04_GM_6	0.400		0.014	0.008	0.003	0.002					0.020	85.0	29.2	
B_MR04_GM7	20.000										3.680	85.8	103.8	
B_MR04_GM_7	0.400		0.021	0.013	0.005	0.003					0.030	85.0	45.0	
B_MR04_GM8	20.000										3.639	85.8	102.9	
B_MR04_GM_8	0.400		0.001	0.000	0.000	-					0.001	85.0	1.4	
B_MR04_GM9	20.000										3.630	85.8	102.9	
B_MR04_GM_9	0.400		0.062	0.038	0.014	0.009					0.089	85.0	135.1	
B_MR04_GM10	20.000										3.527	85.9	100.2	
B_MR04_GM_10	0.400		0.013	0.008	0.003	0.002					0.019	85.0	26.9	
B_MR04_GM11	20.000										3.500	85.9	99.7	
B_MR04_GM_11	0.400		0.046	0.029	0.009	0.006					0.065	85.0	103.9	
B_MR04_GM12	20.000										3.419	86.0	97.6	
B_MR04_GM_12	0.400		0.015	0.009	0.004	0.002					0.021	85.0	31.4	
B_MR04_GM13	20.000										0.240	83.5	7.0	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_MR04_GM_13	0.400		0.079	0.049	0.016	0.010					0.112	85.0	180.3	
B_MR04_GM14	20.000										0.117	84.0	3.4	
B_MR04_GM_14	0.400		0.058	0.036	0.012	0.008					0.082	85.0	128.3	
B_MR04_GM15	20.000										0.115	83.5	3.3	
B_MR04_GM_15	0.400		0.045	0.028	0.009	0.005					0.063	85.0	103.0	
B_MR04_GM16	20.000										1.591	88.0	46.4	
B_MR04_GM_16	0.400		0.004	0.002	0.001	0.001					0.005	85.0	7.7	
B_MR04_GM17	20.000										1.470	88.3	42.9	
B_MR04_GM_17	0.400		0.028	0.017	0.006	0.004					0.040	85.0	60.8	
B_MR04_GM18	20.000										1.428	88.4	41.7	
B_MR04_GM_18	0.400		0.014	0.009	0.003	0.002					0.020	85.0	30.0	
B_MR04_GM19	20.000										0.252	84.1	7.3	
B_MR04_GM_19	0.400		0.077	0.048	0.017	0.011					0.111	85.0	168.4	
B_MR04_GM20	20.000										0.136	84.0	4.0	
B_MR04_GM_20	0.400		0.051	0.031	0.011	0.007					0.073	85.0	112.6	
B_MR04_GM21	20.000										0.060	83.9	1.7	
B_MR04_GM_21	0.400		0.040	0.025	0.009	0.005					0.057	85.0	86.8	
B_MR04_GM22	20.000										2.107	87.1	61.4	
B_MR04_GM_22	0.400		0.017	0.010	0.004	0.003					0.025	85.0	36.3	
B_MR04_GM23	20.000										2.185	86.9	63.5	
B_MR04_GM_23	0.400		0.048	0.030	0.009	0.006					0.067	85.0	109.7	
B_MR04_GM24	20.000										2.299	86.8	66.7	
B_MR04_GM_24	0.400		0.041	0.026	0.009	0.006					0.060	85.0	90.6	
B_MR04_GM25	20.000										2.233	86.8	64.9	
B_MR04_GM_25	0.400		0.031	0.019	0.007	0.005					0.045	85.0	66.2	
B_MR04_GM26	20.000										3.390	86.0	97.0	
B_MR04_GM_26	0.400		0.023	0.014	0.006	0.003					0.034	85.0	49.8	
B_MR04_GM27	20.000										3.348	86.1	96.0	
B_MR04_GM_27	0.400		0.059	0.037	0.013	0.008					0.085	85.0	130.5	
B_MR04_GM28	20.000										2.862	86.3	82.2	
B_MR04_GM_28	0.400		0.017	0.010	0.004	0.003					0.024	85.0	35.5	
B_MR04_GM29	20.000										2.832	86.3	81.5	
B_MR04_GM_29	0.400		0.026	0.016	0.006	0.004					0.037	85.0	55.3	
B_MR04_GM30	20.000										2.788	86.4	80.4	
B_MR04_GM_30	0.400		0.053	0.033	0.012	0.007					0.076	85.0	116.3	
B_MR04_GM31	20.000										2.703	86.4	78.1	
B_MR04_GM_31	0.400		0.023	0.014	0.006	0.003					0.033	85.0	49.0	
B_MR04_GM32	20.000										2.307	86.8	66.8	
B_MR04_GM_32	0.400		0.003	0.002	0.001	0.001					0.005	85.0	7.4	
B_MR04_GM33	20.000										0.359	84.4	10.4	
B_MR04_GM_33	0.400		0.013	0.008	0.003	0.002					0.019	85.0	28.1	
B_MR04_GM34	20.000										0.340	84.3	9.8	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_MR04_GM_34	0.400		0.055	0.034	0.013	0.008					0.080	85.0	119.5	
B_MR04_GM35	20.000										0.257	84.2	7.4	
B_MR04_GM_35	0.400		0.065	0.041	0.014	0.009					0.093	85.0	146.0	
B_MR04_GM36	20.000										0.033	85.7	1.0	
B_MR04_GM_36	0.400		0.004	0.003	0.001	0.001					0.006	85.0	9.2	
B_MR04_GM37	20.000										0.027	84.8	0.8	
B_MR04_GM_37	0.400		0.018	0.011	0.004	0.003					0.027	85.0	39.3	
B_MR04_GM38	20.000										0.065	83.8	1.9	
B_MR04_GM_38	0.400		0.043	0.026	0.010	0.006					0.062	85.0	93.6	
B_MR04_GM39	20.000										0.124	84.1	3.6	
B_MR04_GM_39	0.400		0.040	0.024	0.009	0.006					0.057	85.0	86.3	
B_MR04_GM40	20.000										0.390	84.9	11.2	
B_MR04_GM_40	0.400		0.043	0.027	0.010	0.006					0.063	85.0	93.1	
B_MR04_GM41	20.000										0.326	84.9	9.3	
B_MR04_GM_41	0.400		0.048	0.029	0.011	0.007					0.069	85.0	102.2	
B_MR04_GM42	20.000										0.036	85.6	1.0	
B_MR04_GM_42	0.400		0.014	0.009	0.003	0.002					0.020	85.0	29.6	
B_MR04_GM43	20.000										0.016	84.7	0.5	
B_MR04_GM_43	0.400		0.011	0.007	0.003	0.002					0.016	85.0	23.0	
B_MR04_GM44	20.000										0.219	84.7	6.3	
B_MR04_GM_44	0.400		0.056	0.035	0.013	0.008					0.082	85.0	120.9	
B_MR04_GM45	20.000										0.135	84.7	3.9	
B_MR04_GM_45	0.400		0.015	0.009	0.004	0.002					0.021	85.0	31.3	
B_MR04_GM46	20.000										0.114	84.5	3.3	
B_MR04_GM_46	0.400		0.035	0.022	0.009	0.005					0.051	85.0	75.3	
B_MR04_GM47	20.000										0.061	83.9	1.8	
B_MR04_GM_47	0.400		0.041	0.025	0.009	0.006					0.059	85.0	88.2	
B_MR04_GM48	20.000										0.044	84.6	1.3	
B_MR04_GM_48	0.400		0.030	0.019	0.007	0.004					0.044	85.0	64.7	
B_MR04_GM49	20.000										0.029	84.7	0.8	
B_MR04_GM_49	0.400		0.020	0.012	0.005	0.003					0.029	85.0	42.1	
B_MR6_GMP1	20.000										4.627	84.0	129.6	
B_MR6_GMP2	20.000										3.469	86.2	109.5	
B_MR6_GMP3	0.400		0.013	0.008	0.003	0.002					0.019	85.0	27.5	
B_MR6_GMP4	20.000										4.585	84.2	129.6	
B_MR6_GMP6	0.400		0.023	0.014	0.006	0.003					0.034	85.0	49.5	
B_MR6_GMP7	20.000										4.524	84.4	129.1	
B_MR6_GMP10	0.400		0.017	0.011	0.004	0.003					0.025	85.0	36.5	
B_MR6_GMP11	20.000										4.448	84.5	128.2	
B_MR6_GMP12	0.400		0.010	0.006	0.002	0.002					0.015	85.0	21.8	
B_MR6_GMP13	20.000										4.382	84.7	127.5	
B_MR6_GMP14	0.400		0.033	0.021	0.008	0.005					0.048	85.0	72.3	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_MR6_GMP15	20.000										4.327	84.9	127.1	
B_MR6_GMP16	20.000										4.238	85.1	125.7	
B_MR6_GMP19	20.000										0.258	85.3	7.6	
B_MR6_GMP20	0.400		0.038	0.024	0.009	0.005					0.055	85.0	83.3	
B_MR6_GMP21	20.000										0.056	84.5	1.7	
B_MR6_GMP24	0.400		0.020	0.012	0.004	0.003					0.028	85.0	43.2	
B_MR6_GMP25	20.000										0.202	85.2	6.0	
B_MR6_GMP26	20.000										0.029	84.5	0.9	
B_MR6_GMP30	20.000										0.174	84.8	5.2	
B_MR6_GMP31	0.400		0.021	0.013	0.005	0.003					0.030	85.0	46.2	
B_MR6_GMP32	20.000										0.031	84.4	0.9	
B_MR6_GMP35	0.400		0.097	0.060	0.022	0.013					0.140	85.0	213.7	
B_MR6_GMP36	20.000										0.144	84.3	4.3	
B_MR6_GMP37	20.000										0.050	89.9	1.5	
B_MR6_GMP42	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.3	
B_MR6_GMP43	0.400		0.008	0.005	0.002	0.001					0.012	85.0	17.7	
B_MR6_GMP44	20.000										0.018	86.9	0.5	
B_MR6_GMP45	20.000										0.007	84.9	0.2	
B_MR6_GMP46	20.000										0.018	89.0	0.5	
B_MR6_GMP51	0.400		0.016	0.010	0.004	0.002					0.023	85.0	34.1	
B_MR6_GMP52	0.400		0.003	0.002	0.001	-					0.004	85.0	5.9	
B_MR6_GMP53	20.000										0.010	88.5	0.3	
B_MR6_GMP54	20.000										0.033	87.0	1.0	
B_MR6_GMP55	20.000										0.033	88.2	1.0	
B_MR6_GMP58	0.400		0.005	0.003	0.001	0.001					0.007	85.0	10.3	
B_MR6_GMP59	20.000										0.007	84.9	0.2	
B_MR6_GMP62	0.400		0.012	0.007	0.003	0.002					0.017	85.0	25.2	
B_MR6_GMP63	20.000										0.050	85.3	1.5	
B_MR6_GMP64	0.400		0.023	0.014	0.005	0.003					0.033	85.0	51.0	
B_MR6_GMP65	20.000										0.034	84.4	1.0	
B_MR6_GMP66	20.000										3.898	85.2	116.7	
B_MR6_GMP69	0.400		0.041	0.026	0.009	0.006					0.059	85.0	91.9	
B_MR6_GMP70	20.000										3.815	85.3	115.2	
B_MR6_GMP71	0.400		0.007	0.004	0.002	0.001					0.010	85.0	15.0	
B_MR6_GMP72	20.000										3.723	85.5	113.4	
B_MR6_GMP73	20.000										0.010	84.8	0.3	
B_MR6_GMP76	0.400		0.038	0.024	0.008	0.005					0.054	85.0	85.3	
B_MR6_GMP77	20.000										3.682	85.7	113.2	
B_MR6_GMP78	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.3	
B_MR6_GMP79	20.000										3.596	85.9	111.5	
B_MR6_GMP80	0.400		0.023	0.014	0.005	0.003					0.033	85.0	52.6	
B_MR6_GMP81	20.000										3.532	86.0	110.5	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
B_MR6_GMP82	20.000										3.418	86.3	109.5	
B_MR6_GMT1	0.400		0.038	0.024	0.007	0.005					0.053	85.0	87.9	
B_MR6_GMT2	20.000										3.413	86.4	109.6	
B_MR6_GMT3	20.000										0.055	84.4	1.8	
B_MR6_GMT7	20.000										3.353	86.4	107.8	
B_MR6_GMT8	0.400		0.001	0.001	0.000	-					0.002	85.0	3.1	
B_MR6_GMT9	20.000										0.002	84.9	0.1	
B_MR6_GMT13	20.000										3.345	86.4	107.8	
B_MR6_GMT14	0.400		0.014	0.008	0.003	0.002					0.019	85.0	31.3	
B_MR6_GMT18	0.400		0.014	0.008	0.003	0.002					0.019	85.0	31.4	
B_MR6_GMT19	20.000										3.320	86.4	107.1	
B_MR6_GMT20	0.400		0.002	0.001	0.000	-					0.003	85.0	4.7	
B_MR6_GMT21	20.000										3.295	86.4	106.5	
B_MR6_GMT25	20.000										3.287	86.5	106.4	
B_MR6_GMT26	0.400		0.003	0.002	0.001	-					0.005	85.0	7.8	
B_MR6_GMT27	20.000										0.005	84.9	0.2	
B_MR6_GMT30	20.000										3.277	86.5	106.3	
B_MR6_GMT31	0.400		0.003	0.002	0.001	-					0.005	85.0	7.8	
B_MR6_GMT35	20.000										3.267	86.5	106.2	
B_MR6_GMT36	0.400		0.018	0.011	0.003	0.002					0.026	85.0	42.7	
B_MR6_GMT37	20.000										0.026	84.4	0.9	
B_MR6_GMT38	20.000										0.092	86.8	3.0	
B_MR6_GMT44	0.400		0.004	0.003	0.001	-					0.006	85.0	9.4	
B_MR6_GMT45	0.400		0.018	0.011	0.003	0.002					0.025	85.0	41.8	
B_MR6_GMT47	20.000										0.031	85.1	1.0	
B_MR6_GMT48	20.000										0.006	84.7	0.2	
B_MR6_GMT52	20.000										0.062	86.1	2.0	
B_MR6_GMT53	0.400		0.022	0.014	0.004	0.003					0.031	85.0	52.4	
B_MR6_GMT54	20.000										0.032	84.3	1.0	
B_MR6_GMT55	20.000										0.062	86.6	2.0	
B_MR6_GMT58	0.400		0.013	0.008	0.002	0.002					0.018	85.0	29.9	
B_MR6_GMT59	20.000										0.031	85.8	1.0	
B_MR6_GMT60	0.400		0.009	0.005	0.002	0.001					0.012	85.0	20.3	
B_MR6_GMT61	20.000										0.012	84.9	0.4	
B_MR6_GMT62	0.400		0.003	0.002	0.001	-					0.004	85.0	6.3	
B_MR6_GMT63	20.000										3.144	86.5	102.3	
B_MR6_GMT64	0.400		0.007	0.005	0.001	0.001					0.010	85.0	17.3	
B_MR6_GMT65	20.000										3.135	86.5	102.2	
B_MR6_GMT70	0.400		0.014	0.009	0.003	0.002					0.020	85.0	33.2	
B_MR6_GMT71	0.400		0.012	0.007	0.002	0.001					0.016	85.0	27.2	
B_MR6_GMT72	20.000										3.094	86.5	101.2	
B_MR6_GMT73	20.000										3.120	86.5	101.9	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					Percent
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Loading
B_MR6_GMT74	0.400		0.022	0.013	0.004	0.002					0.030	85.0	51.1	
B_MR6_GMT75	0.400		0.023	0.014	0.004	0.003					0.032	85.0	54.4	
B_MR6_GMT76	20.000										3.037	86.6	99.7	
B_MR6_GMT77	20.000										3.073	86.6	100.7	
B_MR6_GMT80	0.400		0.040	0.025	0.007	0.005					0.056	85.0	94.3	
B_MR6_GMT81	20.000										2.999	86.6	98.6	
B_MR6_GMT82	0.400		0.002	0.001	0.000	-					0.003	85.0	4.7	
B_MR6_GMT83	20.000										2.935	86.7	96.7	
B_MR6_GMT84	20.000										0.003	84.9	0.1	
B_MR6_GMT87	0.400		0.035	0.022	0.006	0.004					0.049	85.0	83.2	
B_MR6_GMT88	20.000										2.925	86.7	96.6	
B_MR6_GMT91	0.400		0.015	0.009	0.003	0.002					0.021	85.0	34.9	
B_MR6_GMT92	20.000										2.868	86.7	95.0	
B_MR6_GMT96	0.400		0.006	0.004	0.001	0.001					0.009	85.0	14.3	
B_MR6_GMT97	20.000										2.840	86.7	94.3	
B_MR6_GMT98	20.000										0.029	86.7	1.0	
B_MR6_GMT99	20.000										0.009	84.8	0.3	
B_MR6_GMT102	0.400		0.015	0.009	0.003	0.002					0.021	85.0	35.2	
B_MR6_GMT103	20.000										0.021	84.5	0.7	
B_MR6_GMT109	0.400		0.002	0.001	0.000	-					0.003	85.0	4.8	
B_MR6_GMT110	0.400		0.023	0.014	0.004	0.003					0.032	85.0	55.0	
B_MR6_GMT111	20.000										2.805	86.7	93.3	
B_MR6_GMT112	20.000										2.766	86.8	92.2	
B_MR6_GMT113	20.000										0.003	84.9	0.1	
B_MR6_GMT116	0.400		0.021	0.013	0.004	0.002					0.029	85.0	50.2	
B_MR6_GMT117	20.000										2.757	86.8	92.2	
B_MR6_GMT123	0.400		0.001	0.000	0.000	-					0.001	85.0	1.6	
B_MR6_GMT124	20.000										0.001	85.0	-	
B_MR6_GMT125	20.000										0.019	87.0	0.6	
B_MR6_GMT126	0.400		0.013	0.008	0.002	0.001					0.018	85.0	31.0	
B_MR6_GMT127	20.000										0.018	84.1	0.6	
B_MR6_GMT128	20.000										2.722	86.8	91.2	
B_MR6_GMT130	20.000										1.827	85.6	62.4	
GH LEMITO	20.000										1.647	86.0	55.2	
GH MARISA	20.000										4.710	84.5	143.5	
GH MARISA1	20.000										1.414	87.9	41.4	
GH TILAMUTA	20.000										2.662	86.6	90.8	
GI MARISA	20.000										17.885	84.9	500.5	
LM1 V UJUNG	20.000												-	
LM3 V UJUNG	20.000										2.421	85.5	78.4	
LM4 V UJUNG	20.000													
LMT1 V UJUNG	20.000												-	

Bus			Directly Connected Load								Total Bus Load			
			Constant kVA		Constant Z		Constant I		Generic					
ID	kV	Rated Amp	MW	Mvar	MW	Mvar	MW	Mvar	MW	Mvar	MVA	% PF	Amp	Percent Loading
LMT2 V UJUNG	20.000												-	
LO1 V UJUNG	20.000										2.421	85.5	78.4	
LO2 V UJUNG	20.000													
MR1 V UJUNG	20.000													
MR6 V UJUNG	20.000										3.430	86.3	109.5	
MR6 V UJUNG2	20.000										2.657	86.8	90.6	

* Indicates operating load of a bus exceeds the bus critical limit (100.0% of the Continuous Ampere rating).
# Indicates operating load of a bus exceeds the bus marginal limit (95.0% of the Continuous Ampere rating).

Branch Loading Summary Report

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
INC LM3	Cable	334.67	55.16	16.48					
INC_MR.6	Cable	334.67	90.83	27.14					
LM.1	Cable	334.67	27.21	8.13					
LM.2	Cable	334.67	41.38	12.37					
LM.3	Cable	334.67	143.80	42.97					
LM.4	Cable	334.67	14.70	4.39					
LM.5	Cable	334.67	143.53	42.89					
LMT.1	Cable	334.67	62.37	18.64					
LMT.2	Cable	334.67	28.94	8.65					
LO_1	Cable	334.67	55.40	16.55					
MR.1	Cable	334.67	60.55	18.09					
MR.3	Cable	303.26	143.25	47.24					
MR.4	Cable	334.67	168.00	50.20					
MR.6	Cable	334.67	129.60	38.73					
GI.MARISA	Transformer				30.000	18.724	62.4	17.885	59.6
G_LM1_GM_50	Transformer				0.100	0.041	41.1	0.041	40.5
*G_LM1_GM_51	Transformer				0.025	0.025	101.8	0.024	97.9
G_LM1_GM_52	Transformer				0.100	0.048	48.2	0.047	47.3
G_LM1_GM_53	Transformer				0.100	0.003	3.0	0.003	3.0
*G_LM1_GM_54	Transformer				0.050	0.051	101.7	0.049	97.8
G_LM1_GM_55	Transformer				0.100	0.033	33.0	0.033	32.6
G_LM1_GM_56	Transformer				0.050	0.026	52.2	0.026	51.2
G_LM1_GM_57	Transformer				0.050	0.025	50.2	0.025	49.2
*G_LM1_GM_58	Transformer				0.025	0.035	139.6	0.033	132.2
G_LM1_GM_59	Transformer				0.050	0.019	38.0	0.019	37.5
G_LM1_GM_60	Transformer				0.050	0.023	46.1	0.023	45.3
G_LM1_GM_61	Transformer				0.050	0.028	56.3	0.028	55.1
G_LM1_GM_62	Transformer				0.050	0.017	34.0	0.017	33.5
G_LM1_GM_63	Transformer				0.050	0.012	23.9	0.012	23.7
G_LM1_GM_64	Transformer				0.050	0.018	36.0	0.018	35.5
G_LM1_GM_65	Transformer				0.025	0.015	60.3	0.015	59.0
G_LM1_GM_66	Transformer				0.160	0.024	14.9	0.024	14.8
G_LM1_GM_67	Transformer				0.050	0.004	7.9	0.004	7.9

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity	Loading		Capability	Loading (input)		Loading (output)	
ID	Type	(Amp)	Amp	%	(MVA)	MVA	%	MVA	%
G_LM1_GM_68	Transformer				0.025	0.009	36.0	0.009	35.5
G_LM1_GM_69	Transformer				0.100	0.029	28.9	0.029	28.6
G_LM1_GM_70	Transformer				0.025	0.023	93.3	0.022	90.0
G_LM1_GM_71	Transformer				0.050	0.026	52.2	0.026	51.1
G_LM1_GM_72	Transformer				0.050	0.030	60.3	0.029	58.9
G_LM1_GM_73	Transformer				0.100	0.033	33.0	0.033	32.6
G_LM1_GM_74	Transformer				0.050	0.021	42.1	0.021	41.5
G_LM1_GM_75	Transformer				0.100	0.017	16.9	0.017	16.8
G_LM1_GM_76	Transformer				0.050	0.013	26.0	0.013	25.7
G_LM1_GM_77	Transformer				0.100	0.056	56.3	0.055	55.1
G_LM1_GM_78	Transformer				0.100	0.005	5.0	0.005	5.0
G_LM1_GM_79	Transformer				0.100	0.005	5.0	0.005	5.0
G_LM1_GM_80	Transformer				0.050	0.034	68.6	0.033	66.8
G_LM1_GM_81	Transformer				0.050	0.034	68.6	0.033	66.8
G_LM1_GM_82	Transformer				0.050	0.009	17.9	0.009	17.8
G_LM1_GM_83	Transformer				0.050	0.025	50.2	0.025	49.2
G_LM1_GM_84	Transformer				0.050	0.034	68.6	0.033	66.8
G_LM1_GM_85	Transformer				0.050	0.034	68.6	0.033	66.8
G_LM1_GM_86	Transformer				0.050	0.014	28.0	0.014	27.7
G_LM1_GM_87	Transformer				0.025	0.010	40.0	0.010	39.4
G_LM1_GM_88	Transformer				0.050	0.034	68.6	0.033	66.8
G_LM1_GM_89	Transformer				0.050	0.007	13.9	0.007	13.9
G_LM3_GMC_155	Transformer				0.025	0.025	99.0	0.024	94.5
G_LM3_GMC_156	Transformer				0.050	0.024	48.7	0.024	47.6
G_LM3_GMC_157	Transformer				0.100	0.024	24.1	0.024	23.9
G_LM3_GMC_158	Transformer				0.025	0.025	98.9	0.024	94.4
*G_LM3_GMC_159	Transformer				0.015	0.025	168.9	0.023	155.7
G_LM3_GMC_160	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_161	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_162	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_163	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_164	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_165	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_166	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_167	Transformer				0.025	0.025	98.9	0.024	94.4

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity (Amp)	Loading Amp		Capability (MVA)	Loading (input)		Loading (output)	
ID	Type			%		MVA	%	MVA	%
G_LM3_GMC_168	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_169	Transformer				0.100	0.024	24.1	0.024	23.8
G_LM3_GMC_170	Transformer				0.100	0.024	24.1	0.024	23.8
G_LM3_GMC_171	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_172	Transformer				0.100	0.024	24.1	0.024	23.8
G_LM3_GMC_173	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_174	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_175	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_176	Transformer				0.050	0.024	48.6	0.024	47.5
G_LM3_GMC_177	Transformer				0.100	0.024	24.1	0.024	23.8
G_LM3_GMC_178	Transformer				0.100	0.024	24.1	0.024	23.8
G_LM3_GMI_106	Transformer				0.050	0.034	67.7	0.033	65.8
G_LM3_GMI_107	Transformer				0.050	0.034	67.7	0.033	65.8
G_LM3_GMI_108	Transformer				0.050	0.034	67.6	0.033	65.7
G_LM3_GMI_109	Transformer				0.050	0.034	67.5	0.033	65.6
G_LM3_GMI_110	Transformer				0.050	0.034	67.5	0.033	65.6
G_LM3_GMI_111	Transformer				0.050	0.034	67.4	0.033	65.5
G_LM3_GMI_112	Transformer				0.025	0.010	39.3	0.010	38.7
G_LM3_GMI_113	Transformer				0.050	0.034	67.3	0.033	65.3
G_LM3_GMI_114	Transformer				0.050	0.034	67.2	0.033	65.3
G_LM3_GMI_115	Transformer				0.050	0.034	67.1	0.033	65.2
G_LM3_GMI_116	Transformer				0.050	0.034	67.1	0.033	65.1
G_LM3_GMI_117	Transformer				0.050	0.034	67.0	0.033	65.1
G_LM3_GMI_118	Transformer				0.025	0.010	39.1	0.010	38.4
G_LM3_GMI_119	Transformer				0.050	0.034	67.0	0.033	65.1
G_LM3_GMK_120	Transformer				0.025	0.019	75.1	0.018	72.6
G_LM3_GMK_121	Transformer				0.050	0.033	66.9	0.032	65.0
G_LM3_GMK_122	Transformer				0.025	0.019	74.9	0.018	72.4
G_LM3_GMK_123	Transformer				0.050	0.024	48.9	0.024	47.8
G_LM3_GMK_124	Transformer				0.100	0.055	54.8	0.053	53.4
G_LM3_GMK_125	Transformer				0.050	0.033	66.8	0.032	64.7
G_LM3_GMK_126	Transformer				0.100	0.055	54.7	0.053	53.4
G_LM3_GMK_127	Transformer				0.050	0.033	66.7	0.032	64.7
G_LM3_GMK_128	Transformer				0.100	0.055	54.7	0.053	53.3
G_LM3_GMK_129	Transformer				0.100	0.055	54.7	0.053	53.3

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_LM3_GMK_130	Transformer				0.050	0.033	66.6	0.032	64.6
G_LM3_GMK_131	Transformer				0.100	0.055	54.6	0.053	53.3
G_LM3_GMK_132	Transformer				0.100	0.055	54.8	0.053	53.4
G_LM3_GMK_133	Transformer				0.025	0.019	74.8	0.018	72.3
G_LM3_GMK_134	Transformer				0.050	0.033	66.8	0.032	64.8
G_LM3_GMK_135	Transformer				0.025	0.019	74.8	0.018	72.3
G_LM3_GMK_136	Transformer				0.100	0.055	54.8	0.053	53.4
G_LM3_GMK_137	Transformer				0.025	0.019	74.8	0.018	72.3
G_LM3_GMK_138	Transformer				0.100	0.055	54.7	0.053	53.4
G_LM3_GMK_139	Transformer				0.100	0.055	54.7	0.053	53.3
G_LM3_GMK_140	Transformer				0.025	0.019	74.7	0.018	72.2
G_LM3_GMK_141	Transformer				0.100	0.055	54.7	0.053	53.3
G_LM3_GMK_142	Transformer				0.025	0.019	74.7	0.018	72.2
G_LM3_GMK_143	Transformer				0.050	0.033	66.7	0.032	64.6
G_LM3_GMK_144	Transformer				0.050	0.033	66.7	0.032	64.6
G_LM3_GMK_145	Transformer				0.025	0.019	74.7	0.018	72.1
G_LM3_GMK_146	Transformer				0.100	0.055	54.6	0.053	53.3
G_LM3_GMK_147	Transformer				0.025	0.019	74.6	0.018	72.0
G_LM3_GMK_148	Transformer				0.100	0.055	54.6	0.053	53.2
G_LM3_GMK_149	Transformer				0.050	0.033	66.5	0.032	64.4
G_LM3_GMK_150	Transformer				0.050	0.033	66.5	0.032	64.4
G_LM3_GMK_151	Transformer				0.050	0.033	66.4	0.032	64.4
G_LM3_GMK_152	Transformer				0.050	0.033	66.4	0.032	64.3
G_LM3_GMK_153	Transformer				0.050	0.033	66.4	0.032	64.3
G_LM3_GMK_154	Transformer				0.100	0.055	54.7	0.053	53.4
G_LM3_GML_179	Transformer				0.100	0.024	24.1	0.024	23.8
G_LM3_GML_180	Transformer				0.100	0.024	24.0	0.024	23.8
G_LM3_GML_181	Transformer				0.050	0.024	48.5	0.024	47.4
G_LM3_GML_182	Transformer				0.050	0.024	48.4	0.024	47.3
G_LM3_GML_183	Transformer				0.050	0.024	48.4	0.024	47.3
G_LM3_GML_184	Transformer				0.100	0.024	24.0	0.024	23.7
G_LM3_GML_185	Transformer				0.100	0.024	24.0	0.024	23.7
G_LM3_GML_186	Transformer				0.025	0.025	98.5	0.023	93.9
G_LM3_GML_187	Transformer				0.050	0.024	48.4	0.024	47.3
G_LM3_GML_188	Transformer				0.050	0.024	48.4	0.024	47.2

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity (Amp)	Loading Amp		Capability (MVA)	Loading (input)		Loading (output)	
ID	Type			%		MVA	%	MVA	%
G_LM3_GML_189	Transformer				0.050	0.024	48.4	0.024	47.2
G_LM3_GML_190	Transformer				0.050	0.024	48.3	0.024	47.2
G_LM3_GML_191	Transformer				0.050	0.024	48.3	0.024	47.2
G_LM3_GML_192	Transformer				0.050	0.024	48.3	0.024	47.2
G_LM3_GML_193	Transformer				0.050	0.024	48.3	0.024	47.1
G_LM3_GML_194	Transformer				0.025	0.025	98.3	0.023	93.5
G_LM3_GML_195	Transformer				0.100	0.024	23.9	0.024	23.7
G_LM3_GML_196	Transformer				0.160	0.024	14.9	0.024	14.8
G_LM3_GML_197	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GML_198	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GML_199	Transformer				0.050	0.024	48.2	0.024	47.1
G_LM3_GML_200	Transformer				0.050	0.024	48.2	0.024	47.1
G_LM3_GML_201	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GML_202	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GML_203	Transformer				0.050	0.024	48.2	0.024	47.0
G_LM3_GML_204	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GML_205	Transformer				0.100	0.024	23.9	0.024	23.6
G_LM3_GML_206	Transformer				0.025	0.025	98.0	0.023	93.2
G_LM3_GML_207	Transformer				0.050	0.024	48.1	0.023	46.9
G_LM3_GML_208	Transformer				0.025	0.024	98.0	0.023	93.1
G_LM3_GML_209	Transformer				0.050	0.024	48.1	0.023	46.9
G_LM3_GML_210	Transformer				0.100	0.024	23.8	0.024	23.5
G_LM3_GML_211	Transformer				0.100	0.024	23.8	0.024	23.5
G_LM3_GML_212	Transformer				0.100	0.024	23.8	0.024	23.5
G_LM3_GML_213	Transformer				0.050	0.024	48.1	0.023	46.9
G_LM3_GML_214	Transformer				0.050	0.024	48.0	0.023	46.9
G_LM3_GML_215	Transformer				0.050	0.024	48.0	0.023	46.9
G_LM3_GML_216	Transformer				0.050	0.024	48.0	0.023	46.9
G_LM3_GML_217	Transformer				0.050	0.024	48.0	0.023	46.9
G_LM3_GML_218	Transformer				0.050	0.024	48.0	0.023	46.9
G_LM3_GML_219	Transformer				0.050	0.024	48.1	0.023	46.9
G_LM3_GML_220	Transformer				0.050	0.024	48.1	0.023	46.9
G_LM3_GML_221	Transformer				0.025	0.024	97.9	0.023	93.1
G_LM3_GML_222	Transformer				0.025	0.024	97.9	0.023	93.1
G_LM3_GML_223	Transformer				0.100	0.024	23.8	0.024	23.5

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity	Loading		Capability	Loading (input)		Loading (output)	
ID	Type	(Amp)	Amp	%	(MVA)	MVA	%	MVA	%
G_LM3_GML_224	Transformer				0.050	0.024	48.0	0.023	46.9
G_LM3_GML_225	Transformer				0.050	0.024	48.0	0.023	46.9
G_LM3_GML_226	Transformer				0.025	0.024	97.9	0.023	93.0
G_LM3_GML_227	Transformer				0.100	0.024	23.8	0.024	23.5
G_LM3_GML_228	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_229	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_230	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_231	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_232	Transformer				0.050	0.024	48.0	0.023	46.8
*G_LM3_GML_233	Transformer				0.015	0.025	167.7	0.023	153.3
*G_LM3_GML_234	Transformer				0.015	0.025	167.7	0.023	153.3
G_LM3_GML_235	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_236	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_237	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_238	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_239	Transformer				0.025	0.024	97.8	0.023	92.9
G_LM3_GML_240	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_241	Transformer				0.050	0.024	48.0	0.023	46.8
*G_LM3_GML_242	Transformer				0.015	0.025	167.7	0.023	153.2
G_LM3_GML_243	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_244	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_245	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_246	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_247	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_248	Transformer				0.025	0.024	97.8	0.023	92.9
G_LM3_GML_249	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_250	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_251	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_252	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_253	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_254	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_255	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_256	Transformer				0.025	0.019	77.6	0.019	74.5
G_LM3_GML_257	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_258	Transformer				0.100	0.024	23.8	0.023	23.5

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity (Amp)	Loading Amp		Capability (MVA)	Loading (input)		Loading (output)	
ID	Type			%		MVA	%	MVA	%
G_LM3_GML_259	Transformer				0.025	0.024	97.8	0.023	92.9
G_LM3_GML_260	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_261	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_262	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_263	Transformer				0.100	0.024	23.8	0.023	23.5
G_LM3_GML_264	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_265	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_266	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM3_GML_267	Transformer				0.050	0.024	48.0	0.023	46.8
G_LM4_GM_90	Transformer				0.160	0.007	4.4	0.007	4.3
G_LM4_GM_91	Transformer				0.100	0.056	56.4	0.055	55.2
*G_LM4_GM_92	Transformer				0.050	0.051	101.8	0.049	97.9
G_LM4_GM_93	Transformer				0.050	0.034	68.7	0.033	66.9
G_LM4_GM_94	Transformer				0.100	0.003	3.0	0.003	3.0
G_LM4_GM_95	Transformer				0.100	0.056	56.4	0.055	55.2
G_LM4_GM_96	Transformer				0.050	0.043	85.2	0.041	82.5
G_LM4_GM_97	Transformer				0.100	0.013	13.0	0.013	12.9
G_LM4_GM_98	Transformer				0.100	0.014	14.0	0.014	13.9
G_LM4_GM_99	Transformer				0.050	0.005	10.0	0.005	9.9
G_LM4_GM_100	Transformer				0.050	0.034	68.7	0.033	66.9
G_LM4_GM_101	Transformer				0.160	0.015	9.3	0.015	9.3
G_LM4_GM_102	Transformer				0.100	0.056	56.4	0.055	55.2
G_LM4_GM_103	Transformer				0.050	0.034	68.7	0.033	66.9
G_LM4_GM_104	Transformer				0.050	0.034	68.7	0.033	66.9
G_LM4_GM_105	Transformer				0.100	0.056	56.4	0.055	55.2
G_LMT1_GMT031	Transformer				0.025	0.005	18.9	0.005	18.7
G_LMT1_GMT032	Transformer				0.025	0.017	69.4	0.017	66.9
*G_LMT1_GMT033	Transformer				0.050	0.065	130.5	0.061	121.5
*G_LMT1_GMT034	Transformer				0.050	0.078	155.9	0.072	143.0
G_LMT1_GMT035	Transformer				0.050	0.033	65.5	0.032	63.2
G_LMT1_GMT036	Transformer				0.100	0.047	46.8	0.046	45.7
G_LMT1_GMT038	Transformer				0.100	0.064	64.5	0.062	62.3
G_LMT1_GMT039	Transformer				0.050	0.042	83.4	0.040	79.7
G_LMT1_GMT040	Transformer				0.100	0.060	59.6	0.058	57.7
G_LMT1_GMT041	Transformer				0.100	0.066	66.5	0.064	64.2

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity	Loading		Capability	Loading (input)		Loading (output)	
ID	Type	(Amp)	Amp	%	(MVA)	MVA	%	MVA	%
G_LMT1_GMT042	Transformer				0.100	0.053	52.7	0.051	51.3
G_LMT1_GMT043	Transformer				0.050	0.035	69.5	0.033	67.0
G_LMT1_GMT044	Transformer				0.160	0.086	53.9	0.084	52.4
G_LMT1_GMT045	Transformer				0.100	0.040	40.1	0.039	39.2
*G_LMT1_GMT046	Transformer				0.050	0.053	105.7	0.050	99.8
G_LMT1_GMT047	Transformer				0.200	0.019	9.4	0.019	9.4
G_LMT1_GMT048	Transformer				0.100	0.035	35.2	0.035	34.6
G_LMT1_GMT049	Transformer				0.100	0.018	18.0	0.018	17.8
G_LMT1_GMT050	Transformer				0.100	0.069	69.4	0.067	66.9
G_LMT1_GMT051	Transformer				0.100	0.037	37.1	0.036	36.4
G_LMT1_GMT052	Transformer				0.050	0.030	59.5	0.029	57.7
G_LMT1_GMT053	Transformer				0.050	0.012	24.6	0.012	24.3
G_LMT1_GMT054	Transformer				0.050	0.019	38.1	0.019	37.3
G_LMT1_GMT055	Transformer				0.050	0.006	11.3	0.006	11.2
G_LMT1_GMT056	Transformer				0.100	0.036	36.2	0.035	35.5
G_LMT1_GMT057	Transformer				0.025	0.017	69.4	0.017	66.9
G_LMT1_GMT058	Transformer				0.160	0.055	34.5	0.054	33.8
G_LMT1_GMT059	Transformer				0.025	0.005	18.9	0.005	18.7
G_LMT1_GMT060	Transformer				0.050	0.017	34.2	0.017	33.6
G_LMT1_GMT061	Transformer				0.100	0.079	79.5	0.076	76.2
G_LMT1_GMT062	Transformer				0.050	0.019	38.2	0.019	37.4
G_LMT1_GMT063	Transformer				0.100	0.069	68.6	0.066	66.1
G_LMT1_GMT064	Transformer				0.250	0.006	2.3	0.006	2.3
G_LMT1_GMT065	Transformer				0.050	0.029	57.7	0.028	56.0
G_LMT1_GMT066	Transformer				0.050	0.015	30.5	0.015	30.0
G_LMT1_GMT067	Transformer				0.100	0.085	84.6	0.081	81.0
G_LMT1_GMT068	Transformer				0.050	0.035	69.6	0.034	67.2
G_LMT1_GMT069	Transformer				0.050	0.009	19.0	0.009	18.8
G_LMT1_GMT070	Transformer				0.100	0.021	20.9	0.021	20.7
G_LMT1_GMT071	Transformer				0.050	0.004	7.6	0.004	7.5
G_LMT1_GMT072	Transformer				0.050	0.031	61.7	0.030	59.7
G_LMT1_GMT073	Transformer				0.050	0.003	5.7	0.003	5.6
G_LMT1_GMT074	Transformer				0.050	0.028	55.8	0.027	54.2
G_LMT1_GMT075	Transformer				0.100	0.033	33.4	0.033	32.8
G_LMT1_GMT076	Transformer				0.100	0.054	53.8	0.052	52.3

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity (Amp)	Loading Amp		Capability (MVA)	Loading (input)		Loading (output)	
ID	Type			%		MVA	%	MVA	%
G_LMT1_GMT077	Transformer				0.100	0.010	10.4	0.010	10.3
G_LMT1_GMT079	Transformer				0.050	0.009	17.1	0.008	16.9
G_LMT1_GMT080	Transformer				0.100	0.045	45.0	0.044	44.0
G_LMT1_GMT081	Transformer				0.050	0.030	59.7	0.029	57.9
G_LMT1_GMT123	Transformer				0.100	0.054	53.7	0.052	52.2
G_LMT1_GMT132	Transformer				0.100	0.054	53.8	0.052	52.3
G_LMT2_GMT081	Transformer				0.050	0.030	59.7	0.029	57.9
G_LMT2_GMT082	Transformer				0.100	0.054	53.8	0.052	52.3
G_LMT2_GMT083	Transformer				0.025	0.005	19.0	0.005	18.8
G_LMT2_GMT084	Transformer				0.050	0.038	75.5	0.036	72.6
G_LMT2_GMT085	Transformer				0.050	0.033	65.6	0.032	63.3
G_LMT2_GMT086	Transformer				0.100	0.054	53.7	0.052	52.2
G_LMT2_GMT087	Transformer				0.050	0.042	83.5	0.040	79.8
G_LMT2_GMT088	Transformer				0.050	0.011	22.8	0.011	22.5
G_LMT2_GMT089	Transformer				0.050	0.029	57.6	0.028	55.9
G_LMT2_GMT090	Transformer				0.025	0.004	15.1	0.004	15.0
G_LMT2_GMT091	Transformer				0.025	0.019	77.4	0.019	74.2
G_LMT2_GMT092	Transformer				0.050	0.016	32.3	0.016	31.8
G_LMT2_GMT093	Transformer				0.050	0.031	61.5	0.030	59.5
G_LMT2_GMT094	Transformer				0.025	0.017	69.4	0.017	66.8
G_LMT2_GMT095	Transformer				0.050	0.006	11.3	0.006	11.2
G_LMT2_GMT096	Transformer				0.050	0.006	11.3	0.006	11.2
G_LMT2_GMT097	Transformer				0.025	0.003	11.3	0.003	11.2
G_LMT2_GMT098	Transformer				0.025	0.005	18.9	0.005	18.7
G_LMT2_GMT099	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT100	Transformer				0.100	0.019	18.9	0.019	18.7
G_LMT2_GMT101	Transformer				0.050	0.033	65.4	0.032	63.1
G_LMT2_GMT102	Transformer				0.050	0.008	17.0	0.008	16.8
G_LMT2_GMT103	Transformer				0.050	0.003	5.6	0.003	5.6
G_LMT2_GMT104	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT105	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT106	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT107	Transformer				0.100	0.008	7.5	0.007	7.5
G_LMT2_GMT108	Transformer				0.050	0.014	28.4	0.014	28.0
G_LMT2_GMT109	Transformer				0.050	0.015	30.3	0.015	29.8

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity (Amp)	Loading Amp		Capability (MVA)	Loading (input)		Loading (output)	
ID	Type			%		MVA	%	MVA	%
G_LMT2_GMT110	Transformer				0.050	0.009	18.9	0.009	18.7
G_LMT2_GMT111	Transformer				0.025	0.003	11.3	0.003	11.2
G_LMT2_GMT112	Transformer				0.050	0.009	18.9	0.009	18.7
G_LMT2_GMT113	Transformer				0.100	0.015	15.1	0.015	14.9
G_LMT2_GMT114	Transformer				0.050	0.002	3.7	0.002	3.7
G_LMT2_GMT116	Transformer				0.050	0.010	20.8	0.010	20.5
G_LMT2_GMT117	Transformer				0.050	0.033	65.3	0.032	63.0
G_LMT2_GMT118	Transformer				0.050	0.001	1.9	0.001	1.9
G_LMT2_GMT119	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT120	Transformer				0.100	0.037	37.0	0.036	36.3
G_LMT2_GMT121	Transformer				0.050	0.027	53.5	0.026	52.0
G_LMT2_GMT122	Transformer				0.050	0.029	57.4	0.028	55.6
G_LMT2_GMT123	Transformer				0.050	0.030	59.4	0.029	57.5
G_LMT2_GMT124	Transformer				0.050	0.027	53.5	0.026	52.0
G_LMT2_GMT125	Transformer				0.050	0.003	5.6	0.003	5.6
G_LMT2_GMT126	Transformer				0.050	0.004	7.5	0.004	7.5
G_LMT2_GMT127	Transformer				0.100	0.029	29.3	0.029	28.9
G_LMT2_GMT128	Transformer				0.025	0.002	7.5	0.002	7.5
G_LMT2_GMT129	Transformer				0.050	0.008	15.1	0.007	14.9
G_LMT2_GMT130	Transformer				0.050	0.002	3.7	0.002	3.7
G_LMT2_GMT131	Transformer				0.050	0.033	65.3	0.031	63.0
G_LMT2_GMT135	Transformer				0.050	0.033	65.4	0.032	63.1
G_MR1_GMP_1	Transformer				0.050	0.036	71.8	0.035	70.1
G_MR1_GMP_2_	Transformer				0.025	0.021	82.2	0.020	79.8
G_MR1_GMP_3	Transformer				0.050	0.036	71.7	0.035	69.9
G_MR1_GMP_4	Transformer				0.050	0.041	82.0	0.040	79.6
G_MR1_GMP_5	Transformer				0.100	0.082	81.9	0.080	79.5
G_MR1_GMP_6	Transformer				0.200	0.153	76.6	0.149	74.5
G_MR1_GMP_7	Transformer				0.050	0.041	81.7	0.040	79.3
G_MR1_GMP_8	Transformer				0.050	0.041	81.7	0.040	79.3
G_MR1_GMP_9	Transformer				0.050	0.041	81.6	0.040	79.2
G_MR1_GMP_10	Transformer				0.100	0.082	81.5	0.079	79.1
G_MR1_GMP_11	Transformer				0.050	0.041	81.4	0.040	79.0
G_MR1_GMP_12	Transformer				0.050	0.041	81.4	0.039	78.9
G_MR1_GMP_13	Transformer				0.100	0.081	81.3	0.079	78.9

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_MR1_GMP_14	Transformer				0.100	0.081	81.3	0.079	78.9
*G_MR1_GMP_15	Transformer				0.025	0.026	102.1	0.025	98.3
G_MR1_GMP_16	Transformer				0.100	0.081	81.3	0.079	78.8
G_MR1_GMP_17	Transformer				0.050	0.041	81.3	0.039	78.8
G_MR1_GMP_18	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_19	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_20_	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_21	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_22	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_23	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_24	Transformer				0.100	0.081	81.2	0.079	78.8
G_MR1_GMP_25	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_26	Transformer				0.050	0.041	81.2	0.039	78.8
G_MR1_GMP_27	Transformer				0.100	0.081	81.3	0.079	78.9
G_MR1_GMP_28	Transformer				0.100	0.081	81.3	0.079	78.9
G_MR1_GMP_29	Transformer				0.100	0.081	81.3	0.079	78.9
G_MR1_GMP_30	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_31	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_32	Transformer				0.160	0.122	76.2	0.118	74.0
G_MR1_GMP_33_	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_34	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_35	Transformer				0.050	0.041	81.3	0.039	78.9
G_MR1_GMP_36	Transformer				0.050	0.041	81.3	0.039	78.8
G_MR1_GMP_37	Transformer				0.025	0.020	81.3	0.020	78.8
G_MR1_GMP_38	Transformer				0.050	0.041	81.3	0.039	78.8
G_MR1_GMP_39	Transformer				0.100	0.081	81.3	0.079	78.8
G_MR4_GM02	Transformer				3.000	2.155	71.8	2.101	70.0
G_MR4_GM03	Transformer				0.100	0.046	45.6	0.045	44.9
G_MR4_GM04	Transformer				0.050	0.014	28.3	0.014	28.0
G_MR4_GM05	Transformer				0.100	0.015	14.9	0.015	14.6
G_MR4_GM06	Transformer				0.050	0.021	41.4	0.020	40.2
G_MR4_GM07	Transformer				0.050	0.032	63.8	0.030	60.9
G_MR4_GM08	Transformer				0.400	0.001	0.3	0.001	0.3
G_MR4_GM09	Transformer				0.100	0.095	95.3	0.089	88.9
G_MR4_GM10	Transformer				0.100	0.019	18.9	0.019	18.8

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_MR4_GM11	Transformer				0.100	0.073	73.0	0.065	65.3
G_MR4_GM12	Transformer				0.050	0.022	44.0	0.021	42.6
G_MR4_GM13	Transformer				0.200	0.124	61.9	0.112	56.2
G_MR4_GM14	Transformer				0.160	0.088	55.0	0.082	51.4
G_MR4_GM15	Transformer				0.100	0.071	70.6	0.063	63.1
G_MR4_GM16	Transformer				0.025	0.005	21.1	0.005	21.1
G_MR4_GM17	Transformer				0.100	0.042	41.7	0.040	40.4
G_MR4_GM18	Transformer				0.100	0.021	20.5	0.020	20.2
G_MR4_GM19	Transformer				0.160	0.116	72.2	0.111	69.1
G_MR4_GM20	Transformer				0.160	0.077	48.3	0.073	45.5
G_MR4_GM21	Transformer				0.100	0.060	59.6	0.057	56.9
G_MR4_GM22	Transformer				0.050	0.025	49.8	0.025	49.4
G_MR4_GM23	Transformer				0.100	0.075	75.4	0.067	66.9
G_MR4_GM24	Transformer				0.100	0.063	62.5	0.060	59.6
G_MR4_GM25	Transformer				0.100	0.046	45.6	0.045	44.8
G_MR4_GM26	Transformer				0.100	0.035	34.8	0.034	33.9
G_MR4_GM27	Transformer				0.160	0.091	56.9	0.085	53.1
G_MR4_GM28	Transformer				0.100	0.025	24.7	0.024	24.3
G_MR4_GM29	Transformer				0.100	0.038	38.4	0.037	37.4
G_MR4_GM30	Transformer				0.160	0.081	50.4	0.076	47.4
G_MR4_GM31	Transformer				0.100	0.034	33.9	0.033	33.5
G_MR4_GM32	Transformer				0.025	0.005	20.5	0.005	20.3
G_MR4_GM33	Transformer				0.025	0.019	77.7	0.019	77.2
G_MR4_GM34	Transformer				0.100	0.083	82.7	0.080	80.2
G_MR4_GM35	Transformer				0.160	0.101	63.1	0.093	58.4
G_MR4_GM36	Transformer				0.100	0.006	6.4	0.006	6.3
G_MR4_GM37	Transformer				0.050	0.027	54.4	0.027	53.9
G_MR4_GM38	Transformer				0.100	0.065	64.7	0.062	61.6
G_MR4_GM39	Transformer				0.100	0.060	59.7	0.057	57.1
G_MR4_GM40	Transformer				0.100	0.065	64.9	0.063	63.4
G_MR4_GM41	Transformer				0.100	0.071	71.2	0.069	69.4
G_MR4_GM42	Transformer				0.100	0.021	20.6	0.020	20.5
G_MR4_GM43	Transformer				0.050	0.016	32.1	0.016	31.7
*G_MR4_GM44	Transformer				0.050	0.084	168.5	0.082	163.3
G_MR4_GM45	Transformer				0.100	0.022	21.8	0.021	21.4

CKT / Branch		Busway / Cable & Reactor			Transformer				
		Ampacity	Loading		Capability	Loading (input)		Loading (output)	
ID	Type	(Amp)	Amp	%	(MVA)	MVA	%	MVA	%
*G_MR4_GM46	Transformer				0.050	0.052	105.0	0.051	103.0
G_MR4_GM47	Transformer				0.100	0.061	61.5	0.059	58.7
G_MR4_GM48	Transformer				0.100	0.044	44.4	0.044	43.6
G_MR4_GM49	Transformer				0.100	0.029	28.9	0.029	28.6
G_MR4_GMP01	Transformer				0.050	0.038	75.2	0.037	73.2
G_MR6_GMP040	Transformer				0.025	0.019	77.9	0.019	75.8
G_MR6_GMP041	Transformer				0.050	0.035	69.3	0.034	67.6
G_MR6_GMP042	Transformer				0.050	0.025	50.6	0.025	49.7
G_MR6_GMP043	Transformer				0.100	0.015	15.0	0.015	14.9
G_MR6_GMP044	Transformer				0.100	0.049	49.2	0.048	48.3
G_MR6_GMP045	Transformer				0.100	0.056	56.2	0.055	54.9
G_MR6_GMP046	Transformer				0.050	0.029	58.2	0.028	56.9
G_MR6_GMP047	Transformer				0.050	0.031	62.3	0.030	60.8
G_MR6_GMP048	Transformer				0.200	0.144	72.0	0.140	70.0
G_MR6_GMP049	Transformer				0.050	0.012	23.9	0.012	23.7
G_MR6_GMP050	Transformer				0.050	0.007	13.9	0.007	13.8
G_MR6_GMP051	Transformer				0.050	0.023	46.0	0.023	45.2
G_MR6_GMP052	Transformer				0.050	0.004	7.9	0.004	7.9
G_MR6_GMP053	Transformer				0.050	0.007	13.9	0.007	13.8
G_MR6_GMP054	Transformer				0.100	0.017	16.8	0.017	16.7
G_MR6_GMP055	Transformer				0.050	0.034	68.2	0.033	66.4
G_MR6_GMP056	Transformer				0.100	0.061	60.9	0.059	59.4
G_MR6_GMP057	Transformer				0.050	0.010	19.7	0.010	19.5
G_MR6_GMP058	Transformer				0.100	0.056	55.5	0.054	54.2
G_MR6_GMP059	Transformer				0.050	0.034	67.4	0.033	65.5
G_MR6_GMP060	Transformer				0.050	0.034	67.3	0.033	65.3
G_MR6_GMP061	Transformer				0.100	0.055	54.8	0.053	53.4
G_MR6_GMT001	Transformer				0.025	0.002	7.7	0.002	7.7
G_MR6_GMT002	Transformer				0.050	0.019	38.9	0.019	38.2
G_MR6_GMT003	Transformer				0.050	0.019	38.9	0.019	38.2
G_MR6_GMT004	Transformer				0.100	0.003	2.9	0.003	2.9
G_MR6_GMT005	Transformer				0.100	0.005	4.8	0.005	4.8
G_MR6_GMT006	Transformer				0.025	0.005	19.3	0.005	19.1
G_MR6_GMT007	Transformer				0.050	0.026	52.6	0.026	51.3
*G_MR6_GMT008	Transformer				0.025	0.026	103.0	0.025	98.1

CKT / Branch		Busway / Cable & Reactor			Transformer				
						Loading (input)		Loading (output)	
ID	Type	Ampacity (Amp)	Loading Amp	%	Capability (MVA)	MVA	%	MVA	%
G_MR6_GMT009	Transformer				0.025	0.006	23.2	0.006	22.9
G_MR6_GMT010	Transformer				0.050	0.032	64.5	0.031	62.6
G_MR6_GMT011	Transformer				0.050	0.018	36.8	0.018	36.2
G_MR6_GMT012	Transformer				0.100	0.012	12.5	0.012	12.4
G_MR6_GMT013	Transformer				0.025	0.004	15.4	0.004	15.3
G_MR6_GMT015	Transformer				0.050	0.011	21.2	0.010	21.0
G_MR6_GMT016	Transformer				0.050	0.020	40.7	0.020	39.9
G_MR6_GMT017	Transformer				0.025	0.017	66.4	0.016	64.3
G_MR6_GMT018	Transformer				0.050	0.031	62.4	0.030	60.6
G_MR6_GMT020	Transformer				0.100	0.057	57.4	0.056	55.8
G_MR6_GMT021	Transformer				0.050	0.003	5.7	0.003	5.7
G_MR6_GMT022	Transformer				0.100	0.050	50.4	0.049	49.2
G_MR6_GMT023	Transformer				0.100	0.021	21.1	0.021	20.9
G_MR6_GMT024	Transformer				0.050	0.009	17.2	0.009	17.1
G_MR6_GMT025	Transformer				0.050	0.021	42.5	0.021	41.6
G_MR6_GMT026	Transformer				0.050	0.033	66.1	0.032	64.0
G_MR6_GMT027	Transformer				0.050	0.003	5.7	0.003	5.7
G_MR6_GMT028	Transformer				0.050	0.030	60.1	0.029	58.3
G_MR6_GMT029	Transformer				0.025	0.018	74.0	0.018	71.3
G_MR6_GMT030	Transformer				0.025	0.001	3.8	0.001	3.8
G_MR6_GMT134	Transformer				0.050	0.033	66.4	0.032	64.3

* Indicates a branch with operating load exceeding the branch capability.

Branch Losses Summary Report

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM1_GM_50	-0.034	-0.021	0.035	0.022	0.4	0.6	97.0	98.5	1.52
G_LM1_GM_51	-0.021	-0.013	0.021	0.014	0.6	0.9	94.6	98.4	3.78
G_LM1_GM_52	-0.040	-0.025	0.041	0.026	0.5	0.8	96.5	98.3	1.79
G_LM1_GM_53	-0.003	-0.002	0.003	0.002	0.0	0.0	98.1	98.2	0.11
G_LM1_GM_54	-0.042	-0.026	0.043	0.028	1.2	1.8	94.4	98.2	3.79
G_LM1_GM_55	-0.028	-0.017	0.028	0.018	0.3	0.4	96.9	98.1	1.23
G_LM1_GM_56	-0.022	-0.013	0.022	0.014	0.3	0.5	96.1	98.1	1.94
G_LM1_GM_57	-0.021	-0.013	0.021	0.013	0.3	0.4	96.2	98.0	1.87
G_LM1_GM_58	-0.028	-0.017	0.029	0.019	1.1	1.7	92.8	98.0	5.21
G_LM1_GM_59	0.016	0.010	-0.016	-0.010	0.2	0.3	98.0	96.5	1.42
G_LM1_GM_60	0.020	0.012	-0.019	-0.012	0.2	0.4	97.9	96.2	1.72
G_LM1_GM_61	0.024	0.015	-0.023	-0.015	0.4	0.6	97.9	95.8	2.10
G_LM1_GM_62	0.014	0.009	-0.014	-0.009	0.1	0.2	97.8	96.6	1.27
G_LM1_GM_63	0.010	0.006	-0.010	-0.006	0.1	0.1	97.8	96.9	0.89
G_LM1_GM_64	0.015	0.010	-0.015	-0.009	0.2	0.2	97.8	96.4	1.34
G_LM1_GM_65	0.013	0.008	-0.013	-0.008	0.2	0.3	97.8	95.5	2.25
G_LM1_GM_66	0.020	0.013	-0.020	-0.013	0.1	0.1	97.8	97.2	0.56
G_LM1_GM_67	0.003	0.002	-0.003	-0.002	0.0	0.0	97.8	97.5	0.30
G_LM1_GM_68	-0.008	-0.005	0.008	0.005	0.1	0.1	96.4	97.8	1.34
G_LM1_GM_69	0.025	0.015	-0.024	-0.015	0.2	0.3	97.8	96.7	1.08
G_LM1_GM_70	-0.019	-0.012	0.020	0.013	0.5	0.8	94.3	97.8	3.49
G_LM1_GM_71	-0.022	-0.013	0.022	0.014	0.3	0.5	95.8	97.7	1.95
G_LM1_GM_72	-0.025	-0.016	0.025	0.016	0.4	0.6	95.5	97.7	2.25
G_LM1_GM_73	0.028	0.018	-0.028	-0.017	0.3	0.4	98.3	97.1	1.22
G_LM1_GM_74	0.018	0.011	-0.018	-0.011	0.2	0.3	98.3	96.7	1.56
G_LM1_GM_75	0.014	0.009	-0.014	-0.009	0.1	0.1	98.2	97.6	0.63
G_LM1_GM_76	0.011	0.007	-0.011	-0.007	0.1	0.1	98.2	97.2	0.96
G_LM1_GM_77	0.048	0.030	-0.047	-0.029	0.7	1.1	98.1	96.1	2.09
G_LM1_GM_78	0.004	0.003	-0.004	-0.003	0.0	0.0	98.1	97.9	0.18
G_LM1_GM_79	0.004	0.003	-0.004	-0.003	0.0	0.0	98.1	97.9	0.18
G_LM1_GM_80	0.029	0.018	-0.028	-0.018	0.5	0.8	98.0	95.5	2.55
G_LM1_GM_81	0.029	0.018	-0.028	-0.018	0.5	0.8	98.0	95.5	2.55
G_LM1_GM_82	0.008	0.005	-0.008	-0.005	0.0	0.1	98.0	97.3	0.67
G_LM1_GM_83	0.021	0.013	-0.021	-0.013	0.3	0.4	98.0	96.1	1.87

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM1_GM_84	0.029	0.018	-0.028	-0.018	0.5	0.8	98.0	95.4	2.55
G_LM1_GM_85	0.029	0.018	-0.028	-0.018	0.5	0.8	97.9	95.4	2.55
G_LM1_GM_86	0.012	0.007	-0.012	-0.007	0.1	0.1	97.9	96.9	1.04
G_LM1_GM_87	0.008	0.005	-0.008	-0.005	0.1	0.1	97.9	96.4	1.49
G_LM1_GM_88	-0.028	-0.018	0.029	0.018	0.5	0.8	95.4	97.9	2.55
G_LM1_GM_89	-0.006	-0.004	0.006	0.004	0.0	0.0	97.4	97.9	0.52
G_LM3_GMC_155	0.021	0.013	-0.020	-0.012	0.7	1.0	89.1	85.1	4.06
G_LM3_GMC_156	0.021	0.013	-0.020	-0.013	0.3	0.5	89.1	87.1	1.99
G_LM3_GMC_157	0.020	0.013	-0.020	-0.013	0.2	0.2	89.0	88.0	0.99
G_LM3_GMC_158	0.021	0.013	-0.020	-0.012	0.7	1.0	88.9	84.8	4.07
G_LM3_GMC_159	0.021	0.014	-0.020	-0.012	1.2	1.8	88.8	81.9	6.98
G_LM3_GMC_160	0.021	0.013	-0.020	-0.013	0.3	0.5	88.8	86.8	2.00
G_LM3_GMC_161	0.021	0.013	-0.020	-0.013	0.3	0.5	88.8	86.8	2.00
G_LM3_GMC_162	0.021	0.013	-0.020	-0.013	0.3	0.5	88.8	86.8	2.00
G_LM3_GMC_163	0.021	0.013	-0.020	-0.013	0.3	0.5	88.8	86.8	2.00
G_LM3_GMC_164	0.021	0.013	-0.020	-0.013	0.3	0.5	88.8	86.8	2.00
G_LM3_GMC_165	0.021	0.013	-0.020	-0.013	0.3	0.5	88.9	86.9	2.00
G_LM3_GMC_166	0.021	0.013	-0.020	-0.013	0.3	0.5	88.8	86.8	2.00
G_LM3_GMC_167	0.021	0.013	-0.020	-0.012	0.7	1.0	88.8	84.7	4.07
G_LM3_GMC_168	0.021	0.013	-0.020	-0.013	0.3	0.5	88.8	86.8	2.00
G_LM3_GMC_169	0.020	0.013	-0.020	-0.013	0.2	0.2	88.7	87.7	0.99
G_LM3_GMC_170	0.020	0.013	-0.020	-0.013	0.2	0.2	88.7	87.7	0.99
G_LM3_GMC_171	0.021	0.013	-0.020	-0.013	0.3	0.5	88.7	86.7	2.00
G_LM3_GMC_172	0.020	0.013	-0.020	-0.013	0.2	0.2	88.7	87.7	0.99
G_LM3_GMC_173	0.021	0.013	-0.020	-0.013	0.3	0.5	88.6	86.6	2.00
G_LM3_GMC_174	0.021	0.013	-0.020	-0.013	0.3	0.5	88.6	86.6	2.00
G_LM3_GMC_175	0.021	0.013	-0.020	-0.013	0.3	0.5	88.6	86.6	2.00
G_LM3_GMC_176	0.021	0.013	-0.020	-0.013	0.3	0.5	88.6	86.6	2.00
G_LM3_GMC_177	0.020	0.013	-0.020	-0.013	0.2	0.2	88.6	87.6	0.99
G_LM3_GMC_178	0.020	0.013	-0.020	-0.013	0.2	0.2	88.6	87.6	0.99
G_LM3_GMI_106	0.029	0.018	-0.028	-0.017	0.6	0.9	94.4	91.7	2.62
G_LM3_GMI_107	0.029	0.018	-0.028	-0.017	0.6	0.9	94.1	91.5	2.62
G_LM3_GMI_108	0.029	0.018	-0.028	-0.017	0.6	0.9	93.8	91.2	2.63
G_LM3_GMI_109	0.028	0.018	-0.028	-0.017	0.6	0.9	93.6	90.9	2.64
G_LM3_GMI_110	0.028	0.018	-0.028	-0.017	0.6	0.9	93.3	90.7	2.64
G_LM3_GMI_111	0.028	0.018	-0.028	-0.017	0.6	0.9	93.0	90.4	2.65
G_LM3_GMI_112	0.008	0.005	-0.008	-0.005	0.1	0.1	92.8	91.2	1.54

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GMI_113	0.028	0.018	-0.028	-0.017	0.6	0.9	92.3	89.6	2.66
G_LM3_GMI_114	-0.028	-0.017	0.028	0.018	0.6	0.9	89.3	92.0	2.67
G_LM3_GMI_115	-0.028	-0.017	0.028	0.018	0.6	0.9	89.1	91.8	2.67
G_LM3_GMI_116	-0.028	-0.017	0.028	0.018	0.6	0.9	88.8	91.5	2.68
G_LM3_GMI_117	-0.028	-0.017	0.028	0.018	0.6	0.9	88.6	91.3	2.68
G_LM3_GMI_118	-0.008	-0.005	0.008	0.005	0.1	0.2	89.7	91.3	1.56
G_LM3_GMI_119	-0.028	-0.017	0.028	0.018	0.6	0.9	88.6	91.2	2.68
G_LM3_GMK_120	-0.015	-0.010	0.016	0.010	0.4	0.6	88.0	91.0	3.01
G_LM3_GMK_121	-0.028	-0.017	0.028	0.018	0.6	0.9	88.1	90.8	2.69
G_LM3_GMK_122	-0.015	-0.010	0.016	0.010	0.4	0.6	87.5	90.5	3.02
G_LM3_GMK_123	-0.020	-0.013	0.021	0.013	0.3	0.5	88.3	90.3	1.97
G_LM3_GMK_124	-0.045	-0.028	0.046	0.029	0.8	1.2	87.8	90.1	2.22
G_LM3_GMK_125	-0.028	-0.017	0.028	0.018	0.6	0.9	87.2	89.9	2.71
G_LM3_GMK_126	-0.045	-0.028	0.046	0.029	0.8	1.2	87.6	89.8	2.22
G_LM3_GMK_127	-0.027	-0.017	0.028	0.018	0.6	0.9	86.9	89.7	2.72
G_LM3_GMK_128	-0.045	-0.028	0.046	0.029	0.8	1.2	87.3	89.5	2.23
G_LM3_GMK_129	-0.045	-0.028	0.046	0.029	0.8	1.2	87.2	89.4	2.23
G_LM3_GMK_130	-0.027	-0.017	0.028	0.018	0.6	0.9	86.6	89.3	2.72
G_LM3_GMK_131	-0.045	-0.028	0.046	0.029	0.8	1.2	87.0	89.2	2.23
G_LM3_GMK_132	-0.045	-0.028	0.046	0.029	0.8	1.2	87.8	90.0	2.22
G_LM3_GMK_133	-0.015	-0.010	0.016	0.010	0.4	0.6	87.0	90.0	3.04
G_LM3_GMK_134	-0.028	-0.017	0.028	0.018	0.6	0.9	87.3	90.0	2.71
G_LM3_GMK_135	-0.015	-0.010	0.016	0.010	0.4	0.6	86.9	90.0	3.04
G_LM3_GMK_136	-0.045	-0.028	0.046	0.029	0.8	1.2	87.8	90.0	2.22
G_LM3_GMK_137	-0.015	-0.010	0.016	0.010	0.4	0.6	86.8	89.9	3.04
G_LM3_GMK_138	-0.045	-0.028	0.046	0.029	0.8	1.2	87.5	89.7	2.23
G_LM3_GMK_139	-0.045	-0.028	0.046	0.029	0.8	1.2	87.3	89.6	2.23
G_LM3_GMK_140	-0.015	-0.010	0.016	0.010	0.4	0.6	86.5	89.5	3.05
G_LM3_GMK_141	-0.045	-0.028	0.046	0.029	0.8	1.2	87.3	89.5	2.23
G_LM3_GMK_142	-0.015	-0.010	0.016	0.010	0.4	0.6	86.4	89.5	3.05
G_LM3_GMK_143	-0.027	-0.017	0.028	0.018	0.6	0.9	86.8	89.5	2.72
G_LM3_GMK_144	-0.027	-0.017	0.028	0.018	0.6	0.9	86.8	89.5	2.72
G_LM3_GMK_145	-0.015	-0.009	0.016	0.010	0.4	0.6	86.4	89.4	3.05
G_LM3_GMK_146	-0.045	-0.028	0.046	0.029	0.8	1.2	87.0	89.3	2.23
G_LM3_GMK_147	0.016	0.010	-0.015	-0.009	0.4	0.6	89.0	85.9	3.06
G_LM3_GMK_148	0.046	0.029	-0.045	-0.028	0.8	1.3	88.8	86.6	2.24
G_LM3_GMK_149	0.028	0.018	-0.027	-0.017	0.6	0.9	88.7	85.9	2.74

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GMK_150	0.028	0.018	-0.027	-0.017	0.6	0.9	88.5	85.8	2.74
G_LM3_GMK_151	0.028	0.018	-0.027	-0.017	0.6	0.9	88.4	85.7	2.74
G_LM3_GMK_152	0.028	0.018	-0.027	-0.017	0.6	0.9	88.3	85.5	2.75
G_LM3_GMK_153	0.028	0.018	-0.027	-0.017	0.6	0.9	88.1	85.4	2.75
G_LM3_GMK_154	0.046	0.029	-0.045	-0.028	0.8	1.2	89.7	87.5	2.23
G_LM3_GML_179	0.020	0.013	-0.020	-0.013	0.2	0.2	88.0	87.0	1.00
G_LM3_GML_180	0.020	0.013	-0.020	-0.013	0.2	0.2	87.9	86.9	1.00
G_LM3_GML_181	0.020	0.013	-0.020	-0.012	0.3	0.5	87.7	85.7	2.01
G_LM3_GML_182	0.020	0.013	-0.020	-0.012	0.3	0.5	87.6	85.6	2.02
G_LM3_GML_183	0.020	0.013	-0.020	-0.012	0.3	0.5	87.5	85.5	2.02
G_LM3_GML_184	0.020	0.013	-0.020	-0.013	0.2	0.3	87.5	86.5	1.00
G_LM3_GML_185	0.020	0.013	-0.020	-0.013	0.2	0.3	87.5	86.5	1.00
G_LM3_GML_186	0.021	0.013	-0.020	-0.012	0.7	1.1	87.4	83.3	4.12
G_LM3_GML_187	0.020	0.013	-0.020	-0.012	0.3	0.5	87.3	85.2	2.02
G_LM3_GML_188	0.020	0.013	-0.020	-0.012	0.3	0.5	87.1	85.1	2.02
G_LM3_GML_189	0.020	0.013	-0.020	-0.012	0.3	0.5	87.0	85.0	2.03
G_LM3_GML_190	0.020	0.013	-0.020	-0.012	0.3	0.5	86.9	84.9	2.03
G_LM3_GML_191	0.020	0.013	-0.020	-0.012	0.3	0.5	86.8	84.8	2.03
G_LM3_GML_192	0.020	0.013	-0.020	-0.012	0.3	0.5	86.7	84.7	2.03
G_LM3_GML_193	0.020	0.013	-0.020	-0.012	0.3	0.5	86.6	84.5	2.03
G_LM3_GML_194	0.021	0.013	-0.020	-0.012	0.7	1.1	86.5	82.3	4.16
G_LM3_GML_195	0.020	0.013	-0.020	-0.012	0.2	0.3	86.5	85.4	1.01
G_LM3_GML_196	0.020	0.013	-0.020	-0.012	0.1	0.2	86.5	85.8	0.63
G_LM3_GML_197	0.020	0.013	-0.020	-0.012	0.2	0.3	86.4	85.4	1.01
G_LM3_GML_198	0.020	0.013	-0.020	-0.012	0.2	0.3	86.3	85.2	1.01
G_LM3_GML_199	0.020	0.013	-0.020	-0.012	0.3	0.5	86.2	84.1	2.04
G_LM3_GML_200	0.020	0.013	-0.020	-0.012	0.3	0.5	86.1	84.0	2.04
G_LM3_GML_201	0.020	0.013	-0.020	-0.012	0.3	0.5	86.0	83.9	2.05
G_LM3_GML_202	0.020	0.013	-0.020	-0.012	0.3	0.5	85.9	83.8	2.05
G_LM3_GML_203	0.020	0.013	-0.020	-0.012	0.3	0.5	85.8	83.7	2.05
G_LM3_GML_204	0.020	0.013	-0.020	-0.012	0.2	0.3	85.7	84.6	1.02
G_LM3_GML_205	0.020	0.013	-0.020	-0.012	0.2	0.3	85.6	84.5	1.02
G_LM3_GML_206	0.021	0.013	-0.020	-0.012	0.7	1.1	85.5	81.3	4.20
G_LM3_GML_207	0.020	0.013	-0.020	-0.012	0.4	0.5	85.4	83.3	2.06
G_LM3_GML_208	0.021	0.013	-0.020	-0.012	0.7	1.1	85.3	81.1	4.20
G_LM3_GML_209	0.020	0.013	-0.020	-0.012	0.4	0.5	85.3	83.2	2.06
G_LM3_GML_210	0.020	0.013	-0.020	-0.012	0.2	0.3	85.3	84.2	1.02

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GML_211	0.020	0.013	-0.020	-0.012	0.2	0.3	85.2	84.2	1.02
G_LM3_GML_212	0.020	0.013	-0.020	-0.012	0.2	0.3	85.1	84.1	1.02
G_LM3_GML_213	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	83.0	2.06
G_LM3_GML_214	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	83.0	2.06
G_LM3_GML_215	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	83.0	2.06
G_LM3_GML_216	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	82.9	2.06
G_LM3_GML_217	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	82.9	2.06
G_LM3_GML_218	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	82.9	2.06
G_LM3_GML_219	0.020	0.013	-0.020	-0.012	0.4	0.5	85.1	83.0	2.06
G_LM3_GML_220	0.020	0.013	-0.020	-0.012	0.4	0.5	85.1	83.0	2.06
G_LM3_GML_221	0.021	0.013	-0.020	-0.012	0.7	1.1	85.1	80.9	4.21
G_LM3_GML_222	0.021	0.013	-0.020	-0.012	0.7	1.1	85.1	80.9	4.21
G_LM3_GML_223	0.020	0.013	-0.020	-0.012	0.2	0.3	85.1	84.1	1.02
G_LM3_GML_224	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	83.0	2.06
G_LM3_GML_225	0.020	0.013	-0.020	-0.012	0.4	0.5	85.0	82.9	2.06
G_LM3_GML_226	0.021	0.013	-0.020	-0.012	0.7	1.1	84.9	80.7	4.22
G_LM3_GML_227	0.020	0.013	-0.020	-0.012	0.2	0.3	84.8	83.8	1.02
G_LM3_GML_228	0.020	0.013	-0.020	-0.012	0.4	0.5	84.8	82.8	2.07
G_LM3_GML_229	0.020	0.013	-0.020	-0.012	0.4	0.5	84.8	82.7	2.07
G_LM3_GML_230	0.020	0.013	-0.020	-0.012	0.4	0.5	84.8	82.7	2.07
G_LM3_GML_231	0.020	0.013	-0.020	-0.012	0.4	0.5	84.8	82.7	2.07
G_LM3_GML_232	0.020	0.013	-0.020	-0.012	0.4	0.5	84.8	82.7	2.07
G_LM3_GML_233	0.021	0.014	-0.020	-0.012	1.3	2.0	84.7	77.4	7.27
G_LM3_GML_234	0.021	0.014	-0.020	-0.012	1.3	2.0	84.7	77.4	7.27
G_LM3_GML_235	0.020	0.013	-0.020	-0.012	0.2	0.3	84.7	83.7	1.02
G_LM3_GML_236	0.020	0.013	-0.020	-0.012	0.2	0.3	84.7	83.7	1.02
G_LM3_GML_237	0.020	0.013	-0.020	-0.012	0.4	0.5	84.7	82.6	2.07
G_LM3_GML_238	0.020	0.013	-0.020	-0.012	0.4	0.5	84.6	82.6	2.07
G_LM3_GML_239	0.020	0.013	-0.020	-0.012	0.7	1.1	84.6	80.4	4.23
G_LM3_GML_240	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.5	2.07
G_LM3_GML_241	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_242	0.021	0.014	-0.020	-0.012	1.3	2.0	84.5	77.2	7.29
G_LM3_GML_243	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_244	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_245	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.4	2.07
G_LM3_GML_246	0.020	0.013	-0.020	-0.012	0.2	0.3	84.4	83.4	1.03
G_LM3_GML_247	0.020	0.013	-0.020	-0.012	0.2	0.3	84.4	83.4	1.03

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LM3_GML_248	0.020	0.013	-0.020	-0.012	0.7	1.1	84.5	80.3	4.23
G_LM3_GML_249	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_250	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_251	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_252	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_253	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_254	0.020	0.013	-0.020	-0.012	0.4	0.5	84.5	82.4	2.07
G_LM3_GML_255	0.020	0.013	-0.020	-0.012	0.2	0.3	84.5	83.4	1.03
G_LM3_GML_256	0.016	0.011	-0.016	-0.010	0.5	0.7	84.4	81.1	3.36
G_LM3_GML_257	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.4	2.07
G_LM3_GML_258	0.020	0.013	-0.020	-0.012	0.2	0.3	84.4	83.4	1.03
G_LM3_GML_259	0.020	0.013	-0.020	-0.012	0.7	1.1	84.4	80.2	4.24
G_LM3_GML_260	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM3_GML_261	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM3_GML_262	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM3_GML_263	0.020	0.013	-0.020	-0.012	0.2	0.3	84.4	83.4	1.03
G_LM3_GML_264	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM3_GML_265	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM3_GML_266	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM3_GML_267	0.020	0.013	-0.020	-0.012	0.4	0.5	84.4	82.3	2.07
G_LM4_GM_100	-0.028	-0.018	0.029	0.018	0.5	0.8	96.0	98.5	2.54
G_LM4_GM_101	-0.013	-0.008	0.013	0.008	0.0	0.0	98.2	98.5	0.35
G_LM4_GM_102	0.048	0.030	-0.047	-0.029	0.7	1.1	98.5	96.4	2.09
G_LM4_GM_103	-0.028	-0.018	0.029	0.018	0.5	0.8	95.9	98.5	2.55
G_LM4_GM_104	-0.028	-0.018	0.029	0.018	0.5	0.8	95.9	98.5	2.55
G_LM4_GM_105	0.048	0.030	-0.047	-0.029	0.7	1.1	98.4	96.4	2.09
G_LM4_GM_90	-0.006	-0.004	0.006	0.004	0.0	0.0	98.4	98.5	0.16
G_LM4_GM_91	-0.047	-0.029	0.048	0.030	0.7	1.1	96.4	98.5	2.09
G_LM4_GM_92	0.043	0.028	-0.042	-0.026	1.2	1.8	98.5	94.7	3.78
G_LM4_GM_93	-0.028	-0.018	0.029	0.018	0.5	0.8	95.9	98.5	2.55
G_LM4_GM_94	-0.003	-0.002	0.003	0.002	0.0	0.0	98.4	98.5	0.11
G_LM4_GM_95	0.048	0.030	-0.047	-0.029	0.7	1.1	98.5	96.4	2.09
G_LM4_GM_96	0.036	0.023	-0.035	-0.022	0.8	1.2	98.6	95.4	3.16
G_LM4_GM_97	-0.011	-0.007	0.011	0.007	0.0	0.1	98.1	98.5	0.48
G_LM4_GM_98	-0.012	-0.007	0.012	0.007	0.0	0.1	98.0	98.5	0.52
G_LM4_GM_99	0.004	0.003	-0.004	-0.003	0.0	0.0	98.5	98.2	0.37
G_LMT1_GMT031	-0.004	-0.002	0.004	0.003	0.0	0.0	82.5	83.3	0.83

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LMT1_GMT032	-0.014	-0.009	0.015	0.009	0.4	0.6	80.3	83.3	3.04
G_LMT1_GMT033	-0.052	-0.032	0.054	0.036	2.7	4.1	77.6	83.3	5.74
G_LMT1_GMT034	0.065	0.043	-0.061	-0.038	3.9	5.8	83.3	76.4	6.87
G_LMT1_GMT035	-0.027	-0.017	0.028	0.018	0.7	1.0	80.5	83.3	2.87
G_LMT1_GMT036	-0.039	-0.024	0.040	0.025	0.7	1.1	81.3	83.4	2.05
G_LMT1_GMT038	-0.053	-0.033	0.054	0.035	1.3	2.0	80.6	83.4	2.82
G_LMT1_GMT039	-0.034	-0.021	0.035	0.023	1.1	1.7	79.8	83.4	3.65
G_LMT1_GMT040	-0.049	-0.030	0.050	0.032	1.1	1.7	80.9	83.5	2.61
G_LMT1_GMT041	-0.055	-0.034	0.056	0.036	1.4	2.1	80.6	83.5	2.91
G_LMT1_GMT042	-0.044	-0.027	0.044	0.028	0.9	1.3	81.4	83.7	2.30
G_LMT1_GMT043	0.029	0.019	-0.028	-0.018	0.8	1.1	83.6	80.6	3.03
G_LMT1_GMT044	-0.071	-0.044	0.073	0.046	1.5	2.2	81.2	83.6	2.36
G_LMT1_GMT045	-0.033	-0.021	0.034	0.021	0.5	0.8	81.8	83.6	1.75
G_LMT1_GMT046	-0.042	-0.026	0.044	0.029	1.8	2.7	78.9	83.5	4.63
G_LMT1_GMT047	-0.016	-0.010	0.016	0.010	0.1	0.1	83.1	83.5	0.41
G_LMT1_GMT048	-0.029	-0.018	0.030	0.019	0.4	0.6	81.9	83.4	1.54
G_LMT1_GMT049	-0.015	-0.009	0.015	0.010	0.1	0.2	82.6	83.4	0.78
G_LMT1_GMT050	-0.057	-0.035	0.058	0.038	1.5	2.3	80.3	83.4	3.04
G_LMT1_GMT051	-0.031	-0.019	0.031	0.020	0.4	0.7	81.7	83.3	1.63
G_LMT1_GMT052	0.025	0.016	-0.025	-0.015	0.6	0.9	83.3	80.7	2.61
G_LMT1_GMT053	-0.010	-0.006	0.010	0.007	0.1	0.1	82.2	83.3	1.08
G_LMT1_GMT054	0.016	0.010	-0.016	-0.010	0.2	0.3	83.3	81.6	1.67
G_LMT1_GMT055	-0.005	-0.003	0.005	0.003	0.0	0.0	82.8	83.3	0.49
G_LMT1_GMT056	0.031	0.019	-0.030	-0.019	0.4	0.6	83.3	81.7	1.58
G_LMT1_GMT057	-0.014	-0.009	0.015	0.009	0.4	0.6	80.2	83.3	3.04
G_LMT1_GMT058	-0.046	-0.029	0.047	0.029	0.6	0.9	81.8	83.3	1.51
G_LMT1_GMT059	-0.004	-0.002	0.004	0.003	0.0	0.0	82.5	83.3	0.83
G_LMT1_GMT060	-0.014	-0.009	0.014	0.009	0.2	0.3	81.8	83.3	1.50
G_LMT1_GMT061	-0.065	-0.040	0.067	0.043	2.0	3.0	80.4	83.8	3.47
G_LMT1_GMT062	-0.016	-0.010	0.016	0.010	0.2	0.3	82.5	84.2	1.65
G_LMT1_GMT063	-0.056	-0.035	0.058	0.037	1.5	2.2	81.0	84.0	2.98
G_LMT1_GMT064	-0.005	-0.003	0.005	0.003	0.0	0.0	83.9	84.0	0.10
G_LMT1_GMT065	-0.024	-0.015	0.024	0.016	0.5	0.8	81.8	84.3	2.50
G_LMT1_GMT066	-0.013	-0.008	0.013	0.008	0.1	0.2	83.0	84.3	1.32
G_LMT1_GMT067	0.071	0.046	-0.069	-0.043	2.2	3.3	84.5	80.8	3.66
G_LMT1_GMT068	-0.029	-0.018	0.029	0.019	0.8	1.1	81.4	84.5	3.01
G_LMT1_GMT069	-0.008	-0.005	0.008	0.005	0.1	0.1	83.6	84.4	0.82

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LMT1_GMT070	-0.018	-0.011	0.018	0.011	0.1	0.2	83.5	84.4	0.90
G_LMT1_GMT071	-0.003	-0.002	0.003	0.002	0.0	0.0	84.0	84.3	0.33
G_LMT1_GMT072	-0.025	-0.016	0.026	0.017	0.6	0.9	81.7	84.3	2.67
G_LMT1_GMT073	-0.002	-0.001	0.002	0.001	0.0	0.0	84.0	84.3	0.24
G_LMT1_GMT074	-0.023	-0.014	0.024	0.015	0.5	0.7	81.9	84.3	2.42
G_LMT1_GMT075	-0.028	-0.017	0.028	0.018	0.3	0.5	82.8	84.3	1.44
G_LMT1_GMT076	-0.044	-0.028	0.045	0.029	0.9	1.4	81.9	84.3	2.33
G_LMT1_GMT077	-0.009	-0.005	0.009	0.006	0.0	0.1	83.8	84.3	0.45
G_LMT1_GMT079	-0.007	-0.004	0.007	0.005	0.0	0.1	83.6	84.3	0.74
G_LMT1_GMT080	-0.037	-0.023	0.038	0.024	0.6	0.9	82.3	84.3	1.95
G_LMT1_GMT081	-0.025	-0.015	0.025	0.016	0.6	0.8	81.7	84.3	2.59
G_LMT1_GMT123	-0.044	-0.027	0.045	0.029	0.9	1.4	81.3	83.6	2.34
G_LMT1_GMT132	-0.044	-0.028	0.045	0.029	0.9	1.4	82.0	84.3	2.33
G_LMT2_GMT081	-0.025	-0.015	0.025	0.016	0.6	0.8	81.8	84.3	2.58
G_LMT2_GMT082	-0.044	-0.028	0.045	0.029	0.9	1.4	81.9	84.2	2.33
G_LMT2_GMT083	-0.004	-0.002	0.004	0.003	0.0	0.0	83.3	84.1	0.82
G_LMT2_GMT084	-0.031	-0.019	0.032	0.020	0.9	1.3	80.7	84.0	3.28
G_LMT2_GMT085	-0.027	-0.017	0.028	0.018	0.7	1.0	81.1	83.9	2.85
G_LMT2_GMT086	-0.044	-0.028	0.045	0.029	0.9	1.4	81.5	83.8	2.34
G_LMT2_GMT087	-0.034	-0.021	0.035	0.023	1.1	1.7	80.1	83.8	3.64
G_LMT2_GMT088	-0.010	-0.006	0.010	0.006	0.1	0.1	82.7	83.7	0.99
G_LMT2_GMT089	-0.024	-0.015	0.024	0.016	0.5	0.8	81.0	83.5	2.52
G_LMT2_GMT090	-0.003	-0.002	0.003	0.002	0.0	0.0	82.8	83.5	0.66
G_LMT2_GMT091	-0.016	-0.010	0.016	0.010	0.5	0.7	80.0	83.4	3.39
G_LMT2_GMT092	-0.013	-0.008	0.014	0.009	0.2	0.3	81.9	83.3	1.41
G_LMT2_GMT093	-0.025	-0.016	0.026	0.017	0.6	0.9	80.5	83.2	2.70
G_LMT2_GMT094	-0.014	-0.009	0.015	0.009	0.4	0.6	80.1	83.2	3.05
G_LMT2_GMT095	-0.005	-0.003	0.005	0.003	0.0	0.0	82.6	83.1	0.50
G_LMT2_GMT096	-0.005	-0.003	0.005	0.003	0.0	0.0	82.6	83.1	0.50
G_LMT2_GMT097	-0.002	-0.001	0.002	0.001	0.0	0.0	82.5	83.0	0.50
G_LMT2_GMT098	-0.004	-0.002	0.004	0.003	0.0	0.0	82.1	82.9	0.83
G_LMT2_GMT099	-0.003	-0.002	0.003	0.002	0.0	0.0	82.6	82.9	0.33
G_LMT2_GMT100	-0.016	-0.010	0.016	0.010	0.1	0.2	82.0	82.9	0.83
G_LMT2_GMT101	-0.027	-0.017	0.028	0.018	0.7	1.0	80.0	82.9	2.88
G_LMT2_GMT102	-0.007	-0.004	0.007	0.005	0.0	0.1	82.1	82.9	0.75
G_LMT2_GMT103	-0.002	-0.001	0.002	0.001	0.0	0.0	82.6	82.8	0.25
G_LMT2_GMT104	-0.003	-0.002	0.003	0.002	0.0	0.0	82.5	82.8	0.33

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_LMT2_GMT105	-0.003	-0.002	0.003	0.002	0.0	0.0	82.5	82.9	0.33
G_LMT2_GMT106	-0.003	-0.002	0.003	0.002	0.0	0.0	82.6	82.9	0.33
G_LMT2_GMT107	-0.006	-0.004	0.006	0.004	0.0	0.0	82.5	82.8	0.33
G_LMT2_GMT108	-0.012	-0.007	0.012	0.008	0.1	0.2	81.5	82.8	1.25
G_LMT2_GMT109	-0.013	-0.008	0.013	0.008	0.1	0.2	81.4	82.8	1.34
G_LMT2_GMT110	-0.008	-0.005	0.008	0.005	0.1	0.1	81.9	82.7	0.83
G_LMT2_GMT111	-0.002	-0.001	0.002	0.001	0.0	0.0	82.2	82.7	0.50
G_LMT2_GMT112	-0.008	-0.005	0.008	0.005	0.1	0.1	81.7	82.5	0.83
G_LMT2_GMT113	-0.013	-0.008	0.013	0.008	0.1	0.1	81.8	82.5	0.67
G_LMT2_GMT114	-0.002	-0.001	0.002	0.001	0.0	0.0	82.3	82.5	0.17
G_LMT2_GMT116	-0.009	-0.005	0.009	0.006	0.1	0.1	81.6	82.5	0.92
G_LMT2_GMT117	-0.027	-0.017	0.027	0.018	0.7	1.0	79.5	82.4	2.89
G_LMT2_GMT118	-0.001	0.000	0.001	0.000	0.0	0.0	82.2	82.4	0.17
G_LMT2_GMT119	-0.003	-0.002	0.003	0.002	0.0	0.0	82.0	82.4	0.33
G_LMT2_GMT120	-0.031	-0.019	0.031	0.020	0.4	0.7	80.7	82.3	1.64
G_LMT2_GMT121	-0.022	-0.014	0.023	0.014	0.5	0.7	79.9	82.3	2.37
G_LMT2_GMT122	-0.024	-0.015	0.024	0.015	0.5	0.8	79.7	82.3	2.55
G_LMT2_GMT123	-0.024	-0.015	0.025	0.016	0.6	0.9	79.7	82.3	2.63
G_LMT2_GMT124	-0.022	-0.014	0.023	0.014	0.5	0.7	79.9	82.3	2.37
G_LMT2_GMT125	-0.002	-0.001	0.002	0.001	0.0	0.0	82.0	82.3	0.25
G_LMT2_GMT126	-0.003	-0.002	0.003	0.002	0.0	0.0	82.0	82.3	0.33
G_LMT2_GMT127	-0.025	-0.015	0.025	0.016	0.3	0.4	81.0	82.3	1.30
G_LMT2_GMT128	-0.002	-0.001	0.002	0.001	0.0	0.0	81.9	82.3	0.33
G_LMT2_GMT129	-0.006	-0.004	0.006	0.004	0.0	0.1	81.6	82.3	0.67
G_LMT2_GMT130	-0.002	-0.001	0.002	0.001	0.0	0.0	82.1	82.3	0.17
G_LMT2_GMT131	-0.027	-0.017	0.027	0.018	0.7	1.0	79.4	82.3	2.90
G_LMT2_GMT135	-0.027	-0.017	0.028	0.018	0.7	1.0	80.0	82.8	2.88
G_MR1_GMP_1	-0.030	-0.018	0.030	0.019	0.5	0.8	100.2	102.8	2.55
G_MR1_GMP_10	-0.067	-0.042	0.069	0.044	1.5	2.2	97.1	100.1	2.97
G_MR1_GMP_11	-0.034	-0.021	0.034	0.022	0.7	1.1	96.8	99.8	2.98
G_MR1_GMP_12	-0.034	-0.021	0.034	0.022	0.7	1.1	96.6	99.6	2.98
G_MR1_GMP_13	-0.067	-0.042	0.069	0.044	1.5	2.2	96.5	99.5	2.99
G_MR1_GMP_14	-0.067	-0.042	0.069	0.044	1.5	2.2	96.4	99.4	2.99
G_MR1_GMP_15	-0.021	-0.013	0.021	0.014	0.6	0.9	95.6	99.4	3.76
G_MR1_GMP_16	-0.067	-0.042	0.068	0.044	1.5	2.2	96.3	99.3	2.99
G_MR1_GMP_17	-0.033	-0.021	0.034	0.022	0.7	1.1	96.2	99.2	2.99
G_MR1_GMP_18	-0.033	-0.021	0.034	0.022	0.7	1.1	96.1	99.1	2.99

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_MR1_GMP_19	-0.033	-0.021	0.034	0.022	0.7	1.1	96.1	99.1	2.99
G_MR1_GMP_2_	0.017	0.011	-0.017	-0.011	0.4	0.5	102.4	99.5	2.93
G_MR1_GMP_20_	0.034	0.022	-0.033	-0.021	0.7	1.1	99.1	96.1	2.99
G_MR1_GMP_21	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	2.99
G_MR1_GMP_22	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	2.99
G_MR1_GMP_23	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	2.99
G_MR1_GMP_24	0.068	0.044	-0.067	-0.041	1.5	2.2	99.1	96.1	2.99
G_MR1_GMP_25	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	2.99
G_MR1_GMP_26	0.034	0.022	-0.033	-0.021	0.7	1.1	99.0	96.0	2.99
G_MR1_GMP_27	0.069	0.044	-0.067	-0.042	1.5	2.2	99.5	96.5	2.98
G_MR1_GMP_28	0.069	0.044	-0.067	-0.042	1.5	2.2	99.5	96.5	2.99
G_MR1_GMP_29	0.069	0.044	-0.067	-0.042	1.5	2.2	99.5	96.5	2.99
G_MR1_GMP_3	-0.030	-0.018	0.030	0.019	0.5	0.8	99.5	102.1	2.56
G_MR1_GMP_30	0.034	0.022	-0.034	-0.021	0.7	1.1	99.5	96.5	2.99
G_MR1_GMP_31	0.034	0.022	-0.034	-0.021	0.7	1.1	99.5	96.5	2.99
G_MR1_GMP_32	0.103	0.066	-0.101	-0.062	2.1	3.1	99.5	96.7	2.79
G_MR1_GMP_33_	0.034	0.022	-0.034	-0.021	0.7	1.1	99.4	96.4	2.99
G_MR1_GMP_34	0.034	0.022	-0.034	-0.021	0.7	1.1	99.4	96.4	2.99
G_MR1_GMP_35	0.034	0.022	-0.034	-0.021	0.7	1.1	99.3	96.4	2.99
G_MR1_GMP_36	0.034	0.022	-0.034	-0.021	0.7	1.1	99.3	96.3	2.99
G_MR1_GMP_37	0.017	0.011	-0.017	-0.010	0.4	0.6	99.3	96.3	2.99
G_MR1_GMP_38	0.034	0.022	-0.034	-0.021	0.7	1.1	99.3	96.3	2.99
G_MR1_GMP_39	0.068	0.044	-0.067	-0.042	1.5	2.2	99.3	96.3	2.99
G_MR1_GMP_4	-0.034	-0.021	0.035	0.022	0.7	1.1	98.8	101.8	2.94
G_MR1_GMP_5	-0.068	-0.042	0.069	0.044	1.4	2.2	98.5	101.5	2.95
G_MR1_GMP_6	-0.127	-0.079	0.129	0.082	2.5	3.8	98.4	101.2	2.76
G_MR1_GMP_7	-0.034	-0.021	0.034	0.022	0.7	1.1	97.9	100.9	2.96
G_MR1_GMP_8	-0.034	-0.021	0.034	0.022	0.7	1.1	97.6	100.6	2.96
G_MR1_GMP_9	-0.034	-0.021	0.034	0.022	0.7	1.1	97.4	100.3	2.97
G_MR4_GM02	1.819	1.156	-1.786	-1.107	32.5	48.8	102.7	100.2	2.55
G_MR4_GM03	0.039	0.024	-0.038	-0.024	0.4	0.7	102.8	101.2	1.62
G_MR4_GM04	0.012	0.008	-0.012	-0.007	0.1	0.1	102.8	101.8	1.00
G_MR4_GM05	0.013	0.008	-0.012	-0.008	0.2	0.3	102.8	100.7	2.12
G_MR4_GM06	0.017	0.011	-0.017	-0.011	0.4	0.5	102.6	99.6	2.95
G_MR4_GM07	0.027	0.017	-0.026	-0.016	0.9	1.3	102.3	97.8	4.56
G_MR4_GM08	0.001	0.001	-0.001	-0.001	0.0	0.0	102.1	102.0	0.07
G_MR4_GM09	0.079	0.053	-0.076	-0.047	3.9	5.8	101.8	95.0	6.86

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_MR4_GM10	0.016	0.010	-0.016	-0.010	0.1	0.1	101.6	100.9	0.68
G_MR4_GM11	0.060	0.041	-0.056	-0.034	4.6	6.9	101.4	90.8	10.59
G_MR4_GM12	0.019	0.012	-0.018	-0.011	0.4	0.6	101.1	97.9	3.18
G_MR4_GM13	0.102	0.070	-0.095	-0.059	6.9	10.4	99.1	89.9	9.18
G_MR4_GM14	0.073	0.049	-0.070	-0.043	3.5	5.3	99.1	92.6	6.51
G_MR4_GM15	0.058	0.040	-0.054	-0.033	4.5	6.8	99.0	88.5	10.50
G_MR4_GM16	0.004	0.003	-0.004	-0.003	0.0	0.0	99.0	98.8	0.19
G_MR4_GM17	0.035	0.022	-0.034	-0.021	0.8	1.2	98.9	95.8	3.08
G_MR4_GM18	0.017	0.011	-0.017	-0.011	0.2	0.3	98.8	97.3	1.51
G_MR4_GM19	0.097	0.063	-0.094	-0.058	3.0	4.5	99.1	94.8	4.26
G_MR4_GM20	0.065	0.042	-0.062	-0.038	2.7	4.0	99.1	93.4	5.71
G_MR4_GM21	0.050	0.032	-0.048	-0.030	1.6	2.4	99.1	94.7	4.40
G_MR4_GM22	0.021	0.013	-0.021	-0.013	0.1	0.2	99.1	98.2	0.92
G_MR4_GM23	0.062	0.043	-0.057	-0.035	5.1	7.7	99.2	88.1	11.19
G_MR4_GM24	0.052	0.034	-0.051	-0.031	1.7	2.6	99.6	95.0	4.59
G_MR4_GM25	0.039	0.024	-0.038	-0.024	0.5	0.7	99.4	97.7	1.67
G_MR4_GM26	0.029	0.019	-0.029	-0.018	0.5	0.8	100.9	98.4	2.52
G_MR4_GM27	0.076	0.050	-0.072	-0.045	3.6	5.4	100.7	94.0	6.63
G_MR4_GM28	0.021	0.013	-0.021	-0.013	0.3	0.4	100.5	98.7	1.79
G_MR4_GM29	0.032	0.021	-0.032	-0.020	0.7	1.0	100.3	97.5	2.80
G_MR4_GM30	0.067	0.044	-0.064	-0.040	2.9	4.3	100.1	94.2	5.90
G_MR4_GM31	0.029	0.018	-0.028	-0.018	0.3	0.4	99.9	98.6	1.24
G_MR4_GM32	0.004	0.003	-0.004	-0.003	0.0	0.0	99.7	99.0	0.75
G_MR4_GM33	0.016	0.010	-0.016	-0.010	0.1	0.1	99.9	99.1	0.71
G_MR4_GM34	0.070	0.045	-0.068	-0.042	1.5	2.3	99.8	96.8	3.02
G_MR4_GM35	0.084	0.056	-0.079	-0.049	4.5	6.8	99.8	92.4	7.42
G_MR4_GM36	0.005	0.003	-0.005	-0.003	0.0	0.1	99.8	98.9	0.93
G_MR4_GM37	0.023	0.014	-0.023	-0.014	0.2	0.2	99.8	98.8	0.99
G_MR4_GM38	0.054	0.035	-0.052	-0.032	1.9	2.8	99.8	95.1	4.74
G_MR4_GM39	0.050	0.032	-0.049	-0.030	1.6	2.4	99.8	95.4	4.37
G_MR4_GM40	0.055	0.035	-0.054	-0.033	0.9	1.4	100.6	98.3	2.35
G_MR4_GM41	0.060	0.038	-0.059	-0.037	1.1	1.7	100.6	98.0	2.58
G_MR4_GM42	0.017	0.011	-0.017	-0.011	0.1	0.1	100.6	99.9	0.75
G_MR4_GM43	0.014	0.009	-0.013	-0.008	0.1	0.2	100.6	99.4	1.16
G_MR4_GM44	0.071	0.045	-0.069	-0.043	1.6	2.3	100.6	97.5	3.06
G_MR4_GM45	0.018	0.012	-0.018	-0.011	0.2	0.3	100.6	99.0	1.58
G_MR4_GM46	0.044	0.028	-0.044	-0.027	0.6	0.9	100.6	98.7	1.90

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_MR4_GM47	0.052	0.033	-0.050	-0.031	1.7	2.5	100.6	96.1	4.47
G_MR4_GM48	0.038	0.024	-0.037	-0.023	0.4	0.7	99.0	97.3	1.63
G_MR4_GM49	0.024	0.015	-0.024	-0.015	0.2	0.3	99.1	98.0	1.06
G_MR4_GMP01	0.032	0.020	-0.031	-0.019	0.6	0.9	102.9	100.2	2.67
G_MR6_GMP040	-0.016	-0.010	0.016	0.010	0.3	0.5	99.3	102.1	2.79
G_MR6_GMP041	-0.029	-0.018	0.029	0.019	0.5	0.8	98.6	101.1	2.50
G_MR6_GMP042	-0.021	-0.013	0.021	0.014	0.3	0.4	98.3	100.2	1.84
G_MR6_GMP043	-0.013	-0.008	0.013	0.008	0.1	0.1	98.7	99.2	0.55
G_MR6_GMP044	-0.041	-0.025	0.042	0.026	0.6	0.8	96.4	98.3	1.83
G_MR6_GMP045	-0.047	-0.029	0.047	0.030	0.7	1.1	95.2	97.3	2.11
G_MR6_GMP046	-0.024	-0.015	0.025	0.016	0.4	0.6	95.1	97.3	2.18
G_MR6_GMP047	-0.026	-0.016	0.026	0.017	0.5	0.7	94.9	97.2	2.34
G_MR6_GMP048	-0.119	-0.074	0.121	0.077	2.4	3.6	94.5	97.2	2.70
G_MR6_GMP049	-0.010	-0.006	0.010	0.006	0.1	0.1	96.4	97.3	0.89
G_MR6_GMP050	-0.006	-0.004	0.006	0.004	0.0	0.0	96.8	97.3	0.52
G_MR6_GMP051	-0.019	-0.012	0.019	0.012	0.2	0.4	95.6	97.3	1.72
G_MR6_GMP052	-0.003	-0.002	0.003	0.002	0.0	0.0	97.0	97.3	0.30
G_MR6_GMP053	-0.006	-0.004	0.006	0.004	0.0	0.0	96.8	97.3	0.52
G_MR6_GMP054	-0.014	-0.009	0.014	0.009	0.1	0.1	95.8	96.4	0.64
G_MR6_GMP055	-0.028	-0.017	0.029	0.018	0.6	0.8	93.9	96.4	2.58
G_MR6_GMP056	-0.051	-0.031	0.051	0.033	0.9	1.4	93.3	95.6	2.32
G_MR6_GMP057	-0.008	-0.005	0.008	0.005	0.0	0.1	94.0	94.7	0.76
G_MR6_GMP058	-0.046	-0.029	0.047	0.030	0.8	1.2	91.8	93.9	2.16
G_MR6_GMP059	-0.028	-0.017	0.028	0.018	0.6	0.9	90.4	93.1	2.64
G_MR6_GMP060	-0.028	-0.017	0.028	0.018	0.6	0.9	89.6	92.3	2.66
G_MR6_GMP061	-0.045	-0.028	0.046	0.029	0.8	1.2	87.7	89.9	2.22
G_MR6_GMT001	-0.002	-0.001	0.002	0.001	0.0	0.0	89.5	89.8	0.31
G_MR6_GMT002	0.016	0.010	-0.016	-0.010	0.2	0.3	89.6	88.0	1.58
G_MR6_GMT003	-0.016	-0.010	0.016	0.010	0.2	0.3	87.9	89.5	1.58
G_MR6_GMT004	-0.002	-0.002	0.002	0.002	0.0	0.0	89.2	89.3	0.12
G_MR6_GMT005	-0.004	-0.003	0.004	0.003	0.0	0.0	88.9	89.1	0.20
G_MR6_GMT006	0.004	0.003	-0.004	-0.003	0.0	0.0	89.0	88.2	0.79
G_MR6_GMT007	-0.022	-0.014	0.022	0.014	0.4	0.6	86.7	88.8	2.16
G_MR6_GMT008	-0.021	-0.013	0.022	0.014	0.7	1.1	84.6	88.8	4.24
G_MR6_GMT009	-0.005	-0.003	0.005	0.003	0.0	0.1	87.9	88.8	0.95
G_MR6_GMT010	-0.027	-0.016	0.027	0.017	0.6	0.9	86.2	88.8	2.65
G_MR6_GMT011	-0.015	-0.010	0.016	0.010	0.2	0.3	87.3	88.8	1.51

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
G_MR6_GMT012	-0.011	-0.007	0.011	0.007	0.0	0.1	88.3	88.8	0.51
G_MR6_GMT013	-0.003	-0.002	0.003	0.002	0.0	0.0	88.1	88.7	0.63
G_MR6_GMT015	-0.009	-0.006	0.009	0.006	0.1	0.1	87.7	88.5	0.87
G_MR6_GMT016	-0.017	-0.011	0.017	0.011	0.2	0.4	86.7	88.4	1.68
G_MR6_GMT017	-0.014	-0.008	0.014	0.009	0.3	0.5	85.5	88.2	2.75
G_MR6_GMT018	-0.026	-0.016	0.026	0.017	0.6	0.8	85.5	88.1	2.59
G_MR6_GMT020	-0.047	-0.029	0.048	0.031	0.9	1.4	85.4	87.8	2.38
G_MR6_GMT021	-0.002	-0.002	0.002	0.002	0.0	0.0	87.4	87.6	0.24
G_MR6_GMT022	-0.042	-0.026	0.043	0.027	0.7	1.1	85.3	87.4	2.10
G_MR6_GMT023	-0.018	-0.011	0.018	0.011	0.1	0.2	86.3	87.2	0.88
G_MR6_GMT024	-0.007	-0.004	0.007	0.005	0.0	0.1	86.2	87.0	0.72
G_MR6_GMT025	-0.018	-0.011	0.018	0.011	0.3	0.4	85.2	87.0	1.78
G_MR6_GMT026	-0.027	-0.017	0.028	0.018	0.6	1.0	84.0	86.8	2.78
G_MR6_GMT027	-0.002	-0.001	0.002	0.002	0.0	0.0	86.3	86.5	0.24
G_MR6_GMT028	-0.025	-0.015	0.025	0.016	0.5	0.8	83.8	86.3	2.54
G_MR6_GMT029	-0.015	-0.009	0.016	0.010	0.4	0.6	83.0	86.2	3.14
G_MR6_GMT030	-0.001	0.000	0.001	0.001	0.0	0.0	86.0	86.2	0.16
G_MR6_GMT134	-0.027	-0.017	0.028	0.018	0.6	0.9	85.2	88.0	2.75
GI.MARISA	15.214	10.914	-15.182	-9.453	32.5	1460.5	100.0	103.2	3.16
INC LM3	1.417	0.827	-1.417	-0.840	0.7	-13.6	86.3	86.2	0.04
INC_MR.6	-2.306	-1.331	2.307	1.318	1.9	-12.3	84.6	84.7	0.07
L_AG2_3	0.000	0.000	0.000	0.000	0.0	-0.4	97.8	97.8	0.00
L_AG2_43	0.000	-0.001	0.000	0.000	0.0	-0.7	82.3	82.3	0.00
L_AG2_55	2.991	1.757	-2.961	-1.732	30.6	24.8	91.5	90.4	1.06
L_AG2_58	-2.951	-1.725	2.961	1.732	9.2	7.5	90.1	90.4	0.32
L_AG2_62	0.000	-0.001	0.000	0.000	0.0	-0.7	83.3	83.3	0.00
L_AG2_65	0.000	-0.001	0.000	0.000	0.0	-1.3	99.3	99.3	0.00
L_AG2_66	-1.243	-0.656	1.245	0.657	1.1	0.3	98.7	98.8	0.10
L_AG2_68	0.000	-0.001	0.000	0.000	0.0	-0.9	98.4	98.4	0.00
L_AG2_74	2.072	1.260	-2.069	-1.257	2.5	2.9	89.3	89.1	0.15
L_AG2_77	0.000	0.000	0.000	0.000	0.0	-0.4	84.4	84.4	0.00
L_LM1_GM_1	0.809	0.458	-0.808	-0.459	0.9	-0.5	98.6	98.5	0.13
L_LM1_GM_10	0.265	0.146	-0.264	-0.147	0.1	-1.2	98.0	98.0	0.04
L_LM1_GM_100	3.758	2.355	-3.750	-2.345	7.7	10.2	93.0	92.8	0.26
L_LM1_GM_102	3.742	2.340	-3.735	-2.330	7.6	10.2	92.8	92.5	0.26
L_LM1_GM_110	-3.727	-2.319	3.735	2.330	7.6	10.2	92.3	92.5	0.26
L_LM1_GM_111	0.028	0.017	-0.028	-0.018	0.0	-1.2	91.3	91.2	0.01

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
L_LM1_GM_112	-0.037	-0.022	0.037	0.021	0.0	-1.2	91.3	91.3	0.01
L_LM1_GM_113	-3.584	-2.208	3.591	2.218	7.2	9.6	91.3	91.5	0.25
L_LM1_GM_114	-3.620	-2.236	3.627	2.245	7.3	9.7	91.5	91.8	0.25
L_LM1_GM_115	-3.655	-2.263	3.663	2.273	7.4	9.9	91.8	92.0	0.25
L_LM1_GM_116	-3.691	-2.291	3.699	2.301	7.5	10.0	92.0	92.3	0.25
L_LM1_GM_12	0.235	0.128	-0.235	-0.129	0.1	-1.3	98.0	98.0	0.04
L_LM1_GM_124	3.520	2.169	-3.513	-2.160	6.9	9.2	91.3	91.0	0.24
L_LM1_GM_125	3.497	2.150	-3.490	-2.141	6.9	9.1	91.0	90.8	0.24
L_LM1_GM_126	3.462	2.123	-3.455	-2.114	6.7	9.0	90.8	90.5	0.24
L_LM1_GM_127	3.439	2.103	-3.433	-2.095	6.7	8.9	90.5	90.3	0.24
L_LM1_GM_128	3.412	2.081	-3.405	-2.073	6.6	8.8	90.3	90.1	0.24
L_LM1_GM_129	0.770	0.457	-0.769	-0.457	1.1	-0.2	90.1	89.9	0.14
L_LM1_GM_13	0.219	0.119	-0.219	-0.121	0.1	-1.3	98.0	97.9	0.04
L_LM1_GM_130	0.741	0.439	-0.740	-0.439	1.0	-0.3	89.9	89.8	0.13
L_LM1_GM_133	0.694	0.410	-0.693	-0.410	0.9	-0.4	89.8	89.7	0.13
L_LM1_GM_134	0.665	0.392	-0.664	-0.392	0.8	-0.4	89.7	89.5	0.12
L_LM1_GM_135	0.618	0.363	-0.617	-0.364	0.7	-0.5	89.5	89.4	0.11
L_LM1_GM_136	0.571	0.334	-0.570	-0.335	0.6	-0.6	89.4	89.3	0.10
L_LM1_GM_137	0.542	0.317	-0.542	-0.318	0.5	-0.6	89.3	89.2	0.10
L_LM1_GM_138	0.152	0.091	-0.152	-0.092	0.0	-1.1	90.1	90.0	0.03
L_LM1_GM_139	0.106	0.063	-0.106	-0.064	0.0	-1.1	90.0	90.0	0.02
L_LM1_GM_140	0.090	0.054	-0.090	-0.055	0.0	-1.1	90.0	90.0	0.02
L_LM1_GM_143	0.062	0.037	-0.062	-0.038	0.0	-1.1	90.0	90.0	0.01
L_LM1_GM_144	0.046	0.028	-0.046	-0.029	0.0	-1.1	90.0	90.0	0.01
L_LM1_GM_150	2.437	1.495	-2.434	-1.491	3.4	4.2	90.1	89.9	0.17
L_LM1_GM_151	-2.118	-1.289	2.121	1.292	2.6	3.1	89.3	89.4	0.15
L_LM1_GM_152	-2.136	-1.302	2.139	1.305	2.6	3.2	89.4	89.6	0.15
L_LM1_GM_153	-2.319	-1.414	2.322	1.418	3.1	3.8	89.6	89.7	0.16
L_LM1_GM_154	-2.414	-1.477	2.418	1.481	3.4	4.2	89.7	89.9	0.17
L_LM1_GM_16	-0.219	-0.122	0.219	0.121	0.1	-1.3	97.9	97.9	0.04
L_LM1_GM_160	0.134	0.080	-0.134	-0.081	0.0	-1.1	89.6	89.5	0.02
L_LM1_GM_161	-0.028	-0.018	0.028	0.017	0.0	-1.1	89.5	89.5	0.01
L_LM1_GM_162	-0.056	-0.035	0.056	0.034	0.0	-1.1	89.5	89.5	0.01
L_LM1_GM_163	-0.072	-0.044	0.072	0.043	0.0	-1.1	89.5	89.5	0.01
L_LM1_GM_164	-0.118	-0.072	0.118	0.071	0.0	-1.1	89.5	89.5	0.02
L_LM1_GM_166	0.496	0.288	-0.495	-0.289	0.4	-0.7	89.2	89.1	0.09
L_LM1_GM_168	0.474	0.275	-0.474	-0.276	0.4	-0.7	89.1	89.1	0.09

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
L_LM1_GM_169	0.453	0.263	-0.453	-0.264	0.4	-0.8	89.1	89.0	0.08
L_LM1_GM_17	-0.052	-0.028	0.052	0.027	0.0	-1.3	97.8	97.8	0.01
L_LM1_GM_172	0.433	0.251	-0.432	-0.252	0.3	-0.8	89.0	88.9	0.08
L_LM1_GM_174	0.021	0.012	-0.021	-0.013	0.0	-1.1	88.9	88.9	0.00
L_LM1_GM_175	-0.042	-0.026	0.042	0.025	0.0	-1.1	88.8	88.8	0.01
L_LM1_GM_176	0.082	0.048	-0.082	-0.049	0.0	-1.1	88.8	88.8	0.01
L_LM1_GM_177	0.062	0.036	-0.062	-0.037	0.0	-1.1	88.8	88.8	0.01
L_LM1_GM_178	0.041	0.024	-0.041	-0.025	0.0	-1.1	88.8	88.8	0.01
L_LM1_GM_179	0.021	0.012	-0.021	-0.013	0.0	-1.1	88.8	88.8	0.00
L_LM1_GM_18	-0.161	-0.089	0.161	0.088	0.0	-1.3	97.8	97.8	0.03
L_LM1_GM_181	0.021	0.012	-0.021	-0.013	0.0	-1.1	88.8	88.8	0.00
L_LM1_GM_183	-0.165	-0.097	0.165	0.096	0.0	-1.1	88.9	88.9	0.03
L_LM1_GM_185	0.124	0.072	-0.124	-0.073	0.0	-1.1	88.9	88.8	0.02
L_LM1_GM_187	-0.267	-0.157	0.267	0.156	0.1	-1.0	88.8	88.9	0.05
L_LM1_GM_189	0.246	0.144	-0.246	-0.145	0.1	-1.0	88.8	88.8	0.04
L_LM1_GM_19	0.199	0.110	-0.199	-0.111	0.1	-1.3	97.9	97.9	0.03
L_LM1_GM_190	0.226	0.132	-0.226	-0.133	0.1	-1.0	88.8	88.8	0.04
L_LM1_GM_191	0.205	0.120	-0.205	-0.121	0.1	-1.0	88.8	88.7	0.04
L_LM1_GM_192	0.020	0.012	-0.020	-0.013	0.0	-1.1	88.7	88.7	0.00
L_LM1_GM_194	0.164	0.096	-0.164	-0.097	0.0	-1.0	88.7	88.7	0.03
L_LM1_GM_196	0.143	0.084	-0.143	-0.085	0.0	-1.1	88.7	88.7	0.03
L_LM1_GM_197	0.123	0.072	-0.123	-0.073	0.0	-1.1	88.7	88.6	0.02
L_LM1_GM_198	0.021	0.012	-0.021	-0.013	0.0	-1.1	88.6	88.6	0.00
L_LM1_GM_20	0.176	0.096	-0.176	-0.097	0.0	-1.3	97.9	97.8	0.03
L_LM1_GM_203	0.082	0.048	-0.082	-0.049	0.0	-0.8	88.6	88.6	0.01
L_LM1_GM_204	-0.020	-0.013	0.020	0.012	0.0	-0.8	88.6	88.6	0.00
L_LM1_GM_205	-0.041	-0.025	0.041	0.024	0.0	-0.8	88.6	88.6	0.00
L_LM1_GM_206	-0.061	-0.037	0.061	0.036	0.0	-0.8	88.6	88.6	0.01
L_LM1_GM_208	-2.067	-1.254	2.069	1.257	2.5	3.0	89.0	89.1	0.15
L_LM1_GM_21	0.036	0.018	-0.036	-0.020	0.0	-1.3	97.8	97.8	0.01
L_LM1_GM_210	2.051	1.244	-2.049	-1.241	2.5	2.9	89.0	88.8	0.14
L_LM1_GM_211	2.003	1.211	-2.000	-1.209	2.3	2.7	88.8	88.7	0.14
L_LM1_GM_212	1.972	1.191	-1.970	-1.188	2.3	2.7	88.7	88.5	0.14
L_LM1_GM_213	1.942	1.170	-1.940	-1.168	2.2	2.6	88.5	88.4	0.14
L_LM1_GM_214	1.912	1.150	-1.910	-1.147	2.1	2.5	88.4	88.3	0.14
L_LM1_GM_215	1.882	1.129	-1.880	-1.127	2.1	2.4	88.3	88.1	0.13
L_LM1_GM_217	1.852	1.109	-1.850	-1.107	2.0	2.3	88.1	88.0	0.13

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_219	1.829	1.094	-1.827	-1.092	2.0	2.2	88.0	87.9	0.13
L_LM1_GM_22	0.024	0.012	-0.024	-0.013	0.0	-1.3	97.8	97.8	0.00
L_LM1_GM_220	1.807	1.079	-1.805	-1.077	1.9	2.2	87.9	87.7	0.13
L_LM1_GM_221	1.785	1.064	-1.783	-1.062	1.9	2.1	87.7	87.6	0.13
L_LM1_GM_222	1.762	1.049	-1.760	-1.047	1.8	2.1	87.6	87.5	0.12
L_LM1_GM_223	0.041	0.023	-0.041	-0.024	0.0	-1.1	87.5	87.5	0.01
L_LM1_GM_224	0.020	0.012	-0.020	-0.013	0.0	-1.1	87.5	87.5	0.00
L_LM1_GM_225	1.699	1.010	-1.697	-1.009	1.7	1.9	87.5	87.4	0.12
L_LM1_GM_226	1.677	0.995	-1.675	-0.993	1.7	1.8	87.4	87.3	0.12
L_LM1_GM_229	1.655	0.980	-1.653	-0.979	1.6	1.8	87.3	87.1	0.12
L_LM1_GM_23	0.003	0.000	-0.003	-0.002	0.0	-1.3	97.8	97.8	0.00
L_LM1_GM_230	-1.631	-0.964	1.633	0.966	1.6	1.7	87.0	87.1	0.12
L_LM1_GM_231	1.611	0.951	-1.609	-0.949	1.6	1.7	87.0	86.9	0.11
L_LM1_GM_232	-1.587	-0.935	1.589	0.936	1.5	1.6	86.8	86.9	0.11
L_LM1_GM_233	1.567	0.922	-1.565	-0.920	1.5	1.5	86.8	86.7	0.11
L_LM1_GM_234	-1.543	-0.906	1.545	0.907	1.4	1.5	86.6	86.7	0.11
L_LM1_GM_235	1.523	0.893	-1.522	-0.891	1.4	1.4	86.6	86.5	0.11
L_LM1_GM_236	-0.041	-0.024	0.041	0.023	0.0	-1.0	86.5	86.5	0.01
L_LM1_GM_237	0.020	0.012	-0.020	-0.013	0.0	-1.0	86.5	86.5	0.00
L_LM1_GM_238	1.461	0.855	-1.459	-0.853	1.3	1.3	86.5	86.4	0.10
L_LM1_GM_241	1.439	0.841	-1.438	-0.840	1.3	1.2	86.4	86.3	0.10
L_LM1_GM_246	1.396	0.841	-1.394	-0.840	1.5	0.9	86.2	86.1	0.11
L_LM1_GM_247	1.374	0.827	-1.372	-0.826	1.5	0.9	86.1	86.0	0.10
L_LM1_GM_248	1.352	0.813	-1.351	-0.813	1.4	0.9	86.0	85.9	0.10
L_LM1_GM_251	1.330	0.800	-1.329	-0.799	1.4	0.8	85.9	85.8	0.10
L_LM1_GM_252	-1.307	-0.785	1.309	0.786	1.3	0.8	85.7	85.8	0.10
L_LM1_GM_257	1.287	0.772	-1.286	-0.772	1.3	0.8	85.7	85.6	0.10
L_LM1_GM_258	-1.221	-0.731	1.222	0.731	1.2	0.6	85.3	85.4	0.09
L_LM1_GM_259	-1.242	-0.744	1.244	0.745	1.2	0.7	85.4	85.5	0.09
L_LM1_GM_260	-1.264	-0.758	1.265	0.759	1.3	0.7	85.5	85.6	0.10
L_LM1_GM_263	0.040	0.024	-0.040	-0.025	0.0	-1.0	85.3	85.3	0.01
L_LM1_GM_264	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.3	85.3	0.00
L_LM1_GM_267	1.160	0.694	-1.159	-0.693	1.1	0.5	85.3	85.2	0.09
L_LM1_GM_268	-0.142	-0.084	0.142	0.083	0.0	-1.0	85.1	85.1	0.03
L_LM1_GM_270	0.122	0.071	-0.122	-0.072	0.0	-1.0	85.1	85.0	0.02
L_LM1_GM_272	1.139	0.681	-1.138	-0.680	1.0	0.5	85.2	85.1	0.09
L_LM1_GM_275	-0.081	-0.049	0.081	0.048	0.0	-1.0	85.0	85.0	0.02

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_276	0.101	0.059	-0.101	-0.060	0.0	-1.0	85.0	85.0	0.02
L_LM1_GM_277	-0.041	-0.025	0.041	0.024	0.0	-1.0	85.0	85.0	0.01
L_LM1_GM_278	0.061	0.036	-0.061	-0.037	0.0	-1.0	85.0	85.0	0.01
L_LM1_GM_279	0.041	0.024	-0.041	-0.025	0.0	-1.0	85.1	85.1	0.01
L_LM1_GM_280	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.0	85.0	0.00
L_LM1_GM_282	0.020	0.012	-0.020	-0.013	0.0	-1.0	85.1	85.1	0.00
L_LM1_GM_286	0.061	0.036	-0.061	-0.037	0.0	-1.0	85.1	85.1	0.01
L_LM1_GM_287	-0.020	-0.013	0.020	0.012	0.0	-1.0	85.1	85.1	0.00
L_LM1_GM_288	-0.041	-0.025	0.041	0.024	0.0	-1.0	85.1	85.1	0.01
L_LM1_GM_29	0.099	0.056	-0.099	-0.058	0.0	-1.3	97.8	97.8	0.02
L_LM1_GM_292	0.894	0.537	-0.893	-0.537	0.6	0.2	85.1	85.0	0.07
L_LM1_GM_293	-0.852	-0.511	0.852	0.511	0.6	0.1	84.9	85.0	0.07
L_LM1_GM_294	-0.872	-0.524	0.873	0.524	0.6	0.1	85.0	85.0	0.07
L_LM1_GM_296	0.831	0.497	-0.830	-0.497	0.6	0.1	84.9	84.8	0.06
L_LM1_GM_3	0.773	0.437	-0.772	-0.437	0.9	-0.6	98.5	98.4	0.13
L_LM1_GM_30	0.092	0.053	-0.092	-0.054	0.0	-1.3	97.8	97.8	0.02
L_LM1_GM_300	-0.061	-0.036	0.061	0.035	0.0	-1.0	84.8	84.8	0.01
L_LM1_GM_301	-0.020	-0.013	0.020	0.012	0.0	-1.0	84.8	84.8	0.00
L_LM1_GM_302	-0.041	-0.025	0.041	0.024	0.0	-1.0	84.8	84.8	0.01
L_LM1_GM_305	0.770	0.462	-0.769	-0.462	0.5	0.0	84.8	84.8	0.06
L_LM1_GM_306	0.708	0.425	-0.708	-0.425	0.4	0.0	84.8	84.7	0.05
L_LM1_GM_309	0.041	0.024	-0.041	-0.025	0.0	-1.0	84.8	84.8	0.01
L_LM1_GM_31	-0.025	-0.016	0.025	0.015	0.0	-1.3	97.7	97.7	0.00
L_LM1_GM_310	-0.020	-0.013	0.020	0.012	0.0	-1.0	84.8	84.8	0.00
L_LM1_GM_315	-0.020	-0.013	0.020	0.012	0.0	-1.0	84.7	84.7	0.00
L_LM1_GM_316	-0.040	-0.024	0.040	0.023	0.0	-1.0	84.7	84.7	0.01
L_LM1_GM_317	-0.061	-0.037	0.061	0.036	0.0	-1.0	84.7	84.7	0.01
L_LM1_GM_318	-0.082	-0.050	0.082	0.049	0.0	-1.0	84.7	84.7	0.02
L_LM1_GM_32	-0.048	-0.029	0.048	0.027	0.0	-1.3	97.7	97.8	0.01
L_LM1_GM_323	-0.564	-0.337	0.564	0.337	0.3	-0.2	84.5	84.6	0.04
L_LM1_GM_324	-0.585	-0.350	0.585	0.350	0.3	-0.2	84.6	84.6	0.05
L_LM1_GM_325	-0.605	-0.363	0.605	0.363	0.3	-0.1	84.6	84.7	0.05
L_LM1_GM_326	0.626	0.376	-0.626	-0.376	0.3	-0.1	84.7	84.7	0.05
L_LM1_GM_33	-0.067	-0.040	0.067	0.039	0.0	-1.3	97.8	97.8	0.01
L_LM1_GM_331	-0.081	-0.048	0.081	0.047	0.0	-1.0	84.5	84.5	0.02
L_LM1_GM_332	-0.101	-0.060	0.101	0.059	0.0	-1.0	84.5	84.5	0.02
L_LM1_GM_333	-0.122	-0.073	0.122	0.072	0.0	-1.0	84.5	84.5	0.02

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_334	0.142	0.084	-0.142	-0.085	0.0	-1.0	84.5	84.5	0.03
L_LM1_GM_339	0.061	0.035	-0.061	-0.036	0.0	-1.0	84.5	84.4	0.01
L_LM1_GM_340	0.040	0.023	-0.040	-0.024	0.0	-1.0	84.4	84.4	0.01
L_LM1_GM_341	0.020	0.012	-0.020	-0.013	0.0	-1.0	84.4	84.4	0.00
L_LM1_GM_342	-0.121	-0.073	0.121	0.073	0.0	-0.4	84.4	84.4	0.01
L_LM1_GM_35	0.328	0.185	-0.328	-0.186	0.2	-1.2	98.4	98.3	0.05
L_LM1_GM_351	-0.300	-0.181	0.300	0.181	0.1	-0.3	84.5	84.5	0.02
L_LM1_GM_352	-0.020	-0.013	0.020	0.012	0.0	-1.0	84.5	84.5	0.00
L_LM1_GM_353	-0.040	-0.025	0.040	0.024	0.0	-1.0	84.5	84.5	0.01
L_LM1_GM_354	-0.061	-0.037	0.061	0.036	0.0	-1.0	84.5	84.5	0.01
L_LM1_GM_355	-0.081	-0.048	0.081	0.048	0.0	-1.0	84.5	84.5	0.02
L_LM1_GM_356	0.102	0.060	-0.101	-0.061	0.0	-1.0	84.5	84.5	0.02
L_LM1_GM_357	0.300	0.181	-0.300	-0.181	0.1	-0.3	84.5	84.5	0.02
L_LM1_GM_359	0.280	0.168	-0.280	-0.169	0.1	-0.3	84.5	84.5	0.02
L_LM1_GM_360	0.259	0.156	-0.259	-0.156	0.1	-0.3	84.5	84.5	0.02
L_LM1_GM_361	0.239	0.144	-0.239	-0.144	0.0	-0.4	84.5	84.4	0.02
L_LM1_GM_365	-0.020	-0.013	0.020	0.012	0.0	-1.0	84.4	84.4	0.00
L_LM1_GM_366	-0.040	-0.025	0.040	0.024	0.0	-1.0	84.4	84.4	0.01
L_LM1_GM_367	-0.016	-0.011	0.016	0.010	0.0	-1.0	84.4	84.4	0.00
L_LM1_GM_37	0.300	0.168	-0.300	-0.170	0.1	-1.2	98.3	98.3	0.05
L_LM1_GM_372	-0.142	-0.086	0.142	0.085	0.0	-0.4	84.4	84.4	0.01
L_LM1_GM_373	-0.162	-0.098	0.162	0.098	0.0	-0.4	84.4	84.4	0.01
L_LM1_GM_374	0.182	0.111	-0.182	-0.111	0.0	-0.4	84.4	84.4	0.01
L_LM1_GM_376	0.101	0.061	-0.101	-0.061	0.0	-0.4	84.4	84.4	0.01
L_LM1_GM_379	-0.020	-0.012	0.020	0.012	0.0	-0.4	84.4	84.4	0.00
L_LM1_GM_38	0.282	0.158	-0.282	-0.160	0.1	-1.2	98.3	98.2	0.05
L_LM1_GM_380	0.040	0.025	-0.040	-0.025	0.0	-0.4	84.4	84.4	0.00
L_LM1_GM_381	-0.020	-0.013	0.020	0.012	0.0	-1.0	84.4	84.4	0.00
L_LM1_GM_382	0.040	0.024	-0.040	-0.025	0.0	-1.0	84.4	84.4	0.01
L_LM1_GM_39	0.267	0.151	-0.267	-0.152	0.1	-1.2	98.2	98.2	0.04
L_LM1_GM_4	0.423	0.239	-0.423	-0.240	0.3	-1.1	98.4	98.3	0.07
L_LM1_GM_40	0.256	0.145	-0.256	-0.146	0.1	-1.3	98.2	98.1	0.04
L_LM1_GM_41	0.208	0.116	-0.208	-0.117	0.1	-1.3	98.1	98.1	0.03
L_LM1_GM_42	0.204	0.115	-0.204	-0.116	0.1	-1.3	98.1	98.1	0.03
L_LM1_GM_43	0.200	0.113	-0.200	-0.115	0.1	-1.3	98.1	98.0	0.03
L_LM1_GM_45	0.171	0.096	-0.171	-0.098	0.0	-1.3	98.0	98.0	0.03
L_LM1_GM_46	0.142	0.079	-0.142	-0.081	0.0	-1.3	98.0	98.0	0.02

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LM1_GM_47	-0.113	-0.065	0.113	0.064	0.0	-1.3	98.0	98.0	0.02
L_LM1_GM_48	0.134	0.076	-0.134	-0.077	0.0	-1.3	98.0	98.0	0.02
L_LM1_GM_49	0.084	0.047	-0.084	-0.048	0.0	-1.3	98.0	97.9	0.01
L_LM1_GM_5	0.382	0.214	-0.382	-0.215	0.2	-1.2	98.3	98.2	0.06
L_LM1_GM_50	0.055	0.030	-0.055	-0.031	0.0	-1.3	97.9	97.9	0.01
L_LM1_GM_55	0.043	0.023	-0.043	-0.025	0.0	-1.3	97.9	97.9	0.01
L_LM1_GM_56	-0.006	-0.004	0.006	0.002	0.0	-1.3	97.9	97.9	0.00
L_LM1_GM_57	-0.035	-0.021	0.035	0.019	0.0	-1.3	97.9	97.9	0.01
L_LM1_GM_6	0.379	0.214	-0.379	-0.215	0.2	-1.2	98.2	98.2	0.06
L_LM1_GM_61	-0.176	-0.105	0.176	0.104	0.0	-1.3	98.5	98.6	0.03
L_LM1_GM_62	0.170	0.101	-0.170	-0.103	0.0	-1.3	98.5	98.5	0.03
L_LM1_GM_63	0.122	0.072	-0.122	-0.074	0.0	-1.3	98.5	98.5	0.02
L_LM1_GM_67	0.079	0.046	-0.079	-0.047	0.0	-1.3	98.5	98.5	0.01
L_LM1_GM_68	0.050	0.029	-0.050	-0.030	0.0	-1.3	98.5	98.5	0.01
L_LM1_GM_69	0.048	0.029	-0.048	-0.030	0.0	-1.3	98.5	98.5	0.01
L_LM1_GM_7	0.336	0.187	-0.336	-0.188	0.2	-1.2	98.2	98.1	0.05
L_LM1_GM_73	-0.434	-0.254	0.434	0.253	0.3	-1.1	98.6	98.6	0.07
L_LM1_GM_74	-0.045	-0.026	0.045	0.024	0.0	-1.3	98.5	98.5	0.01
L_LM1_GM_75	-0.222	-0.129	0.222	0.128	0.1	-1.3	98.5	98.6	0.04
L_LM1_GM_76	0.033	0.018	-0.033	-0.020	0.0	-1.3	98.5	98.5	0.01
L_LM1_GM_77	0.166	0.098	-0.166	-0.099	0.0	-1.3	98.5	98.5	0.03
L_LM1_GM_78	-0.029	-0.018	0.029	0.017	0.0	-1.3	98.5	98.5	0.00
L_LM1_GM_79	0.153	0.091	-0.153	-0.092	0.0	-1.3	98.5	98.5	0.03
L_LM1_GM_8	0.308	0.171	-0.308	-0.172	0.1	-1.2	98.1	98.1	0.05
L_LM1_GM_80	-0.077	-0.046	0.077	0.045	0.0	-1.3	98.5	98.5	0.01
L_LM1_GM_81	-0.106	-0.063	0.106	0.062	0.0	-1.3	98.5	98.5	0.02
L_LM1_GM_83	0.048	0.028	-0.048	-0.029	0.0	-1.3	98.5	98.4	0.01
L_LM1_GM_9	0.286	0.158	-0.286	-0.159	0.1	-1.2	98.1	98.0	0.05
L_LM1_GM_93	-3.969	-2.518	3.977	2.529	8.4	11.2	94.4	94.6	0.27
L_LM1_GM_95	-3.932	-2.489	3.941	2.500	8.2	11.0	94.1	94.4	0.27
L_LM1_GM_96	3.904	2.470	-3.896	-2.460	8.1	10.9	94.1	93.8	0.27
L_LM1_GM_97	3.867	2.441	-3.859	-2.431	8.0	10.7	93.8	93.6	0.26
L_LM1_GM_98	3.831	2.413	-3.823	-2.402	7.9	10.6	93.6	93.3	0.26
L_LM1_GM_99	3.794	2.384	-3.787	-2.373	7.8	10.4	93.3	93.0	0.26
L_LMT1_GMT1	-0.335	-0.198	0.335	0.198	0.2	-0.5	84.5	84.5	0.05
L_LMT1_GMT100	0.083	0.050	-0.083	-0.051	0.0	-0.7	83.3	83.3	0.01
L_LMT1_GMT101	0.052	0.031	-0.052	-0.031	0.0	-0.7	83.3	83.3	0.01

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT1_GMT102	0.198	0.114	-0.198	-0.114	0.1	-0.6	83.4	83.3	0.03
L_LMT1_GMT105	0.027	0.015	-0.027	-0.016	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT106	0.016	0.010	-0.016	-0.010	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT109	-0.005	-0.003	0.005	0.002	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT11	-0.008	-0.005	0.008	0.004	0.0	-0.7	84.4	84.4	0.00
L_LMT1_GMT110	0.115	0.065	-0.115	-0.066	0.0	-0.6	83.3	83.3	0.02
L_LMT1_GMT116	-0.015	-0.009	0.015	0.009	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT117	0.110	0.063	-0.110	-0.064	0.0	-0.6	83.3	83.3	0.02
L_LMT1_GMT118	-0.045	-0.028	0.045	0.027	0.0	-0.7	83.3	83.3	0.01
L_LMT1_GMT12	0.234	0.136	-0.234	-0.136	0.1	-0.6	84.5	84.4	0.04
L_LMT1_GMT121	-0.047	-0.029	0.047	0.029	0.0	-0.7	83.3	83.3	0.01
L_LMT1_GMT122	0.065	0.036	-0.065	-0.037	0.0	-0.7	83.3	83.3	0.01
L_LMT1_GMT123	-0.004	-0.003	0.004	0.002	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT124	0.018	0.008	-0.018	-0.009	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT125	-0.014	-0.009	0.014	0.008	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT126	0.014	0.007	-0.014	-0.008	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT13	-0.018	-0.011	0.018	0.010	0.0	-0.7	84.4	84.4	0.00
L_LMT1_GMT130	0.074	0.045	-0.074	-0.046	0.0	-0.7	83.7	83.7	0.01
L_LMT1_GMT131	0.074	0.046	-0.074	-0.046	0.0	-0.7	83.7	83.7	0.01
L_LMT1_GMT132	0.029	0.018	-0.029	-0.019	0.0	-0.7	83.7	83.6	0.00
L_LMT1_GMT135	-0.045	-0.029	0.045	0.028	0.0	-0.7	83.6	83.6	0.01
L_LMT1_GMT136	0.447	0.279	-0.446	-0.279	0.4	-0.4	83.7	83.6	0.07
L_LMT1_GMT14	-0.226	-0.132	0.226	0.132	0.1	-0.6	84.4	84.4	0.04
L_LMT1_GMT140	0.401	0.251	-0.401	-0.252	0.3	-0.4	83.6	83.5	0.06
L_LMT1_GMT142	0.345	0.216	-0.345	-0.216	0.2	-0.5	83.5	83.5	0.06
L_LMT1_GMT145	-0.035	-0.023	0.035	0.022	0.0	-0.7	83.4	83.4	0.01
L_LMT1_GMT146	0.294	0.184	-0.294	-0.185	0.2	-0.5	83.5	83.4	0.05
L_LMT1_GMT147	-0.054	-0.035	0.054	0.034	0.0	-0.7	83.4	83.4	0.01
L_LMT1_GMT148	0.259	0.163	-0.259	-0.163	0.1	-0.6	83.4	83.4	0.04
L_LMT1_GMT152	0.205	0.129	-0.205	-0.130	0.1	-0.6	83.4	83.4	0.03
L_LMT1_GMT153	-0.165	-0.105	0.165	0.105	0.1	-0.6	83.3	83.4	0.03
L_LMT1_GMT156	0.138	0.088	-0.138	-0.088	0.0	-0.6	83.3	83.3	0.02
L_LMT1_GMT157	-0.073	-0.045	0.073	0.045	0.0	-0.7	83.3	83.3	0.01
L_LMT1_GMT160	-0.015	-0.009	0.015	0.009	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT161	0.019	0.009	-0.019	-0.010	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT162	-0.004	-0.003	0.004	0.002	0.0	-0.7	83.3	83.3	0.00
L_LMT1_GMT163	0.004	0.001	-0.004	-0.002	0.0	-0.7	83.3	83.3	0.00

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT1_GMT18	0.208	0.122	-0.208	-0.123	0.1	-0.6	84.4	84.4	0.03
L_LMT1_GMT19	0.029	0.017	-0.029	-0.017	0.0	-0.7	84.4	84.3	0.00
L_LMT1_GMT2	-0.071	-0.046	0.071	0.045	0.0	-0.7	84.5	84.5	0.01
L_LMT1_GMT22	-0.026	-0.017	0.026	0.016	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT23	0.026	0.015	-0.026	-0.016	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT24	0.179	0.106	-0.179	-0.107	0.1	-0.6	84.4	84.3	0.03
L_LMT1_GMT25	0.070	0.042	-0.070	-0.043	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT26	0.108	0.065	-0.108	-0.065	0.0	-0.7	84.3	84.3	0.02
L_LMT1_GMT30	-0.070	-0.043	0.070	0.043	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT32	0.063	0.039	-0.063	-0.040	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT33	0.025	0.015	-0.025	-0.016	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT37	-0.108	-0.066	0.108	0.065	0.0	-0.7	84.3	84.3	0.02
L_LMT1_GMT38	-0.082	-0.051	0.082	0.050	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT39	-0.106	-0.065	0.106	0.065	0.0	-0.7	84.3	84.3	0.02
L_LMT1_GMT42	0.054	0.033	-0.054	-0.034	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT43	-0.009	-0.006	0.009	0.005	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT44	-1.227	-0.745	1.229	0.746	2.7	1.3	84.4	84.5	0.19
L_LMT1_GMT48	-0.083	-0.050	0.083	0.049	0.0	-0.7	84.3	84.4	0.01
L_LMT1_GMT49	-0.013	-0.008	0.013	0.007	0.0	-0.7	84.3	84.3	0.00
L_LMT1_GMT5	-0.029	-0.019	0.029	0.018	0.0	-0.7	84.5	84.5	0.00
L_LMT1_GMT50	-0.058	-0.035	0.058	0.034	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT53	-0.045	-0.029	0.045	0.028	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT54	0.045	0.028	-0.045	-0.028	0.0	-0.7	84.3	84.3	0.01
L_LMT1_GMT57	-0.016	-0.010	0.016	0.010	0.0	-0.7	84.2	84.2	0.00
L_LMT1_GMT58	1.144	0.695	-1.142	-0.694	2.3	1.0	84.4	84.2	0.18
L_LMT1_GMT6	0.264	0.153	-0.263	-0.154	0.1	-0.6	84.5	84.5	0.04
L_LMT1_GMT62	-0.005	-0.003	0.005	0.002	0.0	-0.7	84.0	84.0	0.00
L_LMT1_GMT63	-0.062	-0.039	0.062	0.039	0.0	-0.7	84.0	84.0	0.01
L_LMT1_GMT64	-0.062	-0.039	0.062	0.038	0.0	-0.7	84.0	84.0	0.01
L_LMT1_GMT65	1.125	0.685	-1.123	-0.684	2.2	1.0	84.2	84.0	0.18
L_LMT1_GMT68	-0.067	-0.043	0.067	0.042	0.0	-0.7	83.8	83.8	0.01
L_LMT1_GMT69	1.061	0.646	-1.059	-0.645	2.0	0.8	84.0	83.8	0.17
L_LMT1_GMT70	0.992	0.603	-0.990	-0.602	1.8	0.6	83.8	83.7	0.16
L_LMT1_GMT71	0.470	0.278	-0.469	-0.278	0.4	-0.4	83.7	83.6	0.07
L_LMT1_GMT75	-0.107	-0.067	0.107	0.066	0.0	-0.6	83.6	83.6	0.02
L_LMT1_GMT76	0.107	0.067	-0.107	-0.067	0.0	-0.6	83.6	83.6	0.02
L_LMT1_GMT77	-0.034	-0.021	0.034	0.021	0.0	-0.7	83.6	83.6	0.01

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT1_GMT80	-0.044	-0.029	0.044	0.028	0.0	-0.7	83.5	83.5	0.01
L_LMT1_GMT81	0.363	0.212	-0.362	-0.213	0.2	-0.5	83.6	83.5	0.06
L_LMT1_GMT82	-0.016	-0.010	0.016	0.009	0.0	-0.7	83.5	83.5	0.00
L_LMT1_GMT83	0.318	0.185	-0.318	-0.185	0.2	-0.5	83.5	83.5	0.05
L_LMT1_GMT88	-0.030	-0.019	0.030	0.018	0.0	-0.7	83.4	83.4	0.00
L_LMT1_GMT89	0.302	0.176	-0.302	-0.176	0.2	-0.5	83.5	83.4	0.05
L_LMT1_GMT90	-0.015	-0.010	0.015	0.009	0.0	-0.7	83.4	83.4	0.00
L_LMT1_GMT91	-0.272	-0.159	0.272	0.158	0.1	-0.6	83.4	83.4	0.04
L_LMT1_GMT94	-0.058	-0.038	0.058	0.037	0.0	-0.7	83.4	83.4	0.01
L_LMT1_GMT95	0.257	0.150	-0.257	-0.150	0.1	-0.6	83.4	83.4	0.04
L_LMT1_GMT99	-0.083	-0.050	0.083	0.049	0.0	-0.7	83.3	83.3	0.01
L_LMT2_GMT1	0.740	0.413	-0.740	-0.413	0.9	0.0	84.6	84.5	0.11
L_LMT2_GMT10	0.662	0.366	-0.662	-0.366	0.7	-0.1	84.1	84.0	0.10
L_LMT2_GMT101	-0.008	-0.005	0.008	0.004	0.0	-0.6	82.5	82.6	0.00
L_LMT2_GMT102	-0.256	-0.139	0.256	0.138	0.1	-0.6	82.6	82.6	0.04
L_LMT2_GMT107	-0.013	-0.008	0.013	0.007	0.0	-0.6	82.5	82.5	0.00
L_LMT2_GMT108	-0.002	-0.001	0.002	0.000	0.0	-0.6	82.5	82.5	0.00
L_LMT2_GMT109	-0.002	0.000	0.002	0.000	0.0	-0.6	82.5	82.5	0.00
L_LMT2_GMT11	0.032	0.020	-0.032	-0.020	0.0	-0.7	84.0	84.0	0.01
L_LMT2_GMT110	-0.014	-0.007	0.014	0.006	0.0	-0.6	82.5	82.5	0.00
L_LMT2_GMT111	0.248	0.135	-0.248	-0.135	0.1	-0.6	82.6	82.5	0.04
L_LMT2_GMT116	-0.009	-0.006	0.009	0.005	0.0	-0.6	82.5	82.5	0.00
L_LMT2_GMT117	-0.027	-0.018	0.027	0.017	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT118	-0.225	-0.125	0.225	0.124	0.1	-0.6	82.4	82.5	0.04
L_LMT2_GMT119	0.234	0.129	-0.234	-0.129	0.1	-0.6	82.5	82.5	0.04
L_LMT2_GMT120	-0.001	0.000	0.001	0.000	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT121	-0.003	-0.002	0.003	0.001	0.0	-0.6	82.4	82.4	0.00
L_LMT2_GMT122	-0.196	-0.109	0.196	0.109	0.1	-0.6	82.4	82.4	0.03
L_LMT2_GMT123	0.197	0.108	-0.197	-0.109	0.1	-0.6	82.4	82.4	0.03
L_LMT2_GMT126	-0.031	-0.020	0.031	0.019	0.0	-0.6	82.3	82.3	0.01
L_LMT2_GMT127	0.193	0.108	-0.193	-0.109	0.1	-0.6	82.4	82.3	0.03
L_LMT2_GMT128	-0.023	-0.014	0.023	0.014	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT129	0.162	0.089	-0.162	-0.090	0.0	-0.6	82.3	82.3	0.03
L_LMT2_GMT134	-0.049	-0.030	0.049	0.029	0.0	-0.6	82.3	82.3	0.01
L_LMT2_GMT135	-0.025	-0.016	0.025	0.015	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT136	-0.025	-0.015	0.025	0.015	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT137	0.024	0.015	-0.024	-0.015	0.0	-0.6	82.3	82.3	0.00

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT2_GMT139	0.139	0.076	-0.139	-0.077	0.0	-0.6	82.3	82.3	0.02
L_LMT2_GMT14	0.630	0.347	-0.629	-0.347	0.7	-0.2	84.0	83.9	0.10
L_LMT2_GMT144	-0.023	-0.014	0.023	0.014	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT145	-0.002	-0.001	0.002	0.001	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT146	-0.002	-0.001	0.002	0.000	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT147	0.025	0.013	-0.025	-0.014	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT15	-0.601	-0.329	0.602	0.329	0.6	-0.2	83.8	83.9	0.09
L_LMT2_GMT154	-0.003	-0.002	0.003	0.001	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT155	-0.025	-0.016	0.025	0.015	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT156	-0.002	-0.001	0.002	0.000	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT157	-0.037	-0.020	0.037	0.020	0.0	-0.6	82.3	82.3	0.01
L_LMT2_GMT158	-0.062	-0.035	0.062	0.034	0.0	-0.6	82.3	82.3	0.01
L_LMT2_GMT159	0.065	0.035	-0.065	-0.035	0.0	-0.6	82.3	82.3	0.01
L_LMT2_GMT16	0.556	0.300	-0.555	-0.301	0.5	-0.3	83.8	83.8	0.08
L_LMT2_GMT163	0.035	0.020	-0.035	-0.021	0.0	-0.6	82.3	82.3	0.01
L_LMT2_GMT164	-0.027	-0.017	0.027	0.016	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT165	0.029	0.017	-0.029	-0.017	0.0	-0.6	82.3	82.3	0.00
L_LMT2_GMT17	-0.520	-0.278	0.520	0.278	0.5	-0.3	83.7	83.8	0.08
L_LMT2_GMT18	0.510	0.272	-0.510	-0.273	0.4	-0.3	83.7	83.6	0.08
L_LMT2_GMT2	0.740	0.413	-0.739	-0.413	0.9	0.0	84.5	84.3	0.11
L_LMT2_GMT20	-0.509	-0.273	0.510	0.273	0.4	-0.3	83.5	83.6	0.08
L_LMT2_GMT23	0.485	0.258	-0.485	-0.258	0.4	-0.4	83.5	83.5	0.07
L_LMT2_GMT24	0.003	0.001	-0.003	-0.002	0.0	-0.7	83.5	83.5	0.00
L_LMT2_GMT26	0.481	0.257	-0.481	-0.257	0.4	-0.4	83.5	83.4	0.07
L_LMT2_GMT27	0.465	0.246	-0.464	-0.247	0.4	-0.4	83.4	83.3	0.07
L_LMT2_GMT30	0.451	0.238	-0.450	-0.239	0.3	-0.4	83.3	83.2	0.07
L_LMT2_GMT31	-0.424	-0.223	0.424	0.222	0.3	-0.4	83.2	83.2	0.06
L_LMT2_GMT34	0.410	0.213	-0.409	-0.214	0.3	-0.5	83.2	83.1	0.06
L_LMT2_GMT35	0.005	0.002	-0.005	-0.003	0.0	-0.7	83.1	83.1	0.00
L_LMT2_GMT38	0.404	0.211	-0.404	-0.212	0.3	-0.5	83.1	83.1	0.06
L_LMT2_GMT39	0.399	0.209	-0.399	-0.209	0.3	-0.5	83.1	83.0	0.06
L_LMT2_GMT4	0.713	0.397	-0.713	-0.397	0.9	0.0	84.3	84.2	0.11
L_LMT2_GMT40	0.397	0.208	-0.396	-0.208	0.3	-0.5	83.0	82.9	0.06
L_LMT2_GMT41	0.094	0.047	-0.094	-0.048	0.0	-0.6	82.9	82.9	0.01
L_LMT2_GMT44	0.094	0.048	-0.094	-0.049	0.0	-0.6	82.9	82.9	0.01
L_LMT2_GMT45	0.004	0.002	-0.004	-0.003	0.0	-0.7	82.9	82.9	0.00
L_LMT2_GMT48	0.090	0.047	-0.090	-0.048	0.0	-0.6	82.9	82.9	0.01

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LMT2_GMT49	0.003	0.001	-0.003	-0.002	0.0	-0.7	82.9	82.9	0.00
L_LMT2_GMT54	0.087	0.046	-0.087	-0.047	0.0	-0.6	82.9	82.9	0.01
L_LMT2_GMT55	-0.028	-0.018	0.028	0.017	0.0	-0.7	82.9	82.9	0.00
L_LMT2_GMT56	-0.071	-0.038	0.071	0.037	0.0	-0.6	82.9	82.9	0.01
L_LMT2_GMT57	0.016	0.009	-0.016	-0.010	0.0	-0.7	82.9	82.9	0.00
L_LMT2_GMT6	0.667	0.368	-0.666	-0.368	0.8	-0.1	84.2	84.1	0.10
L_LMT2_GMT66	0.043	0.021	-0.043	-0.022	0.0	-0.7	82.9	82.9	0.01
L_LMT2_GMT67	-0.007	-0.005	0.007	0.004	0.0	-0.7	82.9	82.9	0.00
L_LMT2_GMT68	-0.002	-0.001	0.002	0.001	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT69	-0.003	-0.002	0.003	0.001	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT7	0.004	0.002	-0.004	-0.003	0.0	-0.7	84.1	84.1	0.00
L_LMT2_GMT70	-0.031	-0.018	0.031	0.017	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT71	-0.033	-0.018	0.033	0.017	0.0	-0.7	82.8	82.9	0.01
L_LMT2_GMT72	-0.040	-0.021	0.040	0.020	0.0	-0.7	82.9	82.9	0.01
L_LMT2_GMT73	0.003	0.001	-0.003	-0.002	0.0	-0.7	82.9	82.9	0.00
L_LMT2_GMT76	-0.028	-0.018	0.028	0.017	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT77	0.028	0.016	-0.028	-0.017	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT80	0.302	0.161	-0.302	-0.161	0.2	-0.5	82.9	82.9	0.05
L_LMT2_GMT81	0.299	0.159	-0.299	-0.160	0.2	-0.5	82.9	82.8	0.05
L_LMT2_GMT88	0.292	0.156	-0.292	-0.156	0.1	-0.5	82.8	82.8	0.05
L_LMT2_GMT89	0.012	0.007	-0.012	-0.008	0.0	-0.7	82.8	82.8	0.00
L_LMT2_GMT92	0.280	0.149	-0.280	-0.150	0.1	-0.6	82.8	82.8	0.04
L_LMT2_GMT93	0.267	0.142	-0.267	-0.142	0.1	-0.6	82.8	82.7	0.04
L_LMT2_GMT95	0.259	0.137	-0.259	-0.138	0.1	-0.6	82.7	82.7	0.04
L_LMT2_GMT96	0.257	0.137	-0.256	-0.137	0.1	-0.6	82.7	82.6	0.04
L_LMT2_GMT97	0.000	0.000	0.000	-0.001	0.0	-0.6	82.6	82.6	0.00
L_LMT2_GMT98	0.256	0.138	-0.256	-0.138	0.1	-0.6	82.6	82.6	0.04
L_LY02_01-3	1.855	1.179	-1.853	-1.177	2.4	1.4	103.0	102.9	0.15
L_LY02_11-3	3.130	1.874	-3.123	-1.868	6.8	5.3	102.3	102.1	0.25
L_LY02_12-3	3.122	1.868	-3.115	-1.863	6.8	5.3	102.1	101.8	0.25
L_LY02_14-3	3.036	1.810	-3.030	-1.805	6.4	5.0	101.8	101.6	0.24
L_LY02_15-3	3.014	1.795	-3.007	-1.790	6.3	4.9	101.6	101.4	0.24
L_LY02_16-3	-0.200	-0.132	0.200	0.131	0.0	-0.7	99.1	99.1	0.02
L_LY02_18-3	2.947	1.749	-2.941	-1.744	6.1	4.7	101.4	101.1	0.24
L_LY02_19-3	0.098	0.063	-0.098	-0.063	0.0	-0.7	99.1	99.1	0.01
L_LY02_21-3	-0.096	-0.063	0.096	0.062	0.0	-0.7	99.0	99.0	0.01
L_LY02_2-3	1.821	1.157	-1.819	-1.156	2.3	1.3	102.9	102.7	0.15

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LY02_23-3	-1.400	-0.756	1.401	0.756	1.4	0.5	99.0	99.1	0.11
L_LY02_24-3	1.299	0.691	-1.298	-0.690	1.2	0.4	99.0	98.9	0.10
L_LY02_26-3	1.263	0.668	-1.262	-0.668	1.1	0.3	98.9	98.8	0.10
L_LY02_27-3	-0.212	-0.136	0.212	0.136	0.0	-0.7	99.1	99.1	0.02
L_LY02_29-3	0.115	0.073	-0.115	-0.074	0.0	-0.7	99.1	99.1	0.01
L_LY02_30-3	0.050	0.032	-0.050	-0.032	0.0	-0.7	99.1	99.1	0.00
L_LY02_32-3	-1.834	-1.037	1.836	1.038	2.4	1.4	99.1	99.2	0.15
L_LY02_3-3	3.255	1.957	-3.251	-1.951	4.3	5.3	103.0	102.8	0.18
L_LY02_33-3	-1.898	-1.081	1.901	1.083	2.6	1.6	99.2	99.4	0.15
L_LY02_35-3	-1.995	-1.143	1.997	1.145	2.8	1.8	99.6	99.7	0.16
L_LY02_37-3	1.942	1.109	-1.940	-1.107	2.7	1.7	99.6	99.4	0.16
L_LY02_38-3	2.922	1.732	-2.916	-1.728	6.0	4.6	101.1	100.9	0.23
L_LY02_40-3	2.887	1.709	-2.881	-1.705	5.9	4.5	100.9	100.7	0.23
L_LY02_41-3	2.474	1.449	-2.469	-1.446	4.3	3.1	100.7	100.5	0.20
L_LY02_4-3	0.013	0.007	-0.013	-0.008	0.0	-0.7	102.8	102.8	0.00
L_LY02_43-3	2.449	1.433	-2.444	-1.429	4.2	3.1	100.5	100.3	0.20
L_LY02_44-3	2.412	1.409	-2.408	-1.406	4.1	3.0	100.3	100.1	0.19
L_LY02_45-3	2.005	1.149	-2.002	-1.147	2.8	1.8	99.9	99.7	0.16
L_LY02_47-3	2.340	1.362	-2.337	-1.359	3.9	2.8	100.1	99.9	0.19
L_LY02_48-3	0.303	0.192	-0.303	-0.192	0.1	-0.6	99.9	99.9	0.03
L_LY02_50-3	0.287	0.182	-0.287	-0.183	0.1	-0.6	99.9	99.8	0.02
L_LY02_51-3	0.217	0.138	-0.217	-0.139	0.0	-0.7	99.8	99.8	0.02
L_LY02_53-3	0.028	0.016	-0.028	-0.017	0.0	-0.7	99.8	99.8	0.00
L_LY02_54-3	0.023	0.014	-0.023	-0.014	0.0	-0.7	99.8	99.8	0.00
L_LY02_56-3	-0.054	-0.035	0.054	0.035	0.0	-0.7	99.8	99.8	0.00
L_LY02_57-3	0.104	0.066	-0.104	-0.067	0.0	-0.7	99.8	99.8	0.01
L_LY02_59-3	0.332	0.205	-0.331	-0.206	0.1	-0.6	100.7	100.6	0.03
L_LY02_60-3	0.277	0.171	-0.277	-0.172	0.1	-0.7	100.6	100.6	0.02
L_LY02_62-3	0.031	0.018	-0.031	-0.019	0.0	-0.7	100.6	100.6	0.00
L_LY02_6-3	0.025	0.014	-0.025	-0.015	0.0	-0.7	102.8	102.8	0.00
L_LY02_63-3	0.014	0.008	-0.014	-0.009	0.0	-0.7	100.6	100.6	0.00
L_LY02_65-3	0.185	0.116	-0.185	-0.116	0.0	-0.7	100.6	100.6	0.02
L_LY02_66-3	0.114	0.071	-0.114	-0.072	0.0	-0.7	100.6	100.6	0.01
L_LY02_68-3	0.096	0.060	-0.096	-0.061	0.0	-0.7	100.6	100.6	0.01
L_LY02_69-3	0.052	0.033	-0.052	-0.033	0.0	-0.7	100.6	100.6	0.00
L_LY02_71-3	0.038	0.023	-0.038	-0.024	0.0	-0.7	99.0	99.0	0.00
L_LY02_72-3	0.024	0.015	-0.024	-0.015	0.0	-0.7	99.1	99.1	0.00

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_LY02_8-3	3.188	1.913	-3.181	-1.908	6.9	5.4	102.8	102.6	0.25
L_LY02_9-3	3.163	1.896	-3.157	-1.891	6.9	5.4	102.6	102.3	0.25
L_MR1_GMP_1	-1.839	-1.126	1.845	1.129	5.8	2.8	102.8	103.1	0.34
L_MR1_GMP_10	1.387	0.846	-1.384	-0.845	3.4	1.1	100.3	100.1	0.26
L_MR1_GMP_11	1.315	0.801	-1.312	-0.800	3.1	0.9	100.1	99.8	0.25
L_MR1_GMP_12	1.278	0.778	-1.275	-0.777	2.9	0.8	99.8	99.6	0.24
L_MR1_GMP_13	0.606	0.369	-0.605	-0.369	0.7	-0.9	99.6	99.5	0.12
L_MR1_GMP_14	0.537	0.326	-0.536	-0.327	0.5	-1.0	99.5	99.4	0.10
L_MR1_GMP_15	0.021	0.012	-0.021	-0.014	0.0	-1.3	99.4	99.4	0.00
L_MR1_GMP_16	0.446	0.270	-0.446	-0.271	0.4	-1.1	99.4	99.3	0.08
L_MR1_GMP_17	0.377	0.228	-0.377	-0.229	0.3	-1.1	99.3	99.2	0.07
L_MR1_GMP_18	0.343	0.207	-0.342	-0.208	0.2	-1.2	99.2	99.1	0.07
L_MR1_GMP_19	0.308	0.186	-0.308	-0.188	0.2	-1.2	99.1	99.1	0.06
L_MR1_GMP_21	-0.103	-0.063	0.103	0.062	0.0	-1.3	99.0	99.1	0.02
L_MR1_GMP_22	0.068	0.041	-0.068	-0.042	0.0	-1.3	99.0	99.0	0.01
L_MR1_GMP_23	0.034	0.021	-0.034	-0.022	0.0	-1.3	99.0	99.0	0.01
L_MR1_GMP_24	0.137	0.083	-0.137	-0.085	0.0	-1.3	99.1	99.1	0.03
L_MR1_GMP_25	0.068	0.041	-0.068	-0.042	0.0	-1.3	99.1	99.0	0.01
L_MR1_GMP_26	0.034	0.021	-0.034	-0.022	0.0	-1.3	99.0	99.0	0.01
L_MR1_GMP_27	0.635	0.387	-0.634	-0.388	0.6	-0.8	99.6	99.5	0.10
L_MR1_GMP_28	0.069	0.042	-0.069	-0.044	0.0	-1.3	99.5	99.5	0.01
L_MR1_GMP_29	0.069	0.042	-0.069	-0.044	0.0	-1.3	99.5	99.5	0.01
L_MR1_GMP_3	-1.780	-1.090	1.786	1.093	5.5	2.6	102.1	102.4	0.33
L_MR1_GMP_30	0.034	0.021	-0.034	-0.022	0.0	-1.3	99.5	99.5	0.01
L_MR1_GMP_31	0.034	0.021	-0.034	-0.022	0.0	-1.3	99.5	99.5	0.01
L_MR1_GMP_32	0.103	0.064	-0.103	-0.066	0.0	-1.3	99.5	99.5	0.02
L_MR1_GMP_34	-0.223	-0.134	0.223	0.133	0.1	-1.3	99.4	99.4	0.04
L_MR1_GMP_35	0.189	0.112	-0.188	-0.114	0.1	-1.3	99.4	99.3	0.04
L_MR1_GMP_36	0.154	0.092	-0.154	-0.093	0.0	-1.3	99.3	99.3	0.03
L_MR1_GMP_37	0.120	0.071	-0.120	-0.073	0.0	-1.3	99.3	99.3	0.02
L_MR1_GMP_38	0.103	0.062	-0.103	-0.063	0.0	-1.3	99.3	99.3	0.02
L_MR1_GMP_39	0.069	0.041	-0.068	-0.042	0.0	-1.3	99.3	99.3	0.01
L_MR1_GMP_4	1.750	1.071	-1.745	-1.069	5.3	2.4	102.1	101.8	0.33
L_MR1_GMP_41	0.137	0.082	-0.137	-0.083	0.0	-1.3	99.1	99.1	0.03
L_MR1_GMP_43	1.809	1.107	-1.803	-1.104	5.6	2.6	102.8	102.4	0.33
L_MR1_GMP_45	0.257	0.154	-0.257	-0.155	0.1	-1.3	99.5	99.4	0.05
L_MR1_GMP_5	1.710	1.047	-1.705	-1.044	5.1	2.3	101.8	101.5	0.32

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
L_MR1_GMP_6	1.636	1.000	-1.631	-0.998	4.7	2.0	101.5	101.2	0.31
L_MR1_GMP_7	1.502	0.916	-1.498	-0.914	4.0	1.5	101.2	100.9	0.28
L_MR1_GMP_8	1.464	0.892	-1.460	-0.891	3.8	1.4	100.9	100.6	0.27
L_MR1_GMP_9	1.425	0.869	-1.422	-0.868	3.6	1.3	100.6	100.3	0.27
L_MR6_GMP1	3.887	2.510	-3.859	-2.475	27.2	35.5	103.1	102.1	0.97
L_MR6_GMP10	0.047	0.029	-0.047	-0.030	0.0	-0.9	97.3	97.3	0.01
L_MR6_GMP12	0.172	0.105	-0.172	-0.106	0.0	-0.9	97.3	97.3	0.02
L_MR6_GMP13	0.025	0.015	-0.025	-0.016	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP16	0.148	0.091	-0.148	-0.092	0.0	-0.9	97.3	97.2	0.02
L_MR6_GMP17	0.026	0.016	-0.026	-0.017	0.0	-0.9	97.2	97.2	0.00
L_MR6_GMP19	0.121	0.076	-0.121	-0.077	0.0	-0.9	97.2	97.2	0.02
L_MR6_GMP2	3.843	2.464	-3.816	-2.429	27.0	35.2	102.1	101.1	0.97
L_MR6_GMP20	0.045	0.021	-0.045	-0.022	0.0	-0.9	97.3	97.3	0.01
L_MR6_GMP21	0.016	0.007	-0.016	-0.008	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP24	-0.016	-0.009	0.016	0.008	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP25	0.006	0.003	-0.006	-0.004	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP26	0.029	0.014	-0.029	-0.015	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP29	-0.029	-0.016	0.029	0.015	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP30	-0.009	-0.005	0.009	0.004	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP32	0.006	0.003	-0.006	-0.004	0.0	-0.9	97.3	97.3	0.00
L_MR6_GMP33	3.342	2.072	-3.320	-2.043	22.0	28.5	97.3	96.4	0.87
L_MR6_GMP35	-0.043	-0.026	0.043	0.025	0.0	-0.9	96.4	96.4	0.01
L_MR6_GMP36	0.029	0.017	-0.029	-0.018	0.0	-0.9	96.4	96.4	0.00
L_MR6_GMP38	3.277	2.018	-3.255	-1.990	21.5	27.8	96.4	95.6	0.86
L_MR6_GMP39	3.204	1.957	-3.183	-1.931	20.8	26.9	95.6	94.7	0.84
L_MR6_GMP4	3.787	2.411	-3.760	-2.376	26.6	34.7	101.1	100.2	0.96
L_MR6_GMP40	0.008	0.004	-0.008	-0.005	0.0	-0.9	94.7	94.7	0.00
L_MR6_GMP42	3.175	1.926	-3.154	-1.899	20.7	26.8	94.7	93.9	0.84
L_MR6_GMP43	3.107	1.870	-3.087	-1.844	20.1	26.0	93.9	93.1	0.83
L_MR6_GMP44	3.059	1.826	-3.039	-1.800	19.7	25.5	93.1	92.3	0.82
L_MR6_GMP45	-2.991	-1.757	3.011	1.782	19.4	25.0	91.5	92.3	0.81
L_MR6_GMP5	3.739	2.362	-3.712	-2.328	26.3	34.4	100.2	99.2	0.95
L_MR6_GMP6	3.700	2.320	-3.674	-2.286	26.1	34.2	99.2	98.3	0.95
L_MR6_GMP7	3.632	2.260	-3.606	-2.226	25.6	33.4	98.3	97.3	0.94
L_MR6_GMP9	0.220	0.134	-0.220	-0.134	0.1	-0.9	97.3	97.3	0.03
L_MR6_GMT1	2.951	1.725	-2.947	-1.721	4.6	3.7	90.1	89.9	0.16
L_MR6_GMT12	2.874	1.675	-2.869	-1.671	4.4	3.6	89.6	89.5	0.16

Branch ID	From-To Bus Flow		To-From Bus Flow		Losses		% Bus Voltage		Vd % Drop in Vmag
	MW	Mvar	MW	Mvar	kW	kvar	From	To	
L_MR6_GMT13	2.853	1.661	-2.848	-1.657	4.3	3.5	89.5	89.3	0.15
L_MR6_GMT16	2.846	1.656	-2.842	-1.652	4.3	3.5	89.3	89.1	0.15
L_MR6_GMT17	0.004	0.002	-0.004	-0.003	0.0	-0.8	89.1	89.1	0.00
L_MR6_GMT19	2.838	1.650	-2.833	-1.647	4.3	3.5	89.1	89.0	0.15
L_MR6_GMT2	0.046	0.029	-0.046	-0.029	0.0	-0.8	89.9	89.9	0.01
L_MR6_GMT22	2.829	1.644	-2.825	-1.641	4.3	3.5	89.0	88.8	0.15
L_MR6_GMT23	0.022	0.013	-0.022	-0.014	0.0	-0.8	88.8	88.8	0.00
L_MR6_GMT24	0.080	0.045	-0.080	-0.046	0.0	-0.7	88.8	88.8	0.01
L_MR6_GMT29	0.026	0.016	-0.026	-0.016	0.0	-0.7	88.8	88.8	0.00
L_MR6_GMT30	0.005	0.002	-0.005	-0.003	0.0	-0.8	88.8	88.8	0.00
L_MR6_GMT31	0.053	0.030	-0.053	-0.031	0.0	-0.7	88.8	88.8	0.01
L_MR6_GMT34	-0.053	-0.032	0.053	0.031	0.0	-0.7	88.8	88.8	0.01
L_MR6_GMT35	0.027	0.017	-0.027	-0.017	0.0	-0.7	88.8	88.8	0.00
L_MR6_GMT37	0.026	0.015	-0.026	-0.016	0.0	-0.7	88.8	88.8	0.00
L_MR6_GMT38	0.011	0.006	-0.011	-0.007	0.0	-0.7	88.8	88.8	0.00
L_MR6_GMT39	2.723	1.583	-2.719	-1.579	4.0	3.2	88.8	88.7	0.15
L_MR6_GMT40	2.715	1.577	-2.711	-1.574	4.0	3.2	88.7	88.5	0.15
L_MR6_GMT43	2.702	1.568	-2.698	-1.565	4.0	3.2	88.5	88.4	0.15
L_MR6_GMT44	-2.677	-1.551	2.681	1.554	3.9	3.2	88.2	88.4	0.15
L_MR6_GMT45	2.663	1.542	-2.660	-1.539	3.9	3.1	88.2	88.1	0.15
L_MR6_GMT46	-2.629	-1.519	2.633	1.522	3.8	3.0	88.0	88.1	0.14
L_MR6_GMT48	2.601	1.501	-2.598	-1.498	3.7	3.0	88.0	87.8	0.14
L_MR6_GMT49	2.549	1.468	-2.543	-1.464	5.9	3.9	87.8	87.6	0.22
L_MR6_GMT5	2.901	1.692	-2.896	-1.689	4.4	3.6	89.9	89.8	0.16
L_MR6_GMT50	0.002	0.001	-0.002	-0.002	0.0	-0.7	87.6	87.6	0.00
L_MR6_GMT52	2.541	1.463	-2.535	-1.459	5.9	3.9	87.6	87.4	0.22
L_MR6_GMT54	2.493	1.432	-2.487	-1.428	5.7	3.7	87.4	87.2	0.21
L_MR6_GMT57	2.469	1.417	-2.463	-1.414	5.6	3.7	87.2	87.0	0.21
L_MR6_GMT58	0.025	0.014	-0.025	-0.014	0.0	-0.7	87.0	87.0	0.00
L_MR6_GMT59	0.007	0.004	-0.007	-0.005	0.0	-0.7	87.0	87.0	0.00
L_MR6_GMT6	0.002	0.000	-0.002	-0.001	0.0	-0.8	89.8	89.8	0.00
L_MR6_GMT61	0.018	0.011	-0.018	-0.011	0.0	-0.7	87.0	87.0	0.00
L_MR6_GMT65	2.438	1.400	-2.433	-1.396	5.5	3.6	87.0	86.8	0.21
L_MR6_GMT66	2.405	1.378	-2.400	-1.375	5.4	3.5	86.8	86.5	0.21
L_MR6_GMT67	0.002	0.001	-0.002	-0.002	0.0	-0.7	86.5	86.5	0.00
L_MR6_GMT69	2.397	1.374	-2.392	-1.371	5.3	3.5	86.5	86.3	0.21
L_MR6_GMT70	2.366	1.354	-2.363	-1.352	3.9	2.6	86.3	86.2	0.15

Branch ID	From-To Bus Flow MW	From-To Bus Flow Mvar	To-From Bus Flow MW	To-From Bus Flow Mvar	Losses kW	Losses kvar	% Bus Voltage From	% Bus Voltage To	Vd % Drop in Vmag
L_MR6_GMT74	-0.016	-0.009	0.016	0.008	0.0	-0.7	86.2	86.2	0.00
L_MR6_GMT75	-0.001	-0.001	0.001	0.000	0.0	-0.7	86.2	86.2	0.00
L_MR6_GMT76	0.016	0.009	-0.016	-0.010	0.0	-0.7	86.2	86.2	0.00
L_MR6_GMT77	2.346	1.343	-2.307	-1.318	38.7	25.2	86.2	84.7	1.52
L_MR6_GMT9	2.894	1.689	-2.890	-1.685	4.4	3.6	89.8	89.6	0.16
LM.1	-0.809	-0.458	0.809	0.440	0.2	-18.2	98.6	98.7	0.02
LM.2	1.243	0.656	-1.243	-0.675	0.4	-18.1	98.7	98.7	0.03
LM.3	-3.977	-2.529	3.982	2.515	4.7	-13.9	94.6	94.7	0.11
LM.4	-0.434	-0.253	0.434	0.235	0.0	-18.3	98.6	98.7	0.01
LM.5	3.987	2.501	-3.982	-2.515	4.7	-13.9	94.8	94.7	0.11
LMT.1	-1.564	-0.944	1.565	0.931	0.9	-12.9	84.5	84.6	0.05
LMT.2	-0.740	-0.413	0.741	0.400	0.2	-13.4	84.6	84.6	0.02
LO_1	-1.416	-0.854	1.417	0.840	0.7	-13.6	86.2	86.2	0.04
MR.1	-1.845	-1.129	1.845	1.109	0.8	-19.5	103.1	103.2	0.05
MR.3	-3.987	-2.501	4.329	2.732	342.2	230.6	94.8	103.2	8.31
MR.4	-5.111	-3.135	5.117	3.120	6.5	-15.9	103.0	103.2	0.13
MR.6	-3.887	-2.510	3.890	2.493	3.9	-17.6	103.1	103.2	0.10
					1597.6	2474.9			

* This Transmission Line includes Series Capacitor.

Alert Summary Report

	% Alert Settings	
	Critical	Marginal
Loading		
Bus	100.0	95.0
Cable / Busway	100.0	95.0
Reactor	100.0	95.0
Line	100.0	95.0
Transformer	100.0	95.0
Panel	100.0	95.0
Protective Device	100.0	95.0
Generator	100.0	95.0
Inverter/Charger	100.0	95.0
Bus Voltage		
OverVoltage	105.0	102.0
UnderVoltage	95.0	98.0
Generator Excitation		
OverExcited (Q Max.)	100.0	95.0
UnderExcited (Q Min.)	100.0	

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_AG2_GK7	Bus	Under Voltage	20.000	kV	18.969	94.8	3-Phase
B_LM3	Bus	Under Voltage	20.000	kV	18.924	94.6	3-Phase
B_LMT1_GMT1	Bus	Under Voltage	20.000	kV	16.897	84.5	3-Phase
B_LMT1_GMT100	Bus	Under Voltage	20.000	kV	16.796	84.0	3-Phase
B_LMT1_GMT101	Bus	Under Voltage	20.000	kV	16.796	84.0	3-Phase
B_LMT1_GMT102	Bus	Under Voltage	20.000	kV	16.798	84.0	3-Phase
B_LMT1_GMT103	Bus	Under Voltage	20.000	kV	16.800	84.0	3-Phase
B_LMT1_GMT107	Bus	Under Voltage	0.400	kV	0.321	80.4	3-Phase
B_LMT1_GMT108	Bus	Under Voltage	20.000	kV	16.764	83.8	3-Phase
B_LMT1_GMT109	Bus	Under Voltage	20.000	kV	16.767	83.8	3-Phase
B_LMT1_GMT110	Bus	Under Voltage	20.000	kV	16.735	83.7	3-Phase
B_LMT1_GMT116	Bus	Under Voltage	20.000	kV	16.717	83.6	3-Phase
B_LMT1_GMT117	Bus	Under Voltage	0.400	kV	0.325	81.2	3-Phase
B_LMT1_GMT118	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT119	Bus	Under Voltage	20.000	kV	16.713	83.6	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT120	Bus	Under Voltage	20.000	kV	16.714	83.6	3-Phase
B_LMT1_GMT121	Bus	Under Voltage	20.000	kV	16.720	83.6	3-Phase
B_LMT1_GMT125	Bus	Under Voltage	0.400	kV	0.316	78.9	3-Phase
B_LMT1_GMT126	Bus	Under Voltage	20.000	kV	16.708	83.5	3-Phase
B_LMT1_GMT127	Bus	Under Voltage	20.000	kV	16.709	83.5	3-Phase
B_LMT1_GMT128	Bus	Under Voltage	0.400	kV	0.332	83.1	3-Phase
B_LMT1_GMT129	Bus	Under Voltage	20.000	kV	16.699	83.5	3-Phase
B_LMT1_GMT130	Bus	Under Voltage	20.000	kV	16.699	83.5	3-Phase
B_LMT1_GMT137	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
B_LMT1_GMT138	Bus	Under Voltage	20.000	kV	16.689	83.4	3-Phase
B_LMT1_GMT139	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
B_LMT1_GMT140	Bus	Under Voltage	20.000	kV	16.681	83.4	3-Phase
B_LMT1_GMT141	Bus	Under Voltage	20.000	kV	16.681	83.4	3-Phase
B_LMT1_GMT142	Bus	Under Voltage	20.000	kV	16.690	83.4	3-Phase
B_LMT1_GMT146	Bus	Under Voltage	0.400	kV	0.321	80.3	3-Phase
B_LMT1_GMT147	Bus	Under Voltage	20.000	kV	16.671	83.4	3-Phase
B_LMT1_GMT148	Bus	Under Voltage	20.000	kV	16.673	83.4	3-Phase
B_LMT1_GMT152	Bus	Under Voltage	20.000	kV	16.664	83.3	3-Phase
B_LMT1_GMT153	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT1_GMT154	Bus	Under Voltage	20.000	kV	16.662	83.3	3-Phase
B_LMT1_GMT155	Bus	Under Voltage	20.000	kV	16.660	83.3	3-Phase
B_LMT1_GMT156	Bus	Under Voltage	0.400	kV	0.323	80.7	3-Phase
B_LMT1_GMT157	Bus	Under Voltage	20.000	kV	16.667	83.3	3-Phase
B_LMT1_GMT16	Bus	Under Voltage	0.400	kV	0.334	83.6	3-Phase
B_LMT1_GMT162	Bus	Under Voltage	0.400	kV	0.329	82.2	3-Phase
B_LMT1_GMT163	Bus	Under Voltage	20.000	kV	16.659	83.3	3-Phase
B_LMT1_GMT164	Bus	Under Voltage	20.000	kV	16.659	83.3	3-Phase
B_LMT1_GMT165	Bus	Under Voltage	0.400	kV	0.327	81.6	3-Phase
B_LMT1_GMT169	Bus	Under Voltage	0.400	kV	0.331	82.8	3-Phase
B_LMT1_GMT17	Bus	Under Voltage	20.000	kV	16.884	84.4	3-Phase
B_LMT1_GMT170	Bus	Under Voltage	20.000	kV	16.663	83.3	3-Phase
B_LMT1_GMT171	Bus	Under Voltage	20.000	kV	16.663	83.3	3-Phase
B_LMT1_GMT179	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
B_LMT1_GMT18	Bus	Under Voltage	0.400	kV	0.334	83.5	3-Phase
B_LMT1_GMT180	Bus	Under Voltage	20.000	kV	16.658	83.3	3-Phase
B_LMT1_GMT181	Bus	Under Voltage	20.000	kV	16.658	83.3	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT182	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT1_GMT183	Bus	Under Voltage	20.000	kV	16.660	83.3	3-Phase
B_LMT1_GMT187	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT188	Bus	Under Voltage	20.000	kV	16.656	83.3	3-Phase
B_LMT1_GMT189	Bus	Under Voltage	20.000	kV	16.658	83.3	3-Phase
B_LMT1_GMT19	Bus	Under Voltage	20.000	kV	16.877	84.4	3-Phase
B_LMT1_GMT190	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT1_GMT191	Bus	Under Voltage	20.000	kV	16.657	83.3	3-Phase
B_LMT1_GMT192	Bus	Under Voltage	20.000	kV	16.657	83.3	3-Phase
B_LMT1_GMT193	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT194	Bus	Under Voltage	20.000	kV	16.656	83.3	3-Phase
B_LMT1_GMT195	Bus	Under Voltage	20.000	kV	16.657	83.3	3-Phase
B_LMT1_GMT199	Bus	Under Voltage	20.000	kV	16.733	83.7	3-Phase
B_LMT1_GMT2	Bus	Under Voltage	0.400	kV	0.323	80.8	3-Phase
B_LMT1_GMT20	Bus	Under Voltage	20.000	kV	16.877	84.4	3-Phase
B_LMT1_GMT200	Bus	Under Voltage	0.400	kV	0.325	81.4	3-Phase
B_LMT1_GMT201	Bus	Under Voltage	20.000	kV	16.730	83.7	3-Phase
B_LMT1_GMT202	Bus	Under Voltage	20.000	kV	16.730	83.6	3-Phase
B_LMT1_GMT203	Bus	Under Voltage	0.400	kV	0.322	80.6	3-Phase
B_LMT1_GMT207	Bus	Under Voltage	0.400	kV	0.325	81.3	3-Phase
B_LMT1_GMT208	Bus	Under Voltage	20.000	kV	16.719	83.6	3-Phase
B_LMT1_GMT209	Bus	Under Voltage	20.000	kV	16.721	83.6	3-Phase
B_LMT1_GMT21	Bus	Under Voltage	20.000	kV	16.884	84.4	3-Phase
B_LMT1_GMT213	Bus	Under Voltage	0.400	kV	0.323	80.6	3-Phase
B_LMT1_GMT215	Bus	Under Voltage	20.000	kV	16.708	83.5	3-Phase
B_LMT1_GMT218	Bus	Under Voltage	0.400	kV	0.324	80.9	3-Phase
B_LMT1_GMT219	Bus	Under Voltage	20.000	kV	16.697	83.5	3-Phase
B_LMT1_GMT223	Bus	Under Voltage	0.400	kV	0.319	79.8	3-Phase
B_LMT1_GMT224	Bus	Under Voltage	20.000	kV	16.686	83.4	3-Phase
B_LMT1_GMT225	Bus	Under Voltage	20.000	kV	16.688	83.4	3-Phase
B_LMT1_GMT226	Bus	Under Voltage	0.400	kV	0.322	80.6	3-Phase
B_LMT1_GMT227	Bus	Under Voltage	20.000	kV	16.678	83.4	3-Phase
B_LMT1_GMT228	Bus	Under Voltage	20.000	kV	16.679	83.4	3-Phase
B_LMT1_GMT235	Bus	Under Voltage	0.400	kV	0.325	81.3	3-Phase
B_LMT1_GMT236	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
B_LMT1_GMT237	Bus	Under Voltage	20.000	kV	16.667	83.3	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT238	Bus	Under Voltage	20.000	kV	16.673	83.4	3-Phase
B_LMT1_GMT243	Bus	Under Voltage	0.400	kV	0.310	77.6	3-Phase
B_LMT1_GMT244	Bus	Under Voltage	20.000	kV	16.661	83.3	3-Phase
B_LMT1_GMT245	Bus	Under Voltage	20.000	kV	16.663	83.3	3-Phase
B_LMT1_GMT246	Bus	Under Voltage	0.400	kV	0.306	76.4	3-Phase
B_LMT1_GMT25	Bus	Under Voltage	0.400	kV	0.336	84.0	3-Phase
B_LMT1_GMT250	Bus	Under Voltage	0.400	kV	0.321	80.3	3-Phase
B_LMT1_GMT251	Bus	Under Voltage	20.000	kV	16.660	83.3	3-Phase
B_LMT1_GMT252	Bus	Under Voltage	20.000	kV	16.660	83.3	3-Phase
B_LMT1_GMT253	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT1_GMT254	Bus	Under Voltage	20.000	kV	16.660	83.3	3-Phase
B_LMT1_GMT255	Bus	Under Voltage	20.000	kV	16.660	83.3	3-Phase
B_LMT1_GMT27	Bus	Under Voltage	20.000	kV	16.871	84.4	3-Phase
B_LMT1_GMT28	Bus	Under Voltage	20.000	kV	16.870	84.3	3-Phase
B_LMT1_GMT3	Bus	Under Voltage	20.000	kV	16.899	84.5	3-Phase
B_LMT1_GMT32	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT1_GMT33	Bus	Under Voltage	20.000	kV	16.868	84.3	3-Phase
B_LMT1_GMT34	Bus	Under Voltage	20.000	kV	16.869	84.3	3-Phase
B_LMT1_GMT35	Bus	Under Voltage	20.000	kV	16.865	84.3	3-Phase
B_LMT1_GMT39	Bus	Under Voltage	0.400	kV	0.334	83.6	3-Phase
B_LMT1_GMT41	Bus	Under Voltage	20.000	kV	16.861	84.3	3-Phase
B_LMT1_GMT42	Bus	Under Voltage	20.000	kV	16.863	84.3	3-Phase
B_LMT1_GMT45	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
B_LMT1_GMT46	Bus	Under Voltage	20.000	kV	16.859	84.3	3-Phase
B_LMT1_GMT47	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT1_GMT48	Bus	Under Voltage	20.000	kV	16.858	84.3	3-Phase
B_LMT1_GMT55	Bus	Under Voltage	0.400	kV	0.336	84.0	3-Phase
B_LMT1_GMT56	Bus	Under Voltage	0.400	kV	0.327	81.9	3-Phase
B_LMT1_GMT57	Bus	Under Voltage	0.400	kV	0.331	82.8	3-Phase
B_LMT1_GMT58	Bus	Under Voltage	20.000	kV	16.852	84.3	3-Phase
B_LMT1_GMT59	Bus	Under Voltage	20.000	kV	16.855	84.3	3-Phase
B_LMT1_GMT60	Bus	Under Voltage	20.000	kV	16.858	84.3	3-Phase
B_LMT1_GMT61	Bus	Under Voltage	20.000	kV	16.862	84.3	3-Phase
B_LMT1_GMT66	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
B_LMT1_GMT67	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
B_LMT1_GMT68	Bus	Under Voltage	20.000	kV	16.850	84.3	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT1_GMT69	Bus	Under Voltage	20.000	kV	16.851	84.3	3-Phase
B_LMT1_GMT7	Bus	Under Voltage	0.400	kV	0.326	81.4	3-Phase
B_LMT1_GMT75	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT1_GMT76	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
B_LMT1_GMT77	Bus	Under Voltage	20.000	kV	16.867	84.3	3-Phase
B_LMT1_GMT78	Bus	Under Voltage	20.000	kV	16.867	84.3	3-Phase
B_LMT1_GMT79	Bus	Under Voltage	20.000	kV	16.869	84.3	3-Phase
B_LMT1_GMT8	Bus	Under Voltage	20.000	kV	16.890	84.5	3-Phase
B_LMT1_GMT80	Bus	Under Voltage	20.000	kV	16.871	84.4	3-Phase
B_LMT1_GMT84	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT1_GMT85	Bus	Under Voltage	20.000	kV	16.864	84.3	3-Phase
B_LMT1_GMT86	Bus	Under Voltage	20.000	kV	16.866	84.3	3-Phase
B_LMT1_GMT9	Bus	Under Voltage	20.000	kV	16.891	84.5	3-Phase
B_LMT1_GMT90	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT1_GMT91	Bus	Under Voltage	20.000	kV	16.835	84.2	3-Phase
B_LMT1_GMT92	Bus	Under Voltage	20.000	kV	16.835	84.2	3-Phase
B_LMT1_GMT98	Bus	Under Voltage	0.400	kV	0.324	81.0	3-Phase
B_LMT1_GMT99	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
B_LMT2_1	Bus	Under Voltage	20.000	kV	16.915	84.6	3-Phase
B_LMT2_GMT1	Bus	Under Voltage	20.000	kV	16.893	84.5	3-Phase
B_LMT2_GMT10	Bus	Under Voltage	0.400	kV	0.333	83.3	3-Phase
B_LMT2_GMT108	Bus	Under Voltage	0.400	kV	0.328	82.1	3-Phase
B_LMT2_GMT109	Bus	Under Voltage	20.000	kV	16.570	82.9	3-Phase
B_LMT2_GMT11	Bus	Under Voltage	20.000	kV	16.828	84.1	3-Phase
B_LMT2_GMT110	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
B_LMT2_GMT111	Bus	Under Voltage	20.000	kV	16.569	82.8	3-Phase
B_LMT2_GMT112	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT113	Bus	Under Voltage	20.000	kV	16.568	82.8	3-Phase
B_LMT2_GMT114	Bus	Under Voltage	20.000	kV	16.568	82.8	3-Phase
B_LMT2_GMT115	Bus	Under Voltage	20.000	kV	16.569	82.8	3-Phase
B_LMT2_GMT116	Bus	Under Voltage	20.000	kV	16.570	82.9	3-Phase
B_LMT2_GMT117	Bus	Under Voltage	20.000	kV	16.572	82.9	3-Phase
B_LMT2_GMT118	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT119	Bus	Under Voltage	20.000	kV	16.572	82.9	3-Phase
B_LMT2_GMT12	Bus	Under Voltage	20.000	kV	16.828	84.1	3-Phase
B_LMT2_GMT123	Bus	Under Voltage	0.400	kV	0.320	80.0	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT124	Bus	Under Voltage	20.000	kV	16.567	82.8	3-Phase
B_LMT2_GMT125	Bus	Under Voltage	20.000	kV	16.568	82.8	3-Phase
B_LMT2_GMT130	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
B_LMT2_GMT131	Bus	Under Voltage	20.000	kV	16.577	82.9	3-Phase
B_LMT2_GMT132	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
B_LMT2_GMT133	Bus	Under Voltage	20.000	kV	16.568	82.8	3-Phase
B_LMT2_GMT145	Bus	Under Voltage	20.000	kV	16.559	82.8	3-Phase
B_LMT2_GMT146	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
B_LMT2_GMT147	Bus	Under Voltage	20.000	kV	16.558	82.8	3-Phase
B_LMT2_GMT152	Bus	Under Voltage	0.400	kV	0.326	81.4	3-Phase
B_LMT2_GMT153	Bus	Under Voltage	20.000	kV	16.550	82.8	3-Phase
B_LMT2_GMT154	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
B_LMT2_GMT155	Bus	Under Voltage	20.000	kV	16.542	82.7	3-Phase
B_LMT2_GMT158	Bus	Under Voltage	0.400	kV	0.329	82.2	3-Phase
B_LMT2_GMT159	Bus	Under Voltage	20.000	kV	16.534	82.7	3-Phase
B_LMT2_GMT16	Bus	Under Voltage	20.000	kV	16.807	84.0	3-Phase
B_LMT2_GMT160	Bus	Under Voltage	20.000	kV	16.526	82.6	3-Phase
B_LMT2_GMT161	Bus	Under Voltage	20.000	kV	16.526	82.6	3-Phase
B_LMT2_GMT165	Bus	Under Voltage	0.400	kV	0.327	81.7	3-Phase
B_LMT2_GMT166	Bus	Under Voltage	20.000	kV	16.510	82.5	3-Phase
B_LMT2_GMT167	Bus	Under Voltage	20.000	kV	16.510	82.6	3-Phase
B_LMT2_GMT168	Bus	Under Voltage	20.000	kV	16.518	82.6	3-Phase
B_LMT2_GMT17	Bus	Under Voltage	0.400	kV	0.323	80.7	3-Phase
B_LMT2_GMT175	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT2_GMT176	Bus	Under Voltage	20.000	kV	16.502	82.5	3-Phase
B_LMT2_GMT177	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
B_LMT2_GMT178	Bus	Under Voltage	20.000	kV	16.502	82.5	3-Phase
B_LMT2_GMT179	Bus	Under Voltage	20.000	kV	16.502	82.5	3-Phase
B_LMT2_GMT18	Bus	Under Voltage	20.000	kV	16.806	84.0	3-Phase
B_LMT2_GMT180	Bus	Under Voltage	20.000	kV	16.502	82.5	3-Phase
B_LMT2_GMT181	Bus	Under Voltage	20.000	kV	16.502	82.5	3-Phase
B_LMT2_GMT188	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
B_LMT2_GMT189	Bus	Under Voltage	20.000	kV	16.495	82.5	3-Phase
B_LMT2_GMT190	Bus	Under Voltage	0.400	kV	0.318	79.5	3-Phase
B_LMT2_GMT191	Bus	Under Voltage	20.000	kV	16.487	82.4	3-Phase
B_LMT2_GMT192	Bus	Under Voltage	20.000	kV	16.488	82.4	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT193	Bus	Under Voltage	20.000	kV	16.495	82.5	3-Phase
B_LMT2_GMT194	Bus	Under Voltage	0.400	kV	0.329	82.2	3-Phase
B_LMT2_GMT195	Bus	Under Voltage	20.000	kV	16.482	82.4	3-Phase
B_LMT2_GMT196	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT197	Bus	Under Voltage	20.000	kV	16.476	82.4	3-Phase
B_LMT2_GMT198	Bus	Under Voltage	20.000	kV	16.476	82.4	3-Phase
B_LMT2_GMT199	Bus	Under Voltage	20.000	kV	16.482	82.4	3-Phase
B_LMT2_GMT2	Bus	Under Voltage	0.400	kV	0.327	81.8	3-Phase
B_LMT2_GMT203	Bus	Under Voltage	0.400	kV	0.323	80.7	3-Phase
B_LMT2_GMT204	Bus	Under Voltage	20.000	kV	16.469	82.3	3-Phase
B_LMT2_GMT205	Bus	Under Voltage	20.000	kV	16.470	82.3	3-Phase
B_LMT2_GMT206	Bus	Under Voltage	0.400	kV	0.320	79.9	3-Phase
B_LMT2_GMT207	Bus	Under Voltage	20.000	kV	16.464	82.3	3-Phase
B_LMT2_GMT208	Bus	Under Voltage	20.000	kV	16.465	82.3	3-Phase
B_LMT2_GMT215	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
B_LMT2_GMT216	Bus	Under Voltage	20.000	kV	16.457	82.3	3-Phase
B_LMT2_GMT217	Bus	Under Voltage	20.000	kV	16.458	82.3	3-Phase
B_LMT2_GMT218	Bus	Under Voltage	20.000	kV	16.459	82.3	3-Phase
B_LMT2_GMT219	Bus	Under Voltage	0.400	kV	0.319	79.7	3-Phase
B_LMT2_GMT220	Bus	Under Voltage	20.000	kV	16.458	82.3	3-Phase
B_LMT2_GMT221	Bus	Under Voltage	20.000	kV	16.460	82.3	3-Phase
B_LMT2_GMT228	Bus	Under Voltage	0.400	kV	0.320	79.9	3-Phase
B_LMT2_GMT229	Bus	Under Voltage	20.000	kV	16.459	82.3	3-Phase
B_LMT2_GMT23	Bus	Under Voltage	0.400	kV	0.324	81.1	3-Phase
B_LMT2_GMT230	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT231	Bus	Under Voltage	20.000	kV	16.459	82.3	3-Phase
B_LMT2_GMT232	Bus	Under Voltage	20.000	kV	16.460	82.3	3-Phase
B_LMT2_GMT233	Bus	Under Voltage	20.000	kV	16.460	82.3	3-Phase
B_LMT2_GMT24	Bus	Under Voltage	0.400	kV	0.326	81.5	3-Phase
B_LMT2_GMT243	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT244	Bus	Under Voltage	20.000	kV	16.458	82.3	3-Phase
B_LMT2_GMT245	Bus	Under Voltage	0.400	kV	0.324	81.0	3-Phase
B_LMT2_GMT246	Bus	Under Voltage	20.000	kV	16.456	82.3	3-Phase
B_LMT2_GMT247	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
B_LMT2_GMT248	Bus	Under Voltage	20.000	kV	16.455	82.3	3-Phase
B_LMT2_GMT249	Bus	Under Voltage	20.000	kV	16.455	82.3	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT25	Bus	Under Voltage	20.000	kV	16.770	83.8	3-Phase
B_LMT2_GMT250	Bus	Under Voltage	20.000	kV	16.456	82.3	3-Phase
B_LMT2_GMT251	Bus	Under Voltage	20.000	kV	16.458	82.3	3-Phase
B_LMT2_GMT258	Bus	Under Voltage	0.400	kV	0.326	81.6	3-Phase
B_LMT2_GMT259	Bus	Under Voltage	20.000	kV	16.454	82.3	3-Phase
B_LMT2_GMT26	Bus	Under Voltage	20.000	kV	16.788	83.9	3-Phase
B_LMT2_GMT260	Bus	Under Voltage	0.400	kV	0.328	82.1	3-Phase
B_LMT2_GMT261	Bus	Under Voltage	0.400	kV	0.317	79.4	3-Phase
B_LMT2_GMT262	Bus	Under Voltage	20.000	kV	16.452	82.3	3-Phase
B_LMT2_GMT263	Bus	Under Voltage	20.000	kV	16.453	82.3	3-Phase
B_LMT2_GMT27	Bus	Under Voltage	0.400	kV	0.320	80.1	3-Phase
B_LMT2_GMT28	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
B_LMT2_GMT29	Bus	Under Voltage	20.000	kV	16.737	83.7	3-Phase
B_LMT2_GMT3	Bus	Under Voltage	20.000	kV	16.870	84.3	3-Phase
B_LMT2_GMT30	Bus	Under Voltage	20.000	kV	16.753	83.8	3-Phase
B_LMT2_GMT33	Bus	Under Voltage	0.400	kV	0.324	81.0	3-Phase
B_LMT2_GMT34	Bus	Under Voltage	20.000	kV	16.706	83.5	3-Phase
B_LMT2_GMT35	Bus	Under Voltage	20.000	kV	16.721	83.6	3-Phase
B_LMT2_GMT39	Bus	Under Voltage	20.000	kV	16.691	83.5	3-Phase
B_LMT2_GMT40	Bus	Under Voltage	0.400	kV	0.331	82.8	3-Phase
B_LMT2_GMT41	Bus	Under Voltage	20.000	kV	16.691	83.5	3-Phase
B_LMT2_GMT44	Bus	Under Voltage	0.400	kV	0.320	80.0	3-Phase
B_LMT2_GMT45	Bus	Under Voltage	20.000	kV	16.676	83.4	3-Phase
B_LMT2_GMT46	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
B_LMT2_GMT47	Bus	Under Voltage	20.000	kV	16.662	83.3	3-Phase
B_LMT2_GMT52	Bus	Under Voltage	0.400	kV	0.322	80.5	3-Phase
B_LMT2_GMT53	Bus	Under Voltage	0.400	kV	0.321	80.1	3-Phase
B_LMT2_GMT54	Bus	Under Voltage	20.000	kV	16.635	83.2	3-Phase
B_LMT2_GMT55	Bus	Under Voltage	20.000	kV	16.648	83.2	3-Phase
B_LMT2_GMT59	Bus	Under Voltage	20.000	kV	16.623	83.1	3-Phase
B_LMT2_GMT6	Bus	Under Voltage	0.400	kV	0.328	81.9	3-Phase
B_LMT2_GMT60	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
B_LMT2_GMT61	Bus	Under Voltage	20.000	kV	16.623	83.1	3-Phase
B_LMT2_GMT66	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
B_LMT2_GMT67	Bus	Under Voltage	20.000	kV	16.611	83.1	3-Phase
B_LMT2_GMT68	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_LMT2_GMT69	Bus	Under Voltage	20.000	kV	16.598	83.0	3-Phase
B_LMT2_GMT7	Bus	Under Voltage	20.000	kV	16.848	84.2	3-Phase
B_LMT2_GMT70	Bus	Under Voltage	20.000	kV	16.586	82.9	3-Phase
B_LMT2_GMT71	Bus	Under Voltage	20.000	kV	16.583	82.9	3-Phase
B_LMT2_GMT75	Bus	Under Voltage	20.000	kV	16.581	82.9	3-Phase
B_LMT2_GMT76	Bus	Under Voltage	0.400	kV	0.328	82.1	3-Phase
B_LMT2_GMT77	Bus	Under Voltage	20.000	kV	16.580	82.9	3-Phase
B_LMT2_GMT81	Bus	Under Voltage	20.000	kV	16.578	82.9	3-Phase
B_LMT2_GMT82	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
B_LMT2_GMT83	Bus	Under Voltage	20.000	kV	16.578	82.9	3-Phase
B_LMT2_GMT90	Bus	Under Voltage	0.400	kV	0.320	80.0	3-Phase
B_LMT2_GMT91	Bus	Under Voltage	20.000	kV	16.572	82.9	3-Phase
B_LMT2_GMT92	Bus	Under Voltage	20.000	kV	16.573	82.9	3-Phase
B_LMT2_GMT93	Bus	Under Voltage	20.000	kV	16.575	82.9	3-Phase
B_LMT2_GMT94	Bus	Under Voltage	0.400	kV	0.328	82.0	3-Phase
B_LMT2_GMT95	Bus	Under Voltage	20.000	kV	16.575	82.9	3-Phase
B_MR04_GM_11	Bus	Under Voltage	0.400	kV	0.363	90.8	3-Phase
B_MR04_GM_13	Bus	Under Voltage	0.400	kV	0.360	89.9	3-Phase
B_MR04_GM_14	Bus	Under Voltage	0.400	kV	0.370	92.6	3-Phase
B_MR04_GM_15	Bus	Under Voltage	0.400	kV	0.354	88.5	3-Phase
B_MR04_GM_19	Bus	Under Voltage	0.400	kV	0.379	94.8	3-Phase
B_MR04_GM_20	Bus	Under Voltage	0.400	kV	0.373	93.4	3-Phase
B_MR04_GM_21	Bus	Under Voltage	0.400	kV	0.379	94.7	3-Phase
B_MR04_GM_23	Bus	Under Voltage	0.400	kV	0.352	88.1	3-Phase
B_MR04_GM_24	Bus	Under Voltage	0.400	kV	0.380	95.0	3-Phase
B_MR04_GM_27	Bus	Under Voltage	0.400	kV	0.376	94.0	3-Phase
B_MR04_GM_30	Bus	Under Voltage	0.400	kV	0.377	94.2	3-Phase
B_MR04_GM_35	Bus	Under Voltage	0.400	kV	0.370	92.4	3-Phase
B_MR04_GM_9	Bus	Under Voltage	0.400	kV	0.380	95.0	3-Phase
B_MR6_GMP2	Bus	Under Voltage	20.000	kV	18.291	91.5	3-Phase
B_MR6_GMP31	Bus	Under Voltage	0.400	kV	0.380	94.9	3-Phase
B_MR6_GMP35	Bus	Under Voltage	0.400	kV	0.378	94.5	3-Phase
B_MR6_GMP64	Bus	Under Voltage	0.400	kV	0.375	93.9	3-Phase
B_MR6_GMP69	Bus	Under Voltage	0.400	kV	0.373	93.3	3-Phase
B_MR6_GMP71	Bus	Under Voltage	0.400	kV	0.376	94.0	3-Phase
B_MR6_GMP72	Bus	Under Voltage	20.000	kV	18.949	94.7	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR6_GMP73	Bus	Under Voltage	20.000	kV	18.949	94.7	3-Phase
B_MR6_GMP76	Bus	Under Voltage	0.400	kV	0.367	91.8	3-Phase
B_MR6_GMP77	Bus	Under Voltage	20.000	kV	18.781	93.9	3-Phase
B_MR6_GMP78	Bus	Under Voltage	0.400	kV	0.362	90.4	3-Phase
B_MR6_GMP79	Bus	Under Voltage	20.000	kV	18.616	93.1	3-Phase
B_MR6_GMP80	Bus	Under Voltage	0.400	kV	0.358	89.6	3-Phase
B_MR6_GMP81	Bus	Under Voltage	20.000	kV	18.453	92.3	3-Phase
B_MR6_GMP82	Bus	Under Voltage	20.000	kV	18.016	90.1	3-Phase
B_MR6_GMT1	Bus	Under Voltage	0.400	kV	0.351	87.7	3-Phase
B_MR6_GMT102	Bus	Under Voltage	0.400	kV	0.341	85.2	3-Phase
B_MR6_GMT103	Bus	Under Voltage	20.000	kV	17.391	87.0	3-Phase
B_MR6_GMT109	Bus	Under Voltage	0.400	kV	0.345	86.3	3-Phase
B_MR6_GMT110	Bus	Under Voltage	0.400	kV	0.336	84.0	3-Phase
B_MR6_GMT111	Bus	Under Voltage	20.000	kV	17.351	86.8	3-Phase
B_MR6_GMT112	Bus	Under Voltage	20.000	kV	17.309	86.5	3-Phase
B_MR6_GMT113	Bus	Under Voltage	20.000	kV	17.309	86.5	3-Phase
B_MR6_GMT116	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
B_MR6_GMT117	Bus	Under Voltage	20.000	kV	17.268	86.3	3-Phase
B_MR6_GMT123	Bus	Under Voltage	0.400	kV	0.344	86.0	3-Phase
B_MR6_GMT124	Bus	Under Voltage	20.000	kV	17.237	86.2	3-Phase
B_MR6_GMT125	Bus	Under Voltage	20.000	kV	17.237	86.2	3-Phase
B_MR6_GMT126	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
B_MR6_GMT127	Bus	Under Voltage	20.000	kV	17.237	86.2	3-Phase
B_MR6_GMT128	Bus	Under Voltage	20.000	kV	17.238	86.2	3-Phase
B_MR6_GMT13	Bus	Under Voltage	20.000	kV	17.922	89.6	3-Phase
B_MR6_GMT130	Bus	Under Voltage	20.000	kV	16.910	84.5	3-Phase
B_MR6_GMT14	Bus	Under Voltage	0.400	kV	0.352	88.0	3-Phase
B_MR6_GMT18	Bus	Under Voltage	0.400	kV	0.351	87.9	3-Phase
B_MR6_GMT19	Bus	Under Voltage	20.000	kV	17.891	89.5	3-Phase
B_MR6_GMT2	Bus	Under Voltage	20.000	kV	17.984	89.9	3-Phase
B_MR6_GMT20	Bus	Under Voltage	0.400	kV	0.357	89.2	3-Phase
B_MR6_GMT21	Bus	Under Voltage	20.000	kV	17.860	89.3	3-Phase
B_MR6_GMT25	Bus	Under Voltage	20.000	kV	17.829	89.1	3-Phase
B_MR6_GMT26	Bus	Under Voltage	0.400	kV	0.356	88.9	3-Phase
B_MR6_GMT27	Bus	Under Voltage	20.000	kV	17.829	89.1	3-Phase
B_MR6_GMT3	Bus	Under Voltage	20.000	kV	17.983	89.9	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR6_GMT30	Bus	Under Voltage	20.000	kV	17.799	89.0	3-Phase
B_MR6_GMT31	Bus	Under Voltage	0.400	kV	0.353	88.2	3-Phase
B_MR6_GMT35	Bus	Under Voltage	20.000	kV	17.768	88.8	3-Phase
B_MR6_GMT36	Bus	Under Voltage	0.400	kV	0.347	86.7	3-Phase
B_MR6_GMT37	Bus	Under Voltage	20.000	kV	17.767	88.8	3-Phase
B_MR6_GMT38	Bus	Under Voltage	20.000	kV	17.765	88.8	3-Phase
B_MR6_GMT44	Bus	Under Voltage	0.400	kV	0.351	87.9	3-Phase
B_MR6_GMT45	Bus	Under Voltage	0.400	kV	0.338	84.6	3-Phase
B_MR6_GMT47	Bus	Under Voltage	20.000	kV	17.765	88.8	3-Phase
B_MR6_GMT48	Bus	Under Voltage	20.000	kV	17.765	88.8	3-Phase
B_MR6_GMT52	Bus	Under Voltage	20.000	kV	17.762	88.8	3-Phase
B_MR6_GMT53	Bus	Under Voltage	0.400	kV	0.345	86.2	3-Phase
B_MR6_GMT54	Bus	Under Voltage	20.000	kV	17.762	88.8	3-Phase
B_MR6_GMT55	Bus	Under Voltage	20.000	kV	17.764	88.8	3-Phase
B_MR6_GMT58	Bus	Under Voltage	0.400	kV	0.349	87.3	3-Phase
B_MR6_GMT59	Bus	Under Voltage	20.000	kV	17.762	88.8	3-Phase
B_MR6_GMT60	Bus	Under Voltage	0.400	kV	0.353	88.3	3-Phase
B_MR6_GMT61	Bus	Under Voltage	20.000	kV	17.761	88.8	3-Phase
B_MR6_GMT62	Bus	Under Voltage	0.400	kV	0.352	88.1	3-Phase
B_MR6_GMT63	Bus	Under Voltage	20.000	kV	17.738	88.7	3-Phase
B_MR6_GMT64	Bus	Under Voltage	0.400	kV	0.351	87.7	3-Phase
B_MR6_GMT65	Bus	Under Voltage	20.000	kV	17.709	88.5	3-Phase
B_MR6_GMT7	Bus	Under Voltage	20.000	kV	17.953	89.8	3-Phase
B_MR6_GMT70	Bus	Under Voltage	0.400	kV	0.347	86.7	3-Phase
B_MR6_GMT71	Bus	Under Voltage	0.400	kV	0.342	85.5	3-Phase
B_MR6_GMT72	Bus	Under Voltage	20.000	kV	17.650	88.2	3-Phase
B_MR6_GMT73	Bus	Under Voltage	20.000	kV	17.679	88.4	3-Phase
B_MR6_GMT74	Bus	Under Voltage	0.400	kV	0.342	85.5	3-Phase
B_MR6_GMT75	Bus	Under Voltage	0.400	kV	0.341	85.2	3-Phase
B_MR6_GMT76	Bus	Under Voltage	20.000	kV	17.592	88.0	3-Phase
B_MR6_GMT77	Bus	Under Voltage	20.000	kV	17.621	88.1	3-Phase
B_MR6_GMT8	Bus	Under Voltage	0.400	kV	0.358	89.5	3-Phase
B_MR6_GMT80	Bus	Under Voltage	0.400	kV	0.342	85.4	3-Phase
B_MR6_GMT81	Bus	Under Voltage	20.000	kV	17.563	87.8	3-Phase
B_MR6_GMT82	Bus	Under Voltage	0.400	kV	0.349	87.4	3-Phase
B_MR6_GMT83	Bus	Under Voltage	20.000	kV	17.520	87.6	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR6_GMT84	Bus	Under Voltage	20.000	kV	17.520	87.6	3-Phase
B_MR6_GMT87	Bus	Under Voltage	0.400	kV	0.341	85.3	3-Phase
B_MR6_GMT88	Bus	Under Voltage	20.000	kV	17.477	87.4	3-Phase
B_MR6_GMT9	Bus	Under Voltage	20.000	kV	17.953	89.8	3-Phase
B_MR6_GMT91	Bus	Under Voltage	0.400	kV	0.345	86.3	3-Phase
B_MR6_GMT92	Bus	Under Voltage	20.000	kV	17.434	87.2	3-Phase
B_MR6_GMT96	Bus	Under Voltage	0.400	kV	0.345	86.2	3-Phase
B_MR6_GMT97	Bus	Under Voltage	20.000	kV	17.392	87.0	3-Phase
B_MR6_GMT98	Bus	Under Voltage	20.000	kV	17.392	87.0	3-Phase
B_MR6_GMT99	Bus	Under Voltage	20.000	kV	17.391	87.0	3-Phase
Bus_LM1_12	Bus	Under Voltage	0.400	kV	0.378	94.4	3-Phase
Bus_LM1_128	Bus	Under Voltage	0.400	kV	0.379	94.7	3-Phase
Bus_LM1_189	Bus	Under Voltage	20.000	kV	17.772	88.9	3-Phase
Bus_LM1_190	Bus	Under Voltage	20.000	kV	17.766	88.8	3-Phase
Bus_LM1_191	Bus	Under Voltage	20.000	kV	17.768	88.8	3-Phase
Bus_LM1_193	Bus	Under Voltage	20.000	kV	17.769	88.8	3-Phase
Bus_LM1_195	Bus	Under Voltage	20.000	kV	17.760	88.8	3-Phase
Bus_LM1_196	Bus	Under Voltage	20.000	kV	17.752	88.8	3-Phase
Bus_LM1_197	Bus	Under Voltage	20.000	kV	17.744	88.7	3-Phase
Bus_LM1_198	Bus	Under Voltage	20.000	kV	17.743	88.7	3-Phase
Bus_LM1_20	Bus	Under Voltage	0.400	kV	0.371	92.8	3-Phase
Bus_LM1_200	Bus	Under Voltage	20.000	kV	17.738	88.7	3-Phase
Bus_LM1_202	Bus	Under Voltage	20.000	kV	17.733	88.7	3-Phase
Bus_LM1_203	Bus	Under Voltage	20.000	kV	17.728	88.6	3-Phase
Bus_LM1_204	Bus	Under Voltage	20.000	kV	17.728	88.6	3-Phase
Bus_LM1_209	Bus	Under Voltage	20.000	kV	17.724	88.6	3-Phase
Bus_LM1_210	Bus	Under Voltage	20.000	kV	17.725	88.6	3-Phase
Bus_LM1_211	Bus	Under Voltage	20.000	kV	17.726	88.6	3-Phase
Bus_LM1_212	Bus	Under Voltage	20.000	kV	17.727	88.6	3-Phase
Bus_LM1_215	Bus	Under Voltage	20.000	kV	17.793	89.0	3-Phase
Bus_LM1_217	Bus	Under Voltage	20.000	kV	17.764	88.8	3-Phase
Bus_LM1_218	Bus	Under Voltage	20.000	kV	17.736	88.7	3-Phase
Bus_LM1_219	Bus	Under Voltage	20.000	kV	17.708	88.5	3-Phase
Bus_LM1_220	Bus	Under Voltage	20.000	kV	17.681	88.4	3-Phase
Bus_LM1_221	Bus	Under Voltage	20.000	kV	17.654	88.3	3-Phase
Bus_LM1_222	Bus	Under Voltage	20.000	kV	17.627	88.1	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_224	Bus	Under Voltage	20.000	kV	17.601	88.0	3-Phase
Bus_LM1_226	Bus	Under Voltage	20.000	kV	17.575	87.9	3-Phase
Bus_LM1_227	Bus	Under Voltage	20.000	kV	17.549	87.7	3-Phase
Bus_LM1_228	Bus	Under Voltage	20.000	kV	17.524	87.6	3-Phase
Bus_LM1_229	Bus	Under Voltage	20.000	kV	17.499	87.5	3-Phase
Bus_LM1_230	Bus	Under Voltage	20.000	kV	17.498	87.5	3-Phase
Bus_LM1_231	Bus	Under Voltage	20.000	kV	17.498	87.5	3-Phase
Bus_LM1_232	Bus	Under Voltage	20.000	kV	17.475	87.4	3-Phase
Bus_LM1_233	Bus	Under Voltage	20.000	kV	17.451	87.3	3-Phase
Bus_LM1_236	Bus	Under Voltage	20.000	kV	17.404	87.0	3-Phase
Bus_LM1_237	Bus	Under Voltage	20.000	kV	17.428	87.1	3-Phase
Bus_LM1_238	Bus	Under Voltage	20.000	kV	17.359	86.8	3-Phase
Bus_LM1_239	Bus	Under Voltage	20.000	kV	17.382	86.9	3-Phase
Bus_LM1_240	Bus	Under Voltage	20.000	kV	17.315	86.6	3-Phase
Bus_LM1_241	Bus	Under Voltage	20.000	kV	17.337	86.7	3-Phase
Bus_LM1_242	Bus	Under Voltage	20.000	kV	17.291	86.5	3-Phase
Bus_LM1_243	Bus	Under Voltage	20.000	kV	17.293	86.5	3-Phase
Bus_LM1_244	Bus	Under Voltage	20.000	kV	17.272	86.4	3-Phase
Bus_LM1_245	Bus	Under Voltage	20.000	kV	17.291	86.5	3-Phase
Bus_LM1_249	Bus	Under Voltage	20.000	kV	17.252	86.3	3-Phase
Bus_LM1_251	Bus	Under Voltage	20.000	kV	17.234	86.2	3-Phase
Bus_LM1_253	Bus	Under Voltage	20.000	kV	17.213	86.1	3-Phase
Bus_LM1_254	Bus	Under Voltage	20.000	kV	17.192	86.0	3-Phase
Bus_LM1_255	Bus	Under Voltage	20.000	kV	17.172	85.9	3-Phase
Bus_LM1_258	Bus	Under Voltage	20.000	kV	17.132	85.7	3-Phase
Bus_LM1_259	Bus	Under Voltage	20.000	kV	17.151	85.8	3-Phase
Bus_LM1_264	Bus	Under Voltage	20.000	kV	17.055	85.3	3-Phase
Bus_LM1_265	Bus	Under Voltage	20.000	kV	17.074	85.4	3-Phase
Bus_LM1_266	Bus	Under Voltage	20.000	kV	17.093	85.5	3-Phase
Bus_LM1_267	Bus	Under Voltage	20.000	kV	17.112	85.6	3-Phase
Bus_LM1_270	Bus	Under Voltage	20.000	kV	17.054	85.3	3-Phase
Bus_LM1_271	Bus	Under Voltage	20.000	kV	17.053	85.3	3-Phase
Bus_LM1_274	Bus	Under Voltage	20.000	kV	17.015	85.1	3-Phase
Bus_LM1_275	Bus	Under Voltage	20.000	kV	17.037	85.2	3-Phase
Bus_LM1_277	Bus	Under Voltage	20.000	kV	17.010	85.0	3-Phase
Bus_LM1_278	Bus	Under Voltage	20.000	kV	17.020	85.1	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_281	Bus	Under Voltage	20.000	kV	17.003	85.0	3-Phase
Bus_LM1_282	Bus	Under Voltage	20.000	kV	17.006	85.0	3-Phase
Bus_LM1_283	Bus	Under Voltage	20.000	kV	16.999	85.0	3-Phase
Bus_LM1_284	Bus	Under Voltage	20.000	kV	17.001	85.0	3-Phase
Bus_LM1_285	Bus	Under Voltage	20.000	kV	17.018	85.1	3-Phase
Bus_LM1_286	Bus	Under Voltage	20.000	kV	16.998	85.0	3-Phase
Bus_LM1_288	Bus	Under Voltage	20.000	kV	17.018	85.1	3-Phase
Bus_LM1_292	Bus	Under Voltage	20.000	kV	17.015	85.1	3-Phase
Bus_LM1_293	Bus	Under Voltage	20.000	kV	17.016	85.1	3-Phase
Bus_LM1_294	Bus	Under Voltage	20.000	kV	17.018	85.1	3-Phase
Bus_LM1_298	Bus	Under Voltage	20.000	kV	16.980	84.9	3-Phase
Bus_LM1_299	Bus	Under Voltage	20.000	kV	16.993	85.0	3-Phase
Bus_LM1_300	Bus	Under Voltage	20.000	kV	17.006	85.0	3-Phase
Bus_LM1_304	Bus	Under Voltage	20.000	kV	16.962	84.8	3-Phase
Bus_LM1_305	Bus	Under Voltage	20.000	kV	16.963	84.8	3-Phase
Bus_LM1_306	Bus	Under Voltage	20.000	kV	16.965	84.8	3-Phase
Bus_LM1_307	Bus	Under Voltage	20.000	kV	16.967	84.8	3-Phase
Bus_LM1_309	Bus	Under Voltage	20.000	kV	16.955	84.8	3-Phase
Bus_LM1_312	Bus	Under Voltage	20.000	kV	16.953	84.8	3-Phase
Bus_LM1_313	Bus	Under Voltage	20.000	kV	16.954	84.8	3-Phase
Bus_LM1_318	Bus	Under Voltage	20.000	kV	16.937	84.7	3-Phase
Bus_LM1_319	Bus	Under Voltage	20.000	kV	16.937	84.7	3-Phase
Bus_LM1_320	Bus	Under Voltage	20.000	kV	16.939	84.7	3-Phase
Bus_LM1_321	Bus	Under Voltage	20.000	kV	16.941	84.7	3-Phase
Bus_LM1_322	Bus	Under Voltage	20.000	kV	16.944	84.7	3-Phase
Bus_LM1_327	Bus	Under Voltage	20.000	kV	16.908	84.5	3-Phase
Bus_LM1_328	Bus	Under Voltage	20.000	kV	16.916	84.6	3-Phase
Bus_LM1_329	Bus	Under Voltage	20.000	kV	16.925	84.6	3-Phase
Bus_LM1_330	Bus	Under Voltage	20.000	kV	16.935	84.7	3-Phase
Bus_LM1_335	Bus	Under Voltage	20.000	kV	16.891	84.5	3-Phase
Bus_LM1_336	Bus	Under Voltage	20.000	kV	16.894	84.5	3-Phase
Bus_LM1_337	Bus	Under Voltage	20.000	kV	16.898	84.5	3-Phase
Bus_LM1_338	Bus	Under Voltage	20.000	kV	16.902	84.5	3-Phase
Bus_LM1_343	Bus	Under Voltage	20.000	kV	16.888	84.4	3-Phase
Bus_LM1_344	Bus	Under Voltage	20.000	kV	16.887	84.4	3-Phase
Bus_LM1_345	Bus	Under Voltage	20.000	kV	16.877	84.4	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_346	Bus	Under Voltage	20.000	kV	16.886	84.4	3-Phase
Bus_LM1_353	Bus	Under Voltage	20.000	kV	16.899	84.5	3-Phase
Bus_LM1_354	Bus	Under Voltage	20.000	kV	16.896	84.5	3-Phase
Bus_LM1_355	Bus	Under Voltage	20.000	kV	16.897	84.5	3-Phase
Bus_LM1_356	Bus	Under Voltage	20.000	kV	16.898	84.5	3-Phase
Bus_LM1_357	Bus	Under Voltage	20.000	kV	16.901	84.5	3-Phase
Bus_LM1_358	Bus	Under Voltage	20.000	kV	16.904	84.5	3-Phase
Bus_LM1_359	Bus	Under Voltage	20.000	kV	16.903	84.5	3-Phase
Bus_LM1_361	Bus	Under Voltage	20.000	kV	16.894	84.5	3-Phase
Bus_LM1_362	Bus	Under Voltage	20.000	kV	16.890	84.5	3-Phase
Bus_LM1_366	Bus	Under Voltage	20.000	kV	16.884	84.4	3-Phase
Bus_LM1_367	Bus	Under Voltage	20.000	kV	16.885	84.4	3-Phase
Bus_LM1_368	Bus	Under Voltage	20.000	kV	16.886	84.4	3-Phase
Bus_LM1_369	Bus	Under Voltage	20.000	kV	16.887	84.4	3-Phase
Bus_LM1_375	Bus	Under Voltage	20.000	kV	16.879	84.4	3-Phase
Bus_LM1_376	Bus	Under Voltage	20.000	kV	16.881	84.4	3-Phase
Bus_LM1_377	Bus	Under Voltage	20.000	kV	16.884	84.4	3-Phase
Bus_LM1_380	Bus	Under Voltage	20.000	kV	16.876	84.4	3-Phase
Bus_LM1_383	Bus	Under Voltage	20.000	kV	16.875	84.4	3-Phase
Bus_LM1_384	Bus	Under Voltage	20.000	kV	16.875	84.4	3-Phase
Bus_LM1_385	Bus	Under Voltage	20.000	kV	16.873	84.4	3-Phase
Bus_LM1_386	Bus	Under Voltage	20.000	kV	16.874	84.4	3-Phase
Bus_LM1_6	Bus	Under Voltage	0.400	kV	0.378	94.6	3-Phase
Bus_LM1_60	Bus	Under Voltage	0.400	kV	0.377	94.3	3-Phase
Bus_LM3_10	Bus	Under Voltage	0.400	kV	0.363	90.7	3-Phase
Bus_LM3_108	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_109	Bus	Under Voltage	0.400	kV	0.350	87.5	3-Phase
Bus_LM3_11	Bus	Under Voltage	20.000	kV	18.607	93.0	3-Phase
Bus_LM3_110	Bus	Under Voltage	0.400	kV	0.349	87.3	3-Phase
Bus_LM3_111	Bus	Under Voltage	0.400	kV	0.345	86.4	3-Phase
Bus_LM3_112	Bus	Under Voltage	0.400	kV	0.348	87.0	3-Phase
Bus_LM3_113	Bus	Under Voltage	20.000	kV	17.851	89.3	3-Phase
Bus_LM3_114	Bus	Under Voltage	20.000	kV	17.881	89.4	3-Phase
Bus_LM3_115	Bus	Under Voltage	20.000	kV	17.911	89.6	3-Phase
Bus_LM3_116	Bus	Under Voltage	20.000	kV	17.944	89.7	3-Phase
Bus_LM3_117	Bus	Under Voltage	20.000	kV	17.978	89.9	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_12	Bus	Under Voltage	0.400	kV	0.362	90.4	3-Phase
Bus_LM3_128	Bus	Under Voltage	0.400	kV	0.346	86.5	3-Phase
Bus_LM3_129	Bus	Under Voltage	0.400	kV	0.349	87.3	3-Phase
Bus_LM3_13	Bus	Under Voltage	20.000	kV	18.556	92.8	3-Phase
Bus_LM3_130	Bus	Under Voltage	0.400	kV	0.346	86.4	3-Phase
Bus_LM3_131	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_132	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_133	Bus	Under Voltage	20.000	kV	17.896	89.5	3-Phase
Bus_LM3_134	Bus	Under Voltage	20.000	kV	17.897	89.5	3-Phase
Bus_LM3_135	Bus	Under Voltage	20.000	kV	17.899	89.5	3-Phase
Bus_LM3_136	Bus	Under Voltage	20.000	kV	17.902	89.5	3-Phase
Bus_LM3_137	Bus	Under Voltage	20.000	kV	17.906	89.5	3-Phase
Bus_LM3_14	Bus	Under Voltage	0.400	kV	0.365	91.2	3-Phase
Bus_LM3_140	Bus	Under Voltage	20.000	kV	17.828	89.1	3-Phase
Bus_LM3_141	Bus	Under Voltage	0.400	kV	0.340	85.1	3-Phase
Bus_LM3_144	Bus	Under Voltage	20.000	kV	17.810	89.1	3-Phase
Bus_LM3_145	Bus	Under Voltage	0.400	kV	0.348	87.1	3-Phase
Bus_LM3_146	Bus	Under Voltage	20.000	kV	17.794	89.0	3-Phase
Bus_LM3_147	Bus	Under Voltage	0.400	kV	0.352	88.0	3-Phase
Bus_LM3_152	Bus	Under Voltage	20.000	kV	17.778	88.9	3-Phase
Bus_LM3_153	Bus	Under Voltage	0.400	kV	0.339	84.8	3-Phase
Bus_LM3_156	Bus	Under Voltage	20.000	kV	17.772	88.9	3-Phase
Bus_LM3_157	Bus	Under Voltage	0.400	kV	0.347	86.9	3-Phase
Bus_LM3_159	Bus	Under Voltage	0.400	kV	0.327	81.9	3-Phase
Bus_LM3_160	Bus	Under Voltage	20.000	kV	17.765	88.8	3-Phase
Bus_LM3_161	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_162	Bus	Under Voltage	20.000	kV	17.763	88.8	3-Phase
Bus_LM3_163	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_164	Bus	Under Voltage	20.000	kV	17.761	88.8	3-Phase
Bus_LM3_165	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_166	Bus	Under Voltage	20.000	kV	17.760	88.8	3-Phase
Bus_LM3_167	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_170	Bus	Under Voltage	20.000	kV	17.766	88.8	3-Phase
Bus_LM3_171	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_173	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_175	Bus	Under Voltage	0.400	kV	0.339	84.7	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_176	Bus	Under Voltage	0.400	kV	0.347	86.8	3-Phase
Bus_LM3_177	Bus	Under Voltage	0.400	kV	0.351	87.7	3-Phase
Bus_LM3_178	Bus	Under Voltage	0.400	kV	0.351	87.7	3-Phase
Bus_LM3_180	Bus	Under Voltage	0.400	kV	0.347	86.7	3-Phase
Bus_LM3_182	Bus	Under Voltage	0.400	kV	0.351	87.7	3-Phase
Bus_LM3_183	Bus	Under Voltage	0.400	kV	0.347	86.6	3-Phase
Bus_LM3_184	Bus	Under Voltage	0.400	kV	0.347	86.6	3-Phase
Bus_LM3_188	Bus	Under Voltage	20.000	kV	18.870	94.4	3-Phase
Bus_LM3_188_	Bus	Under Voltage	20.000	kV	18.504	92.5	3-Phase
Bus_LM3_189	Bus	Under Voltage	0.400	kV	0.367	91.7	3-Phase
Bus_LM3_191	Bus	Under Voltage	0.400	kV	0.347	86.6	3-Phase
Bus_LM3_192	Bus	Under Voltage	0.400	kV	0.351	87.6	3-Phase
Bus_LM3_193	Bus	Under Voltage	0.400	kV	0.351	87.6	3-Phase
Bus_LM3_194	Bus	Under Voltage	0.400	kV	0.347	86.6	3-Phase
Bus_LM3_196	Bus	Under Voltage	0.400	kV	0.344	85.9	3-Phase
Bus_LM3_198	Bus	Under Voltage	0.400	kV	0.346	86.6	3-Phase
Bus_LM3_199	Bus	Under Voltage	0.400	kV	0.344	85.9	3-Phase
Bus_LM3_200	Bus	Under Voltage	0.400	kV	0.343	85.8	3-Phase
Bus_LM3_201	Bus	Under Voltage	0.400	kV	0.343	85.7	3-Phase
Bus_LM3_202	Bus	Under Voltage	0.400	kV	0.342	85.5	3-Phase
Bus_LM3_203	Bus	Under Voltage	0.400	kV	0.342	85.4	3-Phase
Bus_LM3_205	Bus	Under Voltage	0.400	kV	0.348	87.0	3-Phase
Bus_LM3_207	Bus	Under Voltage	0.400	kV	0.348	86.9	3-Phase
Bus_LM3_208	Bus	Under Voltage	0.400	kV	0.343	85.7	3-Phase
Bus_LM3_209	Bus	Under Voltage	0.400	kV	0.342	85.6	3-Phase
Bus_LM3_210	Bus	Under Voltage	0.400	kV	0.342	85.5	3-Phase
Bus_LM3_211	Bus	Under Voltage	0.400	kV	0.346	86.5	3-Phase
Bus_LM3_212	Bus	Under Voltage	0.400	kV	0.346	86.5	3-Phase
Bus_LM3_213	Bus	Under Voltage	0.400	kV	0.333	83.3	3-Phase
Bus_LM3_214	Bus	Under Voltage	0.400	kV	0.341	85.2	3-Phase
Bus_LM3_217	Bus	Under Voltage	0.400	kV	0.340	85.0	3-Phase
Bus_LM3_218	Bus	Under Voltage	0.400	kV	0.340	85.1	3-Phase
Bus_LM3_219	Bus	Under Voltage	0.400	kV	0.339	84.8	3-Phase
Bus_LM3_220	Bus	Under Voltage	0.400	kV	0.340	84.9	3-Phase
Bus_LM3_221	Bus	Under Voltage	0.400	kV	0.338	84.5	3-Phase
Bus_LM3_222	Bus	Under Voltage	0.400	kV	0.339	84.7	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_223	Bus	Under Voltage	0.400	kV	0.342	85.4	3-Phase
Bus_LM3_224	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_225	Bus	Under Voltage	0.400	kV	0.341	85.4	3-Phase
Bus_LM3_226	Bus	Under Voltage	0.400	kV	0.343	85.8	3-Phase
Bus_LM3_230	Bus	Under Voltage	0.400	kV	0.341	85.2	3-Phase
Bus_LM3_232	Bus	Under Voltage	0.400	kV	0.337	84.1	3-Phase
Bus_LM3_234	Bus	Under Voltage	0.400	kV	0.336	84.0	3-Phase
Bus_LM3_235	Bus	Under Voltage	0.400	kV	0.336	83.9	3-Phase
Bus_LM3_236	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
Bus_LM3_239	Bus	Under Voltage	0.400	kV	0.339	84.6	3-Phase
Bus_LM3_240	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_245	Bus	Under Voltage	0.400	kV	0.325	81.3	3-Phase
Bus_LM3_246	Bus	Under Voltage	0.400	kV	0.333	83.3	3-Phase
Bus_LM3_247	Bus	Under Voltage	0.400	kV	0.324	81.1	3-Phase
Bus_LM3_248	Bus	Under Voltage	0.400	kV	0.338	84.5	3-Phase
Bus_LM3_251	Bus	Under Voltage	0.400	kV	0.333	83.2	3-Phase
Bus_LM3_252	Bus	Under Voltage	0.400	kV	0.337	84.2	3-Phase
Bus_LM3_255	Bus	Under Voltage	0.400	kV	0.336	84.1	3-Phase
Bus_LM3_256	Bus	Under Voltage	0.400	kV	0.337	84.2	3-Phase
Bus_LM3_258	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
Bus_LM3_261	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
Bus_LM3_262	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
Bus_LM3_263	Bus	Under Voltage	0.400	kV	0.332	82.9	3-Phase
Bus_LM3_264	Bus	Under Voltage	0.400	kV	0.332	82.9	3-Phase
Bus_LM3_265	Bus	Under Voltage	0.400	kV	0.332	82.9	3-Phase
Bus_LM3_266	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
Bus_LM3_268	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
Bus_LM3_27	Bus	Under Voltage	0.400	kV	0.357	89.3	3-Phase
Bus_LM3_272	Bus	Under Voltage	0.400	kV	0.323	80.9	3-Phase
Bus_LM3_273	Bus	Under Voltage	0.400	kV	0.336	84.1	3-Phase
Bus_LM3_274	Bus	Under Voltage	0.400	kV	0.324	80.9	3-Phase
Bus_LM3_278	Bus	Under Voltage	0.400	kV	0.332	82.9	3-Phase
Bus_LM3_279	Bus	Under Voltage	0.400	kV	0.323	80.7	3-Phase
Bus_LM3_28	Bus	Under Voltage	0.400	kV	0.356	89.1	3-Phase
Bus_LM3_280	Bus	Under Voltage	0.400	kV	0.332	83.0	3-Phase
Bus_LM3_284	Bus	Under Voltage	0.400	kV	0.331	82.8	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_285	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
Bus_LM3_286	Bus	Under Voltage	0.400	kV	0.335	83.8	3-Phase
Bus_LM3_288	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
Bus_LM3_29	Bus	Under Voltage	0.400	kV	0.355	88.8	3-Phase
Bus_LM3_291	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
Bus_LM3_292	Bus	Under Voltage	0.400	kV	0.331	82.7	3-Phase
Bus_LM3_297	Bus	Under Voltage	0.400	kV	0.310	77.4	3-Phase
Bus_LM3_298	Bus	Under Voltage	0.400	kV	0.310	77.4	3-Phase
Bus_LM3_299	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_3	Bus	Under Voltage	20.000	kV	18.817	94.1	3-Phase
Bus_LM3_30	Bus	Under Voltage	0.400	kV	0.354	88.6	3-Phase
Bus_LM3_300	Bus	Under Voltage	0.400	kV	0.335	83.7	3-Phase
Bus_LM3_305	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
Bus_LM3_306	Bus	Under Voltage	0.400	kV	0.330	82.6	3-Phase
Bus_LM3_307	Bus	Under Voltage	0.400	kV	0.321	80.4	3-Phase
Bus_LM3_308	Bus	Under Voltage	0.400	kV	0.330	82.5	3-Phase
Bus_LM3_31	Bus	Under Voltage	0.400	kV	0.359	89.7	3-Phase
Bus_LM3_313	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_314	Bus	Under Voltage	0.400	kV	0.309	77.2	3-Phase
Bus_LM3_315	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_316	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_32	Bus	Under Voltage	20.000	kV	18.251	91.3	3-Phase
Bus_LM3_321	Bus	Under Voltage	0.400	kV	0.334	83.4	3-Phase
Bus_LM3_322	Bus	Under Voltage	0.400	kV	0.329	82.4	3-Phase
Bus_LM3_323	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_324	Bus	Under Voltage	0.400	kV	0.334	83.4	3-Phase
Bus_LM3_33	Bus	Under Voltage	20.000	kV	18.252	91.3	3-Phase
Bus_LM3_331	Bus	Under Voltage	0.400	kV	0.321	80.3	3-Phase
Bus_LM3_332	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_333	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_334	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_335	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_336	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_338	Bus	Under Voltage	0.400	kV	0.330	82.4	3-Phase
Bus_LM3_339	Bus	Under Voltage	0.400	kV	0.334	83.4	3-Phase
Bus_LM3_34	Bus	Under Voltage	20.000	kV	18.302	91.5	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_343	Bus	Under Voltage	0.400	kV	0.324	81.1	3-Phase
Bus_LM3_344	Bus	Under Voltage	0.400	kV	0.329	82.4	3-Phase
Bus_LM3_345	Bus	Under Voltage	0.400	kV	0.334	83.4	3-Phase
Bus_LM3_35	Bus	Under Voltage	20.000	kV	18.352	91.8	3-Phase
Bus_LM3_350	Bus	Under Voltage	0.400	kV	0.321	80.2	3-Phase
Bus_LM3_351	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_352	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_354	Bus	Under Voltage	0.400	kV	0.333	83.4	3-Phase
Bus_LM3_357	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_358	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_359	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_36	Bus	Under Voltage	20.000	kV	18.402	92.0	3-Phase
Bus_LM3_360	Bus	Under Voltage	0.400	kV	0.329	82.3	3-Phase
Bus_LM3_362	Bus	Under Voltage	0.400	kV	0.350	87.5	3-Phase
Bus_LM3_37	Bus	Under Voltage	20.000	kV	18.453	92.3	3-Phase
Bus_LM3_38	Bus	Under Voltage	0.400	kV	0.358	89.6	3-Phase
Bus_LM3_4	Bus	Under Voltage	0.400	kV	0.366	91.5	3-Phase
Bus_LM3_40	Bus	Under Voltage	0.400	kV	0.354	88.6	3-Phase
Bus_LM3_41	Bus	Under Voltage	20.000	kV	18.250	91.2	3-Phase
Bus_LM3_5	Bus	Under Voltage	20.000	kV	18.764	93.8	3-Phase
Bus_LM3_56	Bus	Under Voltage	0.400	kV	0.350	87.6	3-Phase
Bus_LM3_57	Bus	Under Voltage	0.400	kV	0.349	87.2	3-Phase
Bus_LM3_58	Bus	Under Voltage	0.400	kV	0.351	87.8	3-Phase
Bus_LM3_59	Bus	Under Voltage	0.400	kV	0.353	88.3	3-Phase
Bus_LM3_6	Bus	Under Voltage	0.400	kV	0.365	91.2	3-Phase
Bus_LM3_60	Bus	Under Voltage	0.400	kV	0.350	87.5	3-Phase
Bus_LM3_61	Bus	Under Voltage	0.400	kV	0.352	88.1	3-Phase
Bus_LM3_62	Bus	Under Voltage	0.400	kV	0.352	88.0	3-Phase
Bus_LM3_63	Bus	Under Voltage	20.000	kV	18.203	91.0	3-Phase
Bus_LM3_64	Bus	Under Voltage	20.000	kV	18.155	90.8	3-Phase
Bus_LM3_65	Bus	Under Voltage	20.000	kV	18.107	90.5	3-Phase
Bus_LM3_66	Bus	Under Voltage	20.000	kV	18.059	90.3	3-Phase
Bus_LM3_67	Bus	Under Voltage	20.000	kV	18.012	90.1	3-Phase
Bus_LM3_68	Bus	Under Voltage	20.000	kV	17.984	89.9	3-Phase
Bus_LM3_69	Bus	Under Voltage	20.000	kV	17.957	89.8	3-Phase
Bus_LM3_7	Bus	Under Voltage	20.000	kV	18.711	93.6	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM3_74	Bus	Under Voltage	0.400	kV	0.349	87.3	3-Phase
Bus_LM3_75	Bus	Under Voltage	0.400	kV	0.348	86.9	3-Phase
Bus_LM3_76	Bus	Under Voltage	20.000	kV	17.932	89.7	3-Phase
Bus_LM3_77	Bus	Under Voltage	20.000	kV	17.908	89.5	3-Phase
Bus_LM3_78	Bus	Under Voltage	0.400	kV	0.346	86.6	3-Phase
Bus_LM3_79	Bus	Under Voltage	0.400	kV	0.349	87.2	3-Phase
Bus_LM3_8	Bus	Under Voltage	0.400	kV	0.364	90.9	3-Phase
Bus_LM3_80	Bus	Under Voltage	20.000	kV	17.886	89.4	3-Phase
Bus_LM3_81	Bus	Under Voltage	20.000	kV	17.865	89.3	3-Phase
Bus_LM3_82	Bus	Under Voltage	0.400	kV	0.351	87.8	3-Phase
Bus_LM3_83	Bus	Under Voltage	0.400	kV	0.348	87.0	3-Phase
Bus_LM3_84	Bus	Under Voltage	20.000	kV	17.846	89.2	3-Phase
Bus_LM3_85	Bus	Under Voltage	20.000	kV	18.006	90.0	3-Phase
Bus_LM3_86	Bus	Under Voltage	0.400	kV	0.349	87.3	3-Phase
Bus_LM3_87	Bus	Under Voltage	0.400	kV	0.348	87.0	3-Phase
Bus_LM3_88	Bus	Under Voltage	20.000	kV	18.002	90.0	3-Phase
Bus_LM3_89	Bus	Under Voltage	20.000	kV	17.999	90.0	3-Phase
Bus_LM3_9	Bus	Under Voltage	20.000	kV	18.659	93.3	3-Phase
Bus_LM3_94	Bus	Under Voltage	0.400	kV	0.351	87.8	3-Phase
Bus_LM3_95	Bus	Under Voltage	0.400	kV	0.348	86.9	3-Phase
Bus_LM3_96	Bus	Under Voltage	20.000	kV	17.997	90.0	3-Phase
Bus_LM3_97	Bus	Under Voltage	20.000	kV	17.995	90.0	3-Phase
CO_TRIKORA	Fuse	Overload	25.000	Amp	28.144	112.6	3-Phase
G_LM1_GM_51	Transformer	Overload	0.025	MVA	0.025	101.8	3-Phase
G_LM1_GM_54	Transformer	Overload	0.050	MVA	0.051	101.7	3-Phase
G_LM1_GM_58	Transformer	Overload	0.025	MVA	0.035	139.6	3-Phase
G_LM3_GMC_159	Transformer	Overload	0.015	MVA	0.025	168.9	3-Phase
G_LM3_GML_233	Transformer	Overload	0.015	MVA	0.025	167.7	3-Phase
G_LM3_GML_234	Transformer	Overload	0.015	MVA	0.025	167.7	3-Phase
G_LM3_GML_242	Transformer	Overload	0.015	MVA	0.025	167.7	3-Phase
G_LM4_GM_92	Transformer	Overload	0.050	MVA	0.051	101.8	3-Phase
G_LMT1_GMT033	Transformer	Overload	0.050	MVA	0.065	130.5	3-Phase
G_LMT1_GMT034	Transformer	Overload	0.050	MVA	0.078	155.9	3-Phase
G_LMT1_GMT046	Transformer	Overload	0.050	MVA	0.053	105.7	3-Phase
G_MR1_GMP_15	Transformer	Overload	0.025	MVA	0.026	102.1	3-Phase
G_MR4_GM44	Transformer	Overload	0.050	MVA	0.084	168.5	3-Phase

Critical Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
G_MR4_GM46	Transformer	Overload	0.050	MVA	0.052	105.0	3-Phase
G_MR6_GMT008	Transformer	Overload	0.025	MVA	0.026	103.0	3-Phase
GH LEMITO	Bus	Under Voltage	20.000	kV	17.243	86.2	3-Phase
GH MARISA	Bus	Under Voltage	20.000	kV	18.947	94.7	3-Phase
GH TILAMUTA	Bus	Under Voltage	20.000	kV	16.920	84.6	3-Phase
LM3 V UJUNG	Bus	Under Voltage	20.000	kV	17.822	89.1	3-Phase
LMT1 V UJUNG	Bus	Under Voltage	20.000	kV	16.657	83.3	3-Phase
LMT2 V UJUNG	Bus	Under Voltage	20.000	kV	16.452	82.3	3-Phase
LO1 V UJUNG	Bus	Under Voltage	20.000	kV	17.822	89.1	3-Phase
LO2 V UJUNG	Bus	Under Voltage	20.000	kV	16.875	84.4	3-Phase
MR6 V UJUNG	Bus	Under Voltage	20.000	kV	18.080	90.4	3-Phase
MR6 V UJUNG2	Bus	Under Voltage	20.000	kV	16.934	84.7	3-Phase
PLTD_TILAMUTA	Generator	Under Excited	0.000	Mvar	0.000	0.0	3-Phase
PLTD_TILAMUTA	Generator	Under Power	0.000	MW	0.000	0.0	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR04_GM	Bus	Over Voltage	20.000	kV	20.605	103.0	3-Phase
B_MR04_GM_12	Bus	Under Voltage	0.400	kV	0.392	97.9	3-Phase
B_MR04_GM_17	Bus	Under Voltage	0.400	kV	0.383	95.8	3-Phase
B_MR04_GM_18	Bus	Under Voltage	0.400	kV	0.389	97.3	3-Phase
B_MR04_GM_25	Bus	Under Voltage	0.400	kV	0.391	97.7	3-Phase
B_MR04_GM_29	Bus	Under Voltage	0.400	kV	0.390	97.5	3-Phase
B_MR04_GM_34	Bus	Under Voltage	0.400	kV	0.387	96.8	3-Phase
B_MR04_GM_38	Bus	Under Voltage	0.400	kV	0.380	95.1	3-Phase
B_MR04_GM_39	Bus	Under Voltage	0.400	kV	0.382	95.4	3-Phase
B_MR04_GM_44	Bus	Under Voltage	0.400	kV	0.390	97.5	3-Phase
B_MR04_GM_47	Bus	Under Voltage	0.400	kV	0.384	96.1	3-Phase
B_MR04_GM_48	Bus	Under Voltage	0.400	kV	0.389	97.3	3-Phase
B_MR04_GM_7	Bus	Under Voltage	0.400	kV	0.391	97.8	3-Phase
B_MR04_GM_8	Bus	Over Voltage	0.400	kV	0.408	102.0	3-Phase
B_MR04_GM1	Bus	Over Voltage	20.000	kV	20.575	102.9	3-Phase
B_MR04_GM2	Bus	Over Voltage	20.000	kV	20.546	102.7	3-Phase
B_MR04_GM3	Bus	Over Voltage	20.000	kV	20.568	102.8	3-Phase
B_MR04_GM4	Bus	Over Voltage	20.000	kV	20.568	102.8	3-Phase
B_MR04_GM5	Bus	Over Voltage	20.000	kV	20.568	102.8	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
B_MR04_GM6	Bus	Over Voltage	20.000	kV	20.518	102.6	3-Phase
B_MR04_GM7	Bus	Over Voltage	20.000	kV	20.468	102.3	3-Phase
B_MR04_GM8	Bus	Over Voltage	20.000	kV	20.418	102.1	3-Phase
B_MR6_GMP1	Bus	Over Voltage	20.000	kV	20.611	103.1	3-Phase
B_MR6_GMP14	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
B_MR6_GMP16	Bus	Under Voltage	20.000	kV	19.463	97.3	3-Phase
B_MR6_GMP19	Bus	Under Voltage	20.000	kV	19.457	97.3	3-Phase
B_MR6_GMP20	Bus	Under Voltage	0.400	kV	0.381	95.2	3-Phase
B_MR6_GMP21	Bus	Under Voltage	20.000	kV	19.456	97.3	3-Phase
B_MR6_GMP24	Bus	Under Voltage	0.400	kV	0.380	95.1	3-Phase
B_MR6_GMP25	Bus	Under Voltage	20.000	kV	19.452	97.3	3-Phase
B_MR6_GMP26	Bus	Under Voltage	20.000	kV	19.452	97.3	3-Phase
B_MR6_GMP30	Bus	Under Voltage	20.000	kV	19.448	97.2	3-Phase
B_MR6_GMP32	Bus	Under Voltage	20.000	kV	19.448	97.2	3-Phase
B_MR6_GMP36	Bus	Under Voltage	20.000	kV	19.445	97.2	3-Phase
B_MR6_GMP37	Bus	Under Voltage	20.000	kV	19.462	97.3	3-Phase
B_MR6_GMP4	Bus	Over Voltage	20.000	kV	20.417	102.1	3-Phase
B_MR6_GMP42	Bus	Under Voltage	0.400	kV	0.387	96.8	3-Phase
B_MR6_GMP43	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
B_MR6_GMP44	Bus	Under Voltage	20.000	kV	19.461	97.3	3-Phase
B_MR6_GMP45	Bus	Under Voltage	20.000	kV	19.461	97.3	3-Phase
B_MR6_GMP46	Bus	Under Voltage	20.000	kV	19.462	97.3	3-Phase
B_MR6_GMP51	Bus	Under Voltage	0.400	kV	0.382	95.6	3-Phase
B_MR6_GMP52	Bus	Under Voltage	0.400	kV	0.388	97.0	3-Phase
B_MR6_GMP53	Bus	Under Voltage	20.000	kV	19.460	97.3	3-Phase
B_MR6_GMP54	Bus	Under Voltage	20.000	kV	19.460	97.3	3-Phase
B_MR6_GMP55	Bus	Under Voltage	20.000	kV	19.461	97.3	3-Phase
B_MR6_GMP58	Bus	Under Voltage	0.400	kV	0.387	96.8	3-Phase
B_MR6_GMP59	Bus	Under Voltage	20.000	kV	19.460	97.3	3-Phase
B_MR6_GMP62	Bus	Under Voltage	0.400	kV	0.383	95.8	3-Phase
B_MR6_GMP63	Bus	Under Voltage	20.000	kV	19.288	96.4	3-Phase
B_MR6_GMP65	Bus	Under Voltage	20.000	kV	19.287	96.4	3-Phase
B_MR6_GMP66	Bus	Under Voltage	20.000	kV	19.289	96.4	3-Phase
B_MR6_GMP70	Bus	Under Voltage	20.000	kV	19.118	95.6	3-Phase
Bus_LM1_100	Bus	Under Voltage	0.400	kV	0.382	95.4	3-Phase
Bus_LM1_101	Bus	Under Voltage	20.000	kV	19.586	97.9	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_102	Bus	Under Voltage	0.400	kV	0.388	96.9	3-Phase
Bus_LM1_111	Bus	Under Voltage	0.400	kV	0.381	95.4	3-Phase
Bus_LM1_112	Bus	Under Voltage	0.400	kV	0.390	97.4	3-Phase
Bus_LM1_113	Bus	Under Voltage	20.000	kV	19.583	97.9	3-Phase
Bus_LM1_114	Bus	Under Voltage	20.000	kV	19.584	97.9	3-Phase
Bus_LM1_115	Bus	Under Voltage	20.000	kV	19.585	97.9	3-Phase
Bus_LM1_116	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_LM1_123	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_LM1_136	Bus	Under Voltage	0.400	kV	0.384	95.9	3-Phase
Bus_LM1_14	Bus	Under Voltage	0.400	kV	0.388	96.9	3-Phase
Bus_LM1_140	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_LM1_152	Bus	Under Voltage	0.400	kV	0.382	95.4	3-Phase
Bus_LM1_153	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_LM1_159	Bus	Under Voltage	0.400	kV	0.384	95.9	3-Phase
Bus_LM1_16	Bus	Under Voltage	0.400	kV	0.385	96.1	3-Phase
Bus_LM1_160	Bus	Under Voltage	0.400	kV	0.384	95.9	3-Phase
Bus_LM1_164	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_LM1_168	Bus	Under Voltage	0.400	kV	0.385	96.4	3-Phase
Bus_LM1_18	Bus	Under Voltage	0.400	kV	0.385	96.2	3-Phase
Bus_LM1_2	Bus	Under Voltage	0.400	kV	0.388	97.0	3-Phase
Bus_LM1_21	Bus	Under Voltage	20.000	kV	19.598	98.0	3-Phase
Bus_LM1_25	Bus	Under Voltage	20.000	kV	19.591	98.0	3-Phase
Bus_LM1_26	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_LM1_31	Bus	Under Voltage	20.000	kV	19.577	97.9	3-Phase
Bus_LM1_32	Bus	Under Voltage	0.400	kV	0.385	96.2	3-Phase
Bus_LM1_33	Bus	Under Voltage	20.000	kV	19.558	97.8	3-Phase
Bus_LM1_34	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_LM1_35	Bus	Under Voltage	20.000	kV	19.559	97.8	3-Phase
Bus_LM1_36	Bus	Under Voltage	0.400	kV	0.388	96.9	3-Phase
Bus_LM1_37	Bus	Under Voltage	20.000	kV	19.570	97.9	3-Phase
Bus_LM1_38	Bus	Under Voltage	0.400	kV	0.383	95.8	3-Phase
Bus_LM1_39	Bus	Under Voltage	20.000	kV	19.564	97.8	3-Phase
Bus_LM1_40	Bus	Under Voltage	0.400	kV	0.386	96.6	3-Phase
Bus_LM1_41	Bus	Under Voltage	20.000	kV	19.584	97.9	3-Phase
Bus_LM1_42	Bus	Under Voltage	20.000	kV	19.556	97.8	3-Phase
Bus_LM1_43	Bus	Under Voltage	0.400	kV	0.382	95.5	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_LM1_44	Bus	Under Voltage	20.000	kV	19.556	97.8	3-Phase
Bus_LM1_45	Bus	Under Voltage	0.400	kV	0.389	97.2	3-Phase
Bus_LM1_46	Bus	Under Voltage	20.000	kV	19.556	97.8	3-Phase
Bus_LM1_47	Bus	Under Voltage	0.400	kV	0.390	97.5	3-Phase
Bus_LM1_58	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_LM1_59	Bus	Under Voltage	20.000	kV	19.556	97.8	3-Phase
Bus_LM1_61	Bus	Under Voltage	0.400	kV	0.383	95.8	3-Phase
Bus_LM1_62	Bus	Under Voltage	0.400	kV	0.382	95.5	3-Phase
Bus_LM1_63	Bus	Under Voltage	20.000	kV	19.548	97.7	3-Phase
Bus_LM1_64	Bus	Under Voltage	20.000	kV	19.549	97.7	3-Phase
Bus_LM1_65	Bus	Under Voltage	20.000	kV	19.551	97.8	3-Phase
Bus_LM1_66	Bus	Under Voltage	20.000	kV	19.553	97.8	3-Phase
Bus_LM1_67	Bus	Under Voltage	0.400	kV	0.387	96.7	3-Phase
Bus_LM1_71	Bus	Under Voltage	0.400	kV	0.388	97.1	3-Phase
Bus_LM1_75	Bus	Under Voltage	0.400	kV	0.387	96.7	3-Phase
Bus_LM1_77	Bus	Under Voltage	0.400	kV	0.390	97.6	3-Phase
Bus_LM1_79	Bus	Under Voltage	0.400	kV	0.389	97.2	3-Phase
Bus_LM1_8	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_LM1_81	Bus	Under Voltage	0.400	kV	0.384	96.1	3-Phase
Bus_LM1_83	Bus	Under Voltage	0.400	kV	0.392	97.9	3-Phase
Bus_LM1_85	Bus	Under Voltage	0.400	kV	0.392	97.9	3-Phase
Bus_LM1_87	Bus	Under Voltage	0.400	kV	0.382	95.5	3-Phase
Bus_LM1_92	Bus	Under Voltage	0.400	kV	0.382	95.5	3-Phase
Bus_LM1_93	Bus	Under Voltage	20.000	kV	19.599	98.0	3-Phase
Bus_LM1_94	Bus	Under Voltage	0.400	kV	0.389	97.3	3-Phase
Bus_LM1_95	Bus	Under Voltage	20.000	kV	19.591	98.0	3-Phase
Bus_LM1_96	Bus	Under Voltage	0.400	kV	0.382	95.4	3-Phase
Bus_LM1_97	Bus	Under Voltage	20.000	kV	19.594	98.0	3-Phase
Bus_LM1_98	Bus	Under Voltage	0.400	kV	0.384	96.1	3-Phase
Bus_LM1_99	Bus	Under Voltage	20.000	kV	19.588	97.9	3-Phase
Bus_MR1_GMP13	Bus	Under Voltage	0.400	kV	0.392	97.9	3-Phase
Bus_MR1_GMP15	Bus	Under Voltage	0.400	kV	0.391	97.6	3-Phase
Bus_MR1_GMP17	Bus	Under Voltage	0.400	kV	0.389	97.4	3-Phase
Bus_MR1_GMP19	Bus	Under Voltage	0.400	kV	0.388	97.1	3-Phase
Bus_MR1_GMP2	Bus	Over Voltage	20.000	kV	20.554	102.8	3-Phase
Bus_MR1_GMP21	Bus	Under Voltage	0.400	kV	0.387	96.8	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
Bus_MR1_GMP23	Bus	Under Voltage	0.400	kV	0.386	96.6	3-Phase
Bus_MR1_GMP25	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_MR1_GMP27	Bus	Under Voltage	0.400	kV	0.385	96.4	3-Phase
Bus_MR1_GMP29	Bus	Under Voltage	0.400	kV	0.382	95.6	3-Phase
Bus_MR1_GMP31	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP33	Bus	Under Voltage	0.400	kV	0.385	96.2	3-Phase
Bus_MR1_GMP35	Bus	Under Voltage	0.400	kV	0.385	96.1	3-Phase
Bus_MR1_GMP37	Bus	Under Voltage	0.400	kV	0.384	96.1	3-Phase
Bus_MR1_GMP44	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP46	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP48	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP50	Bus	Under Voltage	0.400	kV	0.384	96.1	3-Phase
Bus_MR1_GMP52	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP54	Bus	Under Voltage	0.400	kV	0.384	96.0	3-Phase
Bus_MR1_GMP56	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_MR1_GMP58	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_MR1_GMP6	Bus	Over Voltage	20.000	kV	20.421	102.1	3-Phase
Bus_MR1_GMP60	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_MR1_GMP62	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_MR1_GMP64	Bus	Under Voltage	0.400	kV	0.386	96.5	3-Phase
Bus_MR1_GMP66	Bus	Under Voltage	0.400	kV	0.387	96.7	3-Phase
Bus_MR1_GMP73	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
Bus_MR1_GMP75	Bus	Under Voltage	0.400	kV	0.385	96.4	3-Phase
Bus_MR1_GMP77	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP79	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP81	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP83	Bus	Under Voltage	0.400	kV	0.385	96.3	3-Phase
Bus_MR1_GMP87	Bus	Under Voltage	0.400	kV	0.384	96.1	3-Phase
Bus_MR1_GMP92	Bus	Over Voltage	20.000	kV	20.487	102.4	3-Phase
Bus_MR1_GMP94	Bus	Over Voltage	20.000	kV	20.622	103.1	3-Phase
Bus_MR1_GMP98	Bus	Under Voltage	0.400	kV	0.386	96.4	3-Phase
G_LM3_GMC_155	Transformer	Overload	0.025	MVA	0.025	99.0	3-Phase
G_LM3_GMC_158	Transformer	Overload	0.025	MVA	0.025	98.9	3-Phase
G_LM3_GMC_167	Transformer	Overload	0.025	MVA	0.025	98.9	3-Phase
G_LM3_GML_186	Transformer	Overload	0.025	MVA	0.025	98.5	3-Phase
G_LM3_GML_194	Transformer	Overload	0.025	MVA	0.025	98.3	3-Phase

Marginal Report

Device ID	Type	Condition	Rating/Limit	Unit	Operating	% Operating	Phase Type
G_LM3_GML_206	Transformer	Overload	0.025	MVA	0.025	98.0	3-Phase
G_LM3_GML_208	Transformer	Overload	0.025	MVA	0.024	98.0	3-Phase
G_LM3_GML_221	Transformer	Overload	0.025	MVA	0.024	97.9	3-Phase
G_LM3_GML_222	Transformer	Overload	0.025	MVA	0.024	97.9	3-Phase
G_LM3_GML_226	Transformer	Overload	0.025	MVA	0.024	97.9	3-Phase
G_LM3_GML_239	Transformer	Overload	0.025	MVA	0.024	97.8	3-Phase
G_LM3_GML_248	Transformer	Overload	0.025	MVA	0.024	97.8	3-Phase
G_LM3_GML_259	Transformer	Overload	0.025	MVA	0.024	97.8	3-Phase
G_MR4_GM09	Transformer	Overload	0.100	MVA	0.095	95.3	3-Phase
GI MARISA	Bus	Over Voltage	20.000	kV	20.632	103.2	3-Phase
LM1 V UJUNG	Bus	Under Voltage	20.000	kV	19.556	97.8	3-Phase

SUMMARY OF TOTAL GENERATION , LOADING & DEMAND

	MW	Mvar	MVA	% PF
Source (Swing Buses):	15.214	10.914	18.724	81.26 Lagging
Source (Non-Swing Buses):	0.000	0.000	0.000	
Total Demand:	15.214	10.914	18.724	81.26 Lagging
Total Motor Load:	11.284	6.993	13.276	85.00 Lagging
Total Static Load:	2.333	1.446	2.744	85.00 Lagging
Total Constant I Load:	0.000	0.000	0.000	
Total Generic Load:	0.000	0.000	0.000	
Apparent Losses:	1.598	2.475		
System Mismatch:	0.000	0.000		

Number of Iterations: 4