



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-518
SUFFOLK 230 KV
50 MW Capacity / 50 MW Energy**

January 2021

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1 Introduction

This Feasibility Study has been prepared in accordance with the PJM Open Access Transmission Tariff, 36.2, as well as the Feasibility Study Agreement between the Interconnection Customer (IC), and PJM Interconnection, LLC (PJM), Transmission Provider (TP). The Interconnected Transmission Owner (ITO) is Dominion.

2 Preface

The intent of the feasibility study is to determine a plan, with ballpark cost and construction time estimates, to connect the subject generation to the PJM network at a location specified by the Interconnection Customer. The Interconnection Customer may request the interconnection of generation as a capacity resource or as an energy-only resource. As a requirement for interconnection, the Interconnection Customer may be responsible for the cost of constructing: (1) Direct Connections, which are new facilities and/or facilities upgrades needed to connect the generator to the PJM network, and (2) Network Upgrades, which are facility additions, or upgrades to existing facilities, that are needed to maintain the reliability of the PJM system.

In some instances a generator interconnection may not be responsible for 100% of the identified network upgrade cost because other transmission network uses, e.g. another generation interconnection, may also contribute to the need for the same network reinforcement. Cost allocation rules for network upgrades can be found in PJM Manual 14A, Attachment B. The possibility of sharing the reinforcement costs with other projects may be identified in the feasibility study, but the actual allocation will be deferred until the impact study is performed.

The Interconnection Customer seeking to interconnect a wind or solar generation facility shall maintain meteorological data facilities as well as provide that meteorological data which is required per Schedule H to the Interconnection Service Agreement and Section 8 of Manual 14D.

The Feasibility Study estimates do not include the feasibility, cost, or time required to obtain property rights and permits for construction of the required facilities. The project developer is responsible for the right of way, real estate, and construction permit issues. For properties currently owned by Transmission Owners, the costs may be included in the study.

3 General

The Interconnection Customer (IC), has proposed a Solar; Storage generating facility located in City of Suffolk County, Virginia. The installed facilities will have a total capability of 50 MW with 50 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is September 01, 2023. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-518
Project Name	SUFFOLK 230 KV
State	Virginia
County	City of Suffolk
Transmission Owner	Dominion
MFO	50
MWE	50
MWC	50
Fuel	Solar; Storage
Basecase Study Year	2024

Any new service customers who can feasibly be commercially operable prior to June 1st of the basecase study year are required to request interim deliverability analysis.

4 Point of Interconnection

4.1 Primary Point of Interconnection

AG1-518 "Suffolk 230 kV" will interconnect with the Dominion transmission system. The primary POI is a direct connect to the Suffolk 230 kV substation.

The IC is responsible for securing right-of-way, permits, and constructing the proposed attachment line from the generating facility site to the Point of Interconnection. The IC may not install any facilities on Dominion's right-of-way without first obtaining the necessary approval from Dominion Energy.

Attachment 1 shows a one-line diagram of the proposed interconnection facilities.

4.2 Secondary Point of Interconnection

The IC requested that a secondary POI be reviewed for network impacts.

The secondary POI for AG1-518 is a new tap on the Suffolk-Sunbury 230 kV line.

This report does not provide costs for the interconnection of the secondary POI. The secondary POI was analyzed for network impacts. Network impact results are shown in the Summer Peak - Load Flow Analysis – Secondary Point of Interconnection section of this report.

5 Cost Summary

The AG1-518 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$3,300,000
Total System Network Upgrade Costs	\$4,000,000 ¹
Total Costs	\$7,300,000

This cost excludes a Federal Income Tax Gross Up charges. This tax may or may not be charged based on whether this project meets the eligibility requirements of IRS Notice 2016-36, 2016-25 I.R.B. (6/20/2016). If at a future date it is determined that the Federal Income Tax Gross charge is required, the Transmission Owner shall be reimbursed by the Interconnection Customer for such taxes.

Cost allocations for any System Upgrades will be provided in the System Impact Study Report.

¹ This project currently causes and/or contributes to overloads of the Transmission System (see Summer Peak Load Flow Analysis section below) and therefore has potential to have cost allocation for the system reinforcements listed in the report. This will be re-evaluated in the System Impact phase. The results may vary with queue customers withdrawing from the queue and other generators deactivating over time. If a customer is the first to cause the need for a project (causes loading to exceed 100% of rating), then the customer is responsible. If a customer contributes to a facility that is already overloaded by a prior queue, then they may receive cost allocation.

6 Transmission Owner Scope of Work

The required Attachment Facilities, Direct Connection and Non-Direct Connection work for the interconnection of AG1-518 to the Dominion Transmission System is detailed in the following sections. The associated one-line showing the generation project attachment facilities and primary direct and non-direct connection is shown in Attachment 1.

Note that the ITO findings were made from a conceptual review of this project. A more detailed review of the connection facilities and their cost will be identified in a future study phase. Further note that the cost estimate data contained in this document should be considered high level estimates since it was produced without a detailed engineering review. The applicant will be responsible for the actual cost of construction. ITO herein reserves the right to return to any issues in this document and, upon appropriate justification, request additional monies to complete any reinforcements to the transmission systems.

The total physical interconnection costs is given in the table below:

Description	Total Cost
Attachment Facilities	\$2,100,000
New Breaker	\$1,200,000
Total Physical Interconnection Costs	\$3,300,000

AG1-518 "Suffolk 230 kV" will interconnect with the Dominion transmission system. The primary POI is a direct connect to the Suffolk 230 kV substation.

To accommodate the proposed Project, Dominion Energy will add one new 230 kV breaker to the existing Suffolk 230 kV substation to allow for the proposed interconnection. Dominion will install one span of overhead 230 kV line to the point of interconnection ("POI") including 230 kV interconnection metering.

It is estimated to take 18-30 months to complete this work upon execution of an Interconnection Construction Service Agreement (ICSA). These preliminary cost estimates are based on typical engineering costs. A more detailed engineering cost estimates are normally done when the IC provides an exact site plan location for the generation substation during the Facility Study phase.

Remote Terminal Work: During the Facilities Study, ITO's System Protection Engineering Department will review transmission line protection as well as anti-islanding required to accommodate the new generation and interconnection substation. System Protection Engineering will determine the minimal acceptable protection requirements to reliably interconnect the proposed generating facility with the transmission system. The review is based on maintaining system reliability by reviewing ITO's protection requirements with the known transmission system configuration which includes generating facilities in the area. This review may determine that transmission line protection and communication upgrades are required at remote substations.

7 Schedule

The estimated schedule for the Attachment Facilities, Direct Connection and Non-Direct Connection work is identified in the “Transmission Owner Scope of Work” section of this report.

The estimated schedule for the required Network Impact Reinforcements is identified in the “System Reinforcements” section of this report.

These schedules will be more clearly identified in future study phases.

8 Transmission Owner Analysis

Dominion assessed the impact of the proposed AG1-518 for compliance with NERC Reliability Criteria on the Dominion Transmission System. The system was assessed using the summer 2024 AG1 case provided to Dominion by PJM.

When performing a generation analysis, Dominion’s main analysis includes load flow study results following a single contingency event for both normal and stressed system conditions. Dominion Criteria considers a transmission facility overloaded if it exceeds 94% of its emergency rating under normal and stressed system conditions. A full listing of Dominion’s Planning Criteria and interconnection requirements can be found in the Company’s Facility Connection Requirements which are publicly available at: <http://www.dominionenergy.com>.

The results of these studies evaluate the system under a limited set of operating conditions and do not guarantee the full delivery of the capacity and associated energy of this proposed generation facility under all operating conditions. NERC Planning and Operating Reliability Criteria allow for the re-dispatch of generating units to resolve projected and actual deficiencies in real time and planning studies. Specifically, in Planning Studies, NERC Planning Event 3 and 6 Contingency Conditions (Loss of generator, transmission circuit, transformer, shunt device, or Single Pole of a DC line followed by the loss of a generator, transmission circuit, transformer, shunt device or single pole of a DC line) allow for re-dispatch of generating units to resolve potential reliability deficiencies. For Dominion Planning Criteria the re-dispatch of generating units for these contingency conditions is allowed as long as the projected loading does not exceed 100% of a facility Load Dump Rating.

8.1 Power Flow Analysis

PJM performed a power flow analysis of the transmission system using a 2024 summer peak load flow model and the results were verified by Dominion. Additionally, Dominion performed an analysis of its transmission system and no further deficiencies were identified.

9 Interconnection Customer Requirements

9.1 System Protection

The IC must design its Customer Facilities in accordance with all applicable standards, including the standards in Dominion's "Dominion Energy Electric Transmission Generator Interconnection Requirements" documented in Dominion's Facility Interconnection Requirements "Exhibit C" located at: <https://www.dominionenergy.com/company/moving-energy/electric-transmission-access>. Preliminary Protection requirements will be provided as part of the Facilities Study. Detailed Protection Requirements will be provided once the project enters the construction phase.

9.2 Compliance Issues and Interconnection Customer Requirements

The proposed Customer Facilities must be designed in accordance with Dominion's "Dominion's Facility Interconnection Requirements" document located at: <https://www.dominionenergy.com/company/moving-energy/electric-transmission-access>. In particular, the IC is responsible for the following:

1. The purchase and installation of a fully rated protection device (circuit breaker, circuit switcher, fuse) to protect the IC's GSU transformer(s).
2. The purchase and installation of the minimum required Dominion generation interconnection relaying and control facilities as described in the System Protection section noted above. This includes over/under voltage protection, over/under frequency protection, and zero sequence voltage protection relays.
3. The purchase and installation of supervisory control and data acquisition ("SCADA") equipment to provide information in a compatible format to the Dominion Transmission System Control Center.
4. Compliance with the Dominion and PJM generator power factor and voltage control requirements.

The GSU(s) associated with the IC queue request shall meet the grounding requirements as noted in Dominion's "Dominion's Facility Interconnection Requirements" document located at: <https://www.dominionenergy.com/company/moving-energy/electric-transmission-access>.

The IC will also be required to meet all PJM, SERC, and NERC reliability criteria and operating procedures for standards compliance. For example, the IC will need to properly locate and report the over and under voltage and over and under frequency system protection elements for its units as well as the submission of the generator model and protection data required to satisfy the PJM and SERC audits. Failure to comply with these requirements may result in a disconnection of service if the violation is found to compromise the reliability of the Dominion system.

9.3 Power Factor Requirements

The IC shall design its non-synchronous Customer Facility with the ability to maintain a power factor of at least 0.95 leading (absorbing VARs) to 0.95 lagging (supplying VARs) measured at the high-side of the facility substation transformer(s) connected to the Dominion transmission system.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

The Interconnection Customer will be required to install equipment necessary to provide Revenue Metering (KWH, KVARH) and real time data (KW, KVAR) for IC's generating Resource. See PJM Manuals M-01 and M-14D, and PJM Tariff Section 8 of Attachment O.

10.2 Meteorological Data Reporting Requirements

The solar generation facility shall provide the Transmission Provider with site-specific meteorological data including:

- Back Panel temperature (Fahrenheit) - (Required for plants with Maximum Facility Output of 3 MW or higher)
- Irradiance (Watts/meter²) - (Required for plants with Maximum Facility Output of 3 MW or higher)
- Ambient air temperature (Fahrenheit) - (Accepted, not required)
- Wind speed (meters/second) - (Accepted, not required)
- Wind direction (decimal degrees from true north) - (Accepted, not required)

10.3 Interconnected Transmission Owner Requirements

The IC will be required to comply with all Interconnected Transmission Owner's revenue metering requirements for generation interconnection customers located at the following link:

<http://www.pjm.com/planning/design-engineering/to-tech-standards/>

11 Summer Peak - Load Flow Analysis - Primary POI

The Queue Project AG1-518 was evaluated as a 50.0 MW (Capacity 50.0 MW) injection at the Suffolk 230 kV substation in the Dominion area. Project AG1-518 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-518 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

11.1 Generation Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
163912564	314924	8SURREY	500.0	DVP	314903	8CHCKAHM	500.0	DVP	1	DVP_P1-2: LN 582	single	2442.12011719	99.65	100.09	DC	11.2

11.2 Multiple Facility Contingency

(Double Circuit Tower Line, Fault with a Stuck Breaker, and Bus Fault contingencies for the full energy output)

None

11.3 Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

None

11.4 Potential Congestion due to Local Energy Deliverability

PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
168874144	314537	6SUFFOLK	230.0	DVP	314928	8SUFFOLK	500.0	DVP	1	DVP_P1-3: 8SUFFOLK-TX#8	operation	893.187988281	113.74	115.81	DC	18.5
169063166	314537	6SUFFOLK	230.0	DVP	314928	8SUFFOLK	500.0	DVP	2	DVP_P1-3: 8SUFFOLK-TX#7	operation	906.253967285	112.33	114.38	DC	18.54
169797506	961610	AG1-000B TAP	230.0	DVP	942550	AE2-270 TAP	230.0	DVP	2	DVP_P1-2: LN 212	operation	678.679992676	99.87	100.08	DC	3.25

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
163912564	1	8SURRY 500.0 kV - 8CHCKAHM 500.0 kV Ckt 1	<u>DVP</u> n6324 (1522) : Replace Terminal Equipment at Surry and Chickahominy Substations Project Type : FAC Cost : \$4,000,000 Time Estimate : 16-18 Months	\$4,000,000
			TOTAL COST	\$4,000,000 ¹

11.6 Flow Gate Details - Primary POI

The following indices contain additional information about each facility presented in the body of the report. For each index, a description of the flowgate and its contingency was included for convenience. The intent of the indices is to provide more details on which projects/generators have contributions to the flowgate in question. All New Service Queue Requests, through the end of the Queue under study, that are contributors to a flowgate will be listed in the indices. Please note that there may be contributors that are subsequently queued after the queue under study that are not listed in the indices. Although this information is not used "as is" for cost allocation purposes, it can be used to gage the impact of other projects/generators. It should be noted the project/generator MW contributions presented in the body of the report are Full MW Impact contributions which are also noted in the indices column named "Full MW Impact", whereas the loading percentages reported in the body of the report, take into consideration the PJM Generator Deliverability Test rules such as commercial probability of each project as well as the ramping impact of "Adder" contributions. The MW Impact found and used in the analysis is shown in the indices column named "Gendeliv MW Impact".

11.6.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
163912564	314924	8SURREY	DVP	314903	8CHCKAHM	DVP	1	DVP_P1-2: LN 582	single	2442.12	99.65	100.09	DC	11.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	4.4436	Adder	5.23
313526	AB2-022 C	0.4765	80/20	0.4765
314295	6BIRDNECK	0.0579	80/20	0.0579
314491	3PENDLTN	0.4318	80/20	0.4318
314507	3THOMPSN	0.4288	80/20	0.4288
314572	3EMPORIA	0.2662	Adder	0.31
314589	3MURPHYS	0.0835	80/20	0.0835
314638	6ELIZ CT	0.2786	80/20	0.2786
314639	6TANGLEW	0.5049	80/20	0.5049
314643	3O INLET	0.5672	80/20	0.5672
315098	1CHESPKA	0.5680	80/20	0.5680
315099	1CHESPKB (Deactivation : 31/05/2019)	3.9380	80/20	3.9380
315103	1BRUNSWICKG2	6.9811	80/20	6.9811
315104	1BRUNSWICKG3	6.9811	80/20	6.9811
315105	1BRUNSWICKS1	14.5032	80/20	14.5032
315108	1ELIZAR1	4.2216	80/20	4.2216
315109	1ELIZAR2	4.1483	80/20	4.1483
315110	1ELIZAR3	4.2756	80/20	4.2756
315115	1S HAMPT1	1.4837	80/20	1.4837
315131	1EDGECEMA (Deactivation : 22/04/2019)	6.1901	Adder	7.28
315132	1EDGECEMB (Deactivation : 22/04/2019)	6.1901	Adder	7.28
315233	1SURREY 2	50.1613	80/20	50.1613
315241	1Z1-086 GT1	8.9941	80/20	8.9941
315242	1Z1-086 GT2	8.9941	80/20	8.9941
315243	1Z1-086 GT3	8.9941	80/20	8.9941
315244	1Z1-086 ST	15.6350	80/20	15.6350
315260	1GOSPORTA	0.4531	80/20	0.4531
315261	1GOSPORTB	0.5787	80/20	0.5787
315262	1GOSPORTC	0.4912	80/20	0.4912
315292	1DOMTR78	1.3954	80/20	1.3954
315293	1DOMTR9	7.2171	80/20	7.2171
315294	1DOMTR10	8.8445	80/20	8.8445
315602	1HOLLOMANSOL	1.4333	80/20	1.4333
315603	6AA1-139SOLA	3.0079	80/20	3.0079
315605	6W1-029WIND	1.3654	80/20	1.3654
315608	3AA2-088SOLA	0.9959	80/20	0.9959
315611	6Z1-036WIND	1.3134	80/20	1.3134
315614	AA2-178 C	1.7326	80/20	1.7326
316103	AB2-015 C	9.0110	80/20	9.0110

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	-63.6451	Adder	-74.88
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	-63.6451	Adder	-74.88
316114	AB2-068 ST (Withdrawn : 01/11/2021)	-110.2584	Adder	-129.72
316129	AC1-054 C	4.6037	Adder	5.42
316140	AB2-099 C (Suspended)	0.4855	Adder	0.57
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.2985	80/20	0.2985
316258	AE1-162 C	0.3243	80/20	0.3243
923991	AB2-040 C O1	4.8396	Adder	5.69
925121	AB2-169 C	1.0241	80/20	1.0241
925591	AC1-034 C	4.5622	Adder	5.37
926070	AC1-086 C	14.2503	Adder	16.77
926201	AC1-098 C	4.5236	Adder	5.32
926211	AC1-099 C	1.5159	Adder	1.78
926661	AC1-147 C	0.4804	80/20	0.4804
926754	AC1-161 C	53.5128	80/20	53.5128
927024	AC1-189 C	6.3187	Adder	7.43
927145	AC1-208 C	6.4061	Adder	7.54
932044	AC2-012 C	13.7735	80/20	13.7735
932591	AC2-079 C O1	4.2283	Adder	4.97
932631	AC2-084 C	6.4486	Adder	7.59
933294	AC2-141 C	53.5128	80/20	53.5128
933731	AC2-196 C	0.3921	80/20	0.3921
933991	AD1-023 C	14.1072	80/20	14.1072
934061	AD1-033 C	10.4164	80/20	10.4164
934331	AD1-057 C O1	6.7611	Adder	7.95
934521	AD1-076 C	59.5957	80/20	59.5957
934615	AD1-087 C	4.8006	Adder	5.65
935111	AD1-144 C	0.2955	80/20	0.2955
935171	AD1-152 C O1	5.2730	Adder	6.2
936401	AD2-051 C O1	8.8325	80/20	8.8325
936661	AD2-085 C	3.4010	80/20	3.4010
937221	AD2-160 C O1	8.0052	80/20	8.0052
937481	AD2-202 C O1	1.4061	Adder	1.65
938221	AE1-035 C	0.3584	80/20	0.3584
938494	AE1-068_C1	26.9691	80/20	26.9691
938497	AE1-068_C2	26.9691	80/20	26.9691
938504	AE1-069_C1	20.5535	80/20	20.5535
938507	AE1-069_C2	22.1616	80/20	22.1616
938535	AE1-072 C	23.7956	80/20	23.7956
938771	AE1-103 C	3.9285	80/20	3.9285
939414	AE1-173_C1	36.2359	80/20	36.2359
939415	AE1-173_C2	31.0594	80/20	31.0594
939416	AE1-173_C3	36.2359	80/20	36.2359
940061	AE2-000BC O1	5.8823	Adder	6.92
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	236.3073	80/20	236.3073
940471	AE2-031 C	29.3903	80/20	29.3903
940481	AE2-033 C	8.7398	Adder	10.28
940491	AE2-034 C	8.2366	80/20	8.2366

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940541	AE2-040	1.5245	Adder	1.79
940571	AE2-044 C	2.9881	Adder	3.52
940641	AE2-051 C O1	18.3645	80/20	18.3645
940891	AE2-078 C	1.2815	Adder	1.51
940901	AE2-079 C	1.2815	Adder	1.51
941031	AE2-094 C	35.4043	80/20	35.4043
941101	AE2-104 C O1	3.8712	80/20	3.8712
941281	AE2-122 C O1	38.9400	80/20	38.9400
941291	AE2-123 C O1	40.0183	80/20	40.0183
941301	AE2-124 C O1	36.4404	80/20	36.4404
941501	AE2-147 C	19.9710	80/20	19.9710
941591	AE2-156 O1	24.2790	80/20	24.2790
942131	AE2-225 C	2.6891	80/20	2.6891
942171	AE2-229 C	2.0168	80/20	2.0168
942341	AE2-247 C	1.4707	80/20	1.4707
942401	AE2-253 C	8.4201	80/20	8.4201
942471	AE2-260 C O1	8.6442	Adder	10.17
942931	AE2-313 C	31.7699	80/20	31.7699
943171	AE2-346 C	1.1653	Adder	1.37
943461	AF1-017 C	1.3306	80/20	1.3306
943611	AF1-032 C	2.1961	80/20	2.1961
943621	AF1-033 C	1.2815	Adder	1.51
944011	AF1-069 C	11.5679	80/20	11.5679
944141	AF1-082	1.9209	Adder	2.26
944581	AF1-123 C O1	70.2107	80/20	70.2107
944591	AF1-124 C O1	70.2107	80/20	70.2107
944601	AF1-125 C O1	70.2107	80/20	70.2107
944871	AF1-152 C	6.6570	80/20	6.6570
945711	AF1-236 C O1	90.1714	80/20	90.1714
945811	AF1-246 C O1	5.0305	Adder	5.92
946011	AF1-266	7.3159	Adder	8.61
946281	AF1-292 C	0.9353	Adder	1.1
957481	AF2-042 C	35.9320	Adder	42.27
957491	AF2-043 C	2.6891	80/20	2.6891
957521	AF2-046 C	16.3403	80/20	16.3403
957531	AF2-047 C	19.5718	80/20	19.5718
957631	AF2-057	4.8328	80/20	4.8328
957821	AF2-076 C	6.5742	80/20	6.5742
957861	AF2-080 C	5.7389	Adder	6.75
957871	AF2-081 C	13.5660	80/20	13.5660
958161	AF2-110 C	1.5960	80/20	1.5960
959511	AF2-242 C	6.0990	Adder	7.18
959751	AF2-266	5.4999	Adder	6.47
960081	AF2-299 C	1.5763	Adder	1.85
961091	AF2-400 C	0.4866	80/20	0.4866
961611	AG1-000B C	4.7107	Adder	10.46
961671	AG1-007 C	0.4619	Adder	1.03
961681	AG1-008 C	16.3730	80/20	16.3730
961851	AG1-027 C	19.1007	80/20	19.1007
961931	AG1-036 C	1.3239	80/20	1.3239
961941	AG1-037 C	0.2206	Adder	0.49
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.6175	Adder	1.37

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962331	AG1-082 C	0.8823	Adder	1.96
962341	AG1-083 C	0.8823	Adder	1.96
962351	AG1-084 C	0.7710	Adder	1.71
962361	AG1-085 C	0.7710	Adder	1.71
962491	AG1-098 C O1	3.9356	Adder	8.74
962561	AG1-105 C O1	3.3920	Adder	7.53
962571	AG1-106 C	2.1003	Adder	4.66
963041	AG1-153 C	2.2067	Adder	4.9
963111	AG1-160 C	4.9716	80/20	4.9716
963291	AG1-178 C O1	69.5014	80/20	69.5014
963301	AG1-179 C	1.7499	Adder	3.88
963311	AG1-180	0.8526	Adder	1.89
963351	AG1-184 O1	37.4436	80/20	37.4436
963821	AG1-235 C O1	33.2680	80/20	33.2680
964491	AG1-312 C O1	19.1654	80/20	19.1654
964501	AG1-313 C O1	1.8250	Adder	4.05
964801	AG1-343 C	5.7459	80/20	5.7459
964931	AG1-357 C	8.0706	Adder	17.91
964951	AG1-359 O1	37.2825	80/20	37.2825
965001	AG1-364 C O1	9.7040	80/20	9.7040
965181	AG1-383 C	3.8103	80/20	3.8103
965291	AG1-394 C	1.9708	80/20	1.9708
965601	AG1-428 C O1	1.4609	Adder	3.24
965631	AG1-431	52.2045	80/20	52.2045
965691	AG1-437 C O1	10.6902	80/20	10.6902
965701	AG1-438 C O1	10.6902	80/20	10.6902
965711	AG1-439 C O1	9.1780	Adder	20.37
965731	AG1-441 C	1.9761	Adder	4.39
965741	AG1-442 O1	6.2359	80/20	6.2359
965751	AG1-443 O1	6.2359	80/20	6.2359
965761	AG1-444 O1	4.8950	Adder	10.87
965771	AG1-445	1.3366	Adder	2.97
965781	AG1-446	1.3366	Adder	2.97
965811	AG1-449	20.6070	80/20	20.6070
966361	AG1-505 C	6.4333	Adder	14.28
966371	AG1-506 C	6.4333	Adder	14.28
966491	AG1-518 O1	11.2045	80/20	11.2045
966621	AG1-532 C	0.4511	Adder	1.0
966751	AG1-546 C	5.4220	Adder	12.04
966801	AG1-551 C	0.9663	Adder	2.14
966811	AG1-552 C	0.7762	Adder	1.72
966931	AG1-431A	39.2220	80/20	39.2220
WEC	WEC	0.4136	Confirmed LTF	0.4136
LGEE	LGEE	0.8545	Confirmed LTF	0.8545
CPL	CPL	6.2613	Confirmed LTF	6.2613
CBM-W2	CBM-W2	21.5398	Confirmed LTF	21.5398
NY	NY	1.0612	Confirmed LTF	1.0612
TVA	TVA	4.2602	Confirmed LTF	4.2602
SIGE	SIGE	0.3819	Confirmed LTF	0.3819
CBM-S2	CBM-S2	72.2866	Confirmed LTF	72.2866
CBM-S1	CBM-S1	1.0401	Confirmed LTF	1.0401
MEC	MEC	2.6838	Confirmed LTF	2.6838

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
LAGN	LAGN	5.3060	Confirmed LTF	5.3060
AA2-074	AA2-074	4.1324	LTF	4.1324
CBM-W1	CBM-W1	16.8240	Confirmed LTF	16.8240

11.7 Queue Dependencies

The Queue Projects below are listed in one or more indices for the overloads identified in your report. These projects contribute to the loading of the overloaded facilities identified in your report. The percent overload of a facility and cost allocation you may have towards a particular reinforcement could vary depending on the action of these earlier projects. The status of each project at the time of the analysis is presented in the table. This list may change as earlier projects withdraw or modify their requests.

Queue Number	Project Name	Status
AA1-139	Hickory-Shawboro 230kV	In Service
AA2-074	CPL-PJM	Confirmed
AA2-088	Boykins-Handsome 115kV	In Service
AA2-178	Mackeys 230kV	Partially in Service - Under Construction
AB1-173	Brink-Trego 115kV	Engineering and Procurement
AB2-015	Franklin 115kV	Engineering and Procurement
AB2-022	Elizabeth City 34.5kV	Engineering and Procurement
AB2-040	Brink 115kV	Engineering and Procurement
AB2-068	Chickahominy 500kV	Withdrawn
AB2-099	Ahoskie 34.5kV	Suspended
AB2-169	Pantago-Five Points 115kV	Partially in Service - Under Construction
AC1-034	Heartsease DP - Mayo Dunbar 115kV	Engineering and Procurement
AC1-054	Kerr Dam-Eatons Ferry 115 kV	Engineering and Procurement
AC1-086	Thelma 230kV	Active
AC1-098	Dawson-South Justice 115kV	Engineering and Procurement
AC1-099	Dawson-South Justice 115kV	Engineering and Procurement
AC1-147	Grassfield 34.5kV	Engineering and Procurement
AC1-161	Septa 500kV	Engineering and Procurement
AC1-189	Chinquapin-Everetts 230kV	Active
AC1-208	Cox-Whitakers 115kV	Engineering and Procurement
AC2-012	Grassfield-Great Bridge 115kV	Active
AC2-079	Ivor-Oak Ridge 115kV	Engineering and Procurement
AC2-084	Dawson-South Justice 115kV	Active
AC2-141	Septa 500kV	Active
AC2-196	Fentress 34.5kV	Engineering and Procurement
AD1-023	Cashie-Trowbridge 230 kV	Active
AD1-033	Fentress-Landstown 230 kV	Engineering and Procurement
AD1-057	Hornertown-Hathaway 230 kV	Active
AD1-076	Trowbridge 230 kV	Active
AD1-087	Clover-Sedge Hill 230 kV	Active
AD1-144	Kings Fork 34.5 kV	Partially in Service - Under Construction
AD1-152	Clover-Sedge Hill 230 kV	Active
AD2-051	Earleys – Northampton 230kV	Active
AD2-085	Myrtle-Windsor DP 115kV	Active
AD2-160	Hickory-Moyock 230kV	Active
AD2-202	Clover-Sedge Hill 230kV	Active
AD2-215	Kings Fork 34.5 kV	Withdrawn
AE1-035	Earleys 230 kV	Partially in Service - Under Construction
AE1-068	Carson-Rogers Rd 500 kV	Active
AE1-069	Carson-Rogers Road 500 kV	Active
AE1-072	Shawboro-Sligo 230 kV	Active
AE1-103	Holland-Union Camp 115 kV	Active
AE1-162	Smithfield 34.5 kV	Engineering and Procurement

Queue Number	Project Name	Status
AE1-173	Carson-Suffolk 500 kV	Active
AE2-000B	N/A	N/A
AE2-007	Chesapeake 230 kV	Withdrawn
AE2-031	Carson-Rawlings 500 kV	Active
AE2-033	Clubhouse-Sappony 230 kV	Active
AE2-034	Mackeys 230 kV	Active
AE2-040	Sapony 34.5 kV	Active
AE2-044	Anaconda-Dunbar 115 kV	Active
AE2-051	Carson-Septa 500 kV	Active
AE2-078	Poolesville 34.5 kV	Engineering and Procurement
AE2-079	Poolesville 34.5 kV	Engineering and Procurement
AE2-094	Carson-Rogers Road 500 kV	Active
AE2-104	Suffolk 115 kV	Active
AE2-122	Birdneck-Landstown 230 kV	Active
AE2-123	Birdneck-Landstown 230 kV	Active
AE2-124	Landstown 230 kV	Active
AE2-147	Swamp 230 kV	Active
AE2-156	Yadkin 115 kV	Active
AE2-225	Suffolk 34 kV	Engineering and Procurement
AE2-229	Suffolk 34 kV	Engineering and Procurement
AE2-247	Myrtle-Windsor 115 kV	Active
AE2-253	Hickory-Moyock 230 kV	Active
AE2-260	Clubhouse 230 kV	Active
AE2-313	Carson-Rawlings 500 kV	Active
AE2-346	Ahoskie 34.5 kV	Active
AF1-017	Myrtle-Windsor 115 kV	Active
AF1-032	Suffolk 34.5 kV	Engineering and Procurement
AF1-033	Poolesville 34 kV	Engineering and Procurement
AF1-069	Carson-Rogers Rd 500 kV	Active
AF1-082	Heartsease-Mayo Dunbar DP	Active
AF1-123	Fentress 500 kV	Active
AF1-124	Fentress 500 kV	Active
AF1-125	Fentress 500 kV	Active
AF1-152	Swamp 230 kV	Active
AF1-236	Mackeys 230 kV	Active
AF1-246	Clover-Rawlings 500 kV	Active
AF1-266	Clubhouse-Sapony 230 kV	Active
AF1-292	Fields 34.5kV	Active
AF2-042	Clover-Rawlings 500 kV	Active
AF2-043	Suffolk 34.5 kV	Engineering and Procurement
AF2-046	Tunis-Mapleton 115 kV	Active
AF2-047	Creswell-Riders Creek 115 kV	Active
AF2-057	Grassfield 34.5 kV	Active
AF2-076	Suffolk-Nucor Steel 230 kV	Active
AF2-080	Chinquapin-Everetts 230 kV	Active
AF2-081	Moyock 230 kV	Active
AF2-110	Suffolk 115 kV	Active
AF2-242	Wharton 115 kV	Active
AF2-266	Clover 230 kV	Active
AF2-299	Fields 34.5 kV	Active
AF2-400	Franklin 13.2 kV	Engineering and Procurement
AG1-000B	N/A	N/A

Queue Number	Project Name	Status
AG1-007	Tar River 12.5 kV	Active
AG1-008	Tunis-Mapleton 115 kV	Active
AG1-027	Suffolk-Holland 115 kV	Active
AG1-036	Tunis 34.5 kV	Active
AG1-037	Ahoskie 34.5 kV	Active
AG1-081	Poolesville 34.5 kV	Withdrawn
AG1-082	Ahoskie 34.5 kV	Active
AG1-083	Ahoskie 34.5 kV	Active
AG1-084	Earlys 34.5 kV	Active
AG1-085	Earlys 34.5	Active
AG1-098	Briery-Clover 230 kV	Active
AG1-105	Clover-Sedge Hill 230 kV	Active
AG1-106	Thelma 230 kV	Active
AG1-153	Heritage 500 kV	Active
AG1-160	Rogers Road 500 kV	Active
AG1-178	Carson-Septa 500 kV	Active
AG1-179	Brunswick 69 kV	Active
AG1-180	Brunswick 69 kV	Active
AG1-184	Carson-Septa 500 kV	Active
AG1-235	Fentress-Sligo 230 kV	Active
AG1-312	Earleys-Cashie 230 kV	Active
AG1-313	Jackson DP-Occoneechee 115 kV	Active
AG1-343	Boykins-Murphy 115 kV	Active
AG1-357	Clover-Rawlings 500 kV	Active
AG1-359	Fentress 230 kV	Active
AG1-364	Deep Creek 115 kV	Active
AG1-383	Hickory 34.5 kV	Active
AG1-394	Boykins 34.5 kV	Active
AG1-428	Danieltown 69 kV	Active
AG1-431	Mackeys 230 kV	Active
AG1-431A	Mackeys 230 kV	Active
AG1-437	Cashie-Earleys 230 kV	Active
AG1-438	Cashie-Earleys 230 kV	Active
AG1-439	Chinquapin 230 kV	Active
AG1-441	Palmer Springs 115 kV	Active
AG1-442	Cashie-Earleys 230 kV	Active
AG1-443	Cashie-Earleys 230 kV	Active
AG1-444	Chinquapin 230 kV	Active
AG1-445	Palmer Spring 115 kV	Active
AG1-446	Palmer Springs 115 kV	Active
AG1-449	Rawlings-Carson 500 kV	Active
AG1-505	Rawlings-Clover 500 kV	Active
AG1-506	Rawlings-Clover 500 kV	Active
AG1-518	Suffolk 230 kV	Active
AG1-532	Fields 34.5 kV	Active
AG1-546	Ebony-Elams Road 115 kV	Active
AG1-551	Parme 12.5 kV	Active
AG1-552	Carolina 13.2 kV	Active
W1-029	Winfall 230kV	In Service
Z1-036	WinFall-Chowan 230kV	Suspended
Z1-086	Heritage-Carson	In Service

11.8 Contingency Descriptions - Primary POI

Contingency Name	Contingency Definition
DVP_P1-3: 8SUFFOLK-TX#7	CONTINGENCY 'DVP_P1-3: 8SUFFOLK-TX#7' OPEN BRANCH FROM BUS 314537 TO BUS 314928 CKT 1 /* 6SUFFOLK 230.00 - 8SUFFOLK 500.00 END
DVP_P1-2: LN 212	CONTINGENCY 'DVP_P1-2: LN 212' OPEN BRANCH FROM BUS 313896 TO BUS 314538 CKT 1 /* 6COLONIAL TR230.00 - 6SURREY 230.00 END
DVP_P1-3: 8SUFFOLK-TX#8	CONTINGENCY 'DVP_P1-3: 8SUFFOLK-TX#8' OPEN BRANCH FROM BUS 314537 TO BUS 314928 CKT 2 /* 6SUFFOLK 230.00 - 8SUFFOLK 500.00 END
DVP_P1-2: LN 582	CONTINGENCY 'DVP_P1-2: LN 582' OPEN BRANCH FROM BUS 314924 TO BUS 314931 CKT 1 /* 8SURREY 500.00 - 8SKIFF CREEK500.00 END

12 Short Circuit Analysis - Primary POI

The following Breakers are overdutied:

None

13 Summer Peak - Load Flow Analysis - Secondary POI

The Queue Project AG1-518 was evaluated as a 50.0 MW (Capacity 50.0 MW) injection tapping the Suffolk to Sunbury 230 kV line in the Dominion area. Project AG1-518 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-518 was studied with a commercial probability of 53.0 %. Potential network impacts were as follows:

13.1 Generation Deliverability

(Single or N-1 contingencies for the Capacity portion only of the interconnection)

None

13.2 Multiple Facility Contingency

(Double Circuit Tower Line, Fault with a Stuck Breaker, and Bus Fault contingencies for the full energy output)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
174123191	314266	6NORTHAMPT ON	230.0	DVP	314599	6ROA VAL	230.0	DVP	1	DVP_P 4-2: 246T247	breaker	671.0	99.85	100.64	DC	5.35
174123192	314599	6ROA VAL	230.0	DVP	314561	6CAROLN A	230.0	DVP	1	DVP_P 4-2: 246T247	breaker	671.0	99.8	100.6	DC	5.35

13.3 Contribution to Previously Identified Overloads

(This project contributes to the following contingency overloads, i.e. "Network Impacts", identified for earlier generation or transmission interconnection projects in the PJM Queue)

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC D C	MW IMPAC T
174334700	313851	6ECITYDP 2	230.0	DVP	314638	6ELIZ CT	230.0	DVP	1	DVP_P 4-2: 246T247	breaker	1204.0	169.54	172.35	DC	33.77
175590023	313851	6ECITYDP 2	230.0	DVP	314638	6ELIZ CT	230.0	DVP	1	DVP_P 1-2: LN 247-B	single	984.179992676	109.73	113.07	DC	32.84
174502022	314537	6SUFFOLK	230.0	DVP	314928	8SUFFOLK	500.0	DVP	2	DVP_P 4-2: 211042	breaker	1004.29998779	135.46	137.7	DC	22.45
174502075	314537	6SUFFOLK	230.0	DVP	314928	8SUFFOLK	500.0	DVP	1	DVP_P 4-2: 28942	breaker	1053.5	122.02	124.14	DC	22.33
174334771	314550	6HICKORY	230.0	DVP	314466	6FENTRES	230.0	DVP	1	DVP_P 4-2: 246T247	breaker	699.0	141.27	143.74	DC	17.23
173932247	314561	6CAROLN A	230.0	DVP	314583	6LAKEVE W	230.0	DVP	1	DVP_P 4-2: 246T247	breaker	459.0	173.3	173.76	DC	4.67
174122869	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBR O	230.0	DVP	1	DVP_P 4-2: 246T247	breaker	699.0	282.11	286.94	DC	33.76
175153654	314638	6ELIZ CT	230.0	DVP	314647	6SHAWBR O	230.0	DVP	1	DVP_P 1-2: LN 247-B	single	571.520019531	180.79	186.53	DC	32.83
174334699	314639	6TANGLE W	230.0	DVP	313851	6ECITYDP 2	230.0	DVP	1	DVP_P 4-2: 246T247	breaker	1204.0	169.55	172.35	DC	33.77

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
175590020	314639	6TANGLEW	230.0	DVP	313851	6ECITYDP2	230.0	DVP	1	DVP_P1-2: LN 247-B	single	984.179992676	109.74	113.08	DC	32.84
174334832	314645	6SLIGOL269	230.0	DVP	963820	AG1-235 TAP	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	125.98	128.34	DC	16.51
174334896	314647	6SHAWBRO	230.0	DVP	938530	AE1-072_TAP	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	115.93	118.29	DC	16.51
174334685	314651	6WINFALL	230.0	DVP	314639	6TANGLEW	230.0	DVP	1	DVP_P4-2: 246T247	breaker	1163.0	179.37	182.27	DC	33.77
175332190	314651	6WINFALL	230.0	DVP	314639	6TANGLEW	230.0	DVP	1	DVP_P1-2: LN 247-B	single	898.640014648	124.59	128.24	DC	32.84
174334822	938530	AE1-072_TAP	230.0	DVP	314645	6SLIGOL269	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	126.85	129.21	DC	16.51
174334739	963820	AG1-235 TAP	230.0	DVP	314466	6FENTRES	230.0	DVP	1	DVP_P4-2: 246T247	breaker	699.0	153.12	155.48	DC	16.51
175590017	966490	AG1-518 TAP	230.0	DVP	314537	6SUFFOLK	230.0	DVP	1	DVP_P1-2: LN 2020	single	984.179992676	105.6	110.39	DC	47.09

13.4 Potential Congestion due to Local Energy Deliverability

PJM also studied the delivery of the energy portion of this interconnection request. Any problems identified below are likely to result in operational restrictions to the project under study. The developer can proceed with network upgrades to eliminate the operational restriction at their discretion by submitting a Merchant Transmission Interconnection request.

Note: Only the most severely overloaded conditions are listed below. There is no guarantee of full delivery of energy for this project by fixing only the conditions listed in this section. With a Transmission Interconnection Request, a subsequent analysis will be performed which shall study all overload conditions associated with the overloaded element(s) identified.

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
175590022	313851	6ECITYDP2	230.0	DVP	314638	6ELIZ CT	230.0	DVP	1	DVP_P1-2: LN 247-B	operation	984.179992676	169.21	172.55	DC	32.84
168874144	314537	6SUFFOLK	230.0	DVP	314928	8SUFFOLK	500.0	DVP	1	DVP_P1-3: 8SUFFOLK-TX#8	operation	893.187988281	113.75	115.76	DC	17.96
169063166	314537	6SUFFOLK	230.0	DVP	314928	8SUFFOLK	500.0	DVP	2	DVP_P1-3: 8SUFFOLK-TX#7	operation	906.253967285	112.33	114.32	DC	18.0

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CK T ID	CONT NAME	Type	Rating MVA	PRE PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC D C	MW IMPA CT
175153653	314638	6ELIZ CT	230.0	DVP	314647	6SHAWB RO	230.0	DVP	1	DVP_P1-2: LN 247-B	operati on	571.520019531	282.8	288.54	DC	32.83
175590019	314639	6TANGLE W	230.0	DVP	313851	6ECITYDP 2	230.0	DVP	1	DVP_P1-2: LN 247-B	operati on	984.179992676	169.22	172.56	DC	32.84
175332188	314651	6WINFAL L	230.0	DVP	314639	6TANGLE W	230.0	DVP	1	DVP_P1-2: LN 247-B	operati on	898.640014648	189.29	192.94	DC	32.84
175590016	966490	AG1-518 TAP	230.0	DVP	314537	6SUFFOL K	230.0	DVP	1	DVP_P1-2: LN 2020	operati on	984.179992676	168.92	173.7	DC	47.09

13.5 Flow Gate Details - Secondary POI

The following indices contain additional information about each facility presented in the body of the report. For each index, a description of the flowgate and its contingency was included for convenience. The intent of the indices is to provide more details on which projects/generators have contributions to the flowgate in question. All New Service Queue Requests, through the end of the Queue under study, that are contributors to a flowgate will be listed in the indices. Please note that there may be contributors that are subsequently queued after the queue under study that are not listed in the indices. Although this information is not used "as is" for cost allocation purposes, it can be used to gage the impact of other projects/generators. It should be noted the project/generator MW contributions presented in the body of the report are Full MW Impact contributions which are also noted in the indices column named "Full MW Impact", whereas the loading percentages reported in the body of the report, take into consideration the PJM Generator Deliverability Test rules such as commercial probability of each project as well as the ramping impact of "Adder" contributions. The MW Impact found and used in the analysis is shown in the indices column named "Gendeliv MW Impact".

13.5.1 Index 1

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174123191	314266	6NORTHAMPTON	DVP	314599	6ROA VAL	DVP	1	DVP_P4-2: 246T247	breaker	671.0	99.85	100.64	DC	5.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	-2.8756	Adder	-3.38
314582	3KELFORD	0.3479	50/50	0.3479
314594	6PLYMOTH	0.1114	50/50	0.1114
315292	1DOMTR78	1.5746	50/50	1.5746
315293	1DOMTR9	8.1441	50/50	8.1441
315294	1DOMTR10	9.9805	50/50	9.9805
315602	1HOLLOMANSOL	2.6524	50/50	2.6524
315605	6W1-029WIND	0.6586	50/50	0.6586
315611	6Z1-036WIND	0.8067	50/50	0.8067
315614	AA2-178 C	1.6113	50/50	1.6113
316140	AB2-099 C (Suspended)	0.6601	50/50	0.6601
316141	AB2-099 E (Suspended)	0.2829	50/50	0.2829
900672	V4-068 E	0.1264	Adder	0.15
901082	W1-029 E	27.9374	50/50	27.9374
913392	Y1-086 E	0.7604	Adder	0.89
916042	Z1-036 E (Suspended)	34.2590	50/50	34.2590
917122	Z2-027 E	0.4296	Adder	0.51
917332	Z2-043 E	1.0377	50/50	1.0377
917512	Z2-088 E OP1	3.0676	Adder	3.61
918512	AA1-065 E OP	7.5276	50/50	7.5276
918532	AA1-067 E	0.6953	50/50	0.6953
920692	AA2-178 E	4.3769	50/50	4.3769
923832	AB2-022 E	0.4292	Adder	0.5
923991	AB2-040 C O1	-3.1319	Adder	-3.68
925121	AB2-169 C	1.1336	50/50	1.1336
925122	AB2-169 E	6.4484	50/50	6.4484
926201	AC1-098 C	1.7779	Adder	2.09
926202	AC1-098 E	1.0592	Adder	1.25
926211	AC1-099 C	0.5958	Adder	0.7
926212	AC1-099 E	0.3499	Adder	0.41
927024	AC1-189 C	4.5104	Adder	5.31
927025	AC1-189 E	2.2468	Adder	2.64
932631	AC2-084 C	2.5345	Adder	2.98
932632	AC2-084 E	1.2483	Adder	1.47
933991	AD1-023 C	18.5804	50/50	18.5804
933992	AD1-023 E	10.1152	50/50	10.1152
934521	AD1-076 C	68.2289	50/50	68.2289
934522	AD1-076 E	34.7421	50/50	34.7421
936401	AD2-051 C O1	17.1474	50/50	17.1474
936402	AD2-051 E O1	7.3629	50/50	7.3629
938221	AE1-035 C	0.6632	50/50	0.6632

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938222	AE1-035 E	2.0701	50/50	2.0701
940491	AE2-034 C	7.6595	50/50	7.6595
940492	AE2-034 E	3.2827	50/50	3.2827
940542	AE2-040 BAT	0.9656	Merchant Transmission	0.9656
941501	AE2-147 C	9.6336	50/50	9.6336
941502	AE2-147 E	6.4224	50/50	6.4224
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2287	50/50	0.2287
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.7806	50/50	0.7806
943171	AE2-346 C	1.5843	50/50	1.5843
943172	AE2-346 E	0.6790	50/50	0.6790
943912	AF1-059 BAT	5.6891	Merchant Transmission	5.6891
944871	AF1-152 C	3.2112	50/50	3.2112
944872	AF1-152 E	2.1408	50/50	2.1408
945711	AF1-236 C O1	83.8537	50/50	83.8537
945712	AF1-236 E O1	51.7931	50/50	51.7931
946012	AF1-266 BAT	5.1286	Merchant Transmission	5.1286
957521	AF2-046 C	10.3423	50/50	10.3423
957522	AF2-046 E	5.2022	50/50	5.2022
957531	AF2-047 C	18.2005	50/50	18.2005
957532	AF2-047 E	9.1550	50/50	9.1550
957821	AF2-076 C	9.4095	50/50	9.4095
957822	AF2-076 E	6.2730	50/50	6.2730
957861	AF2-080 C	4.0965	Adder	4.82
957862	AF2-080 E	1.8160	Adder	2.14
959511	AF2-242 C	7.8278	50/50	7.8278
959512	AF2-242 E	6.0883	50/50	6.0883
961681	AG1-008 C	10.3630	50/50	10.3630
961682	AG1-008 E	5.1815	50/50	5.1815
961931	AG1-036 C	1.2052	50/50	1.2052
961932	AG1-036 E	0.8035	50/50	0.8035
961941	AG1-037 C	0.5658	50/50	0.5658
961942	AG1-037 E	0.3772	50/50	0.3772
962331	AG1-082 C	2.2633	50/50	2.2633
962332	AG1-082 E	1.5089	50/50	1.5089
962341	AG1-083 C	2.2633	50/50	2.2633
962342	AG1-083 E	1.5089	50/50	1.5089
962351	AG1-084 C	2.3417	50/50	2.3417
962352	AG1-084 E	1.5611	50/50	1.5611
962361	AG1-085 C	2.3417	50/50	2.3417
962362	AG1-085 E	1.5611	50/50	1.5611
963312	AG1-180 BAT	1.0823	Merchant Transmission	1.0823
964491	AG1-312 C O1	34.0032	50/50	34.0032
964492	AG1-312 E O1	8.5008	50/50	8.5008
965631	AG1-431	48.5469	50/50	48.5469
965691	AG1-437 C O1	15.6036	50/50	15.6036
965692	AG1-437 E O1	10.4024	50/50	10.4024
965701	AG1-438 C O1	15.6036	50/50	15.6036
965702	AG1-438 E O1	10.4024	50/50	10.4024
965711	AG1-439 C O1	4.9168	Adder	10.91
965712	AG1-439 E O1	3.2778	Adder	7.28
965741	AG1-442 O1	9.1021	50/50	9.1021

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965751	AG1-443 O1	9.1021	50/50	9.1021
965761	AG1-444 O1	2.6223	Adder	5.82
966491	AG1-518 O2	5.3520	50/50	5.3520
966801	AG1-551 C	2.3069	50/50	2.3069
966802	AG1-551 E	0.9887	50/50	0.9887
966931	AG1-431A	36.4740	50/50	36.4740
WEC	WEC	0.0536	Confirmed LTF	0.0536
LGEE	LGEE	0.1074	Confirmed LTF	0.1074
CPL	CPL	0.7357	Confirmed LTF	0.7357
CBM-W2	CBM-W2	2.3296	Confirmed LTF	2.3296
NY	NY	0.0260	Confirmed LTF	0.0260
TVA	TVA	0.4340	Confirmed LTF	0.4340
O-066	O-066	0.4105	Confirmed LTF	0.4105
SIGE	SIGE	0.0257	Confirmed LTF	0.0257
CBM-S2	CBM-S2	7.1723	Confirmed LTF	7.1723
CBM-S1	CBM-S1	0.1083	Confirmed LTF	0.1083
G-007	G-007	0.0651	Confirmed LTF	0.0651
MEC	MEC	0.3194	Confirmed LTF	0.3194
LAGN	LAGN	0.5478	Confirmed LTF	0.5478
CBM-W1	CBM-W1	2.2853	Confirmed LTF	2.2853

13.5.2 Index 2

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174123192	314599	6ROA VAL	DVP	314561	6CAROLNA	DVP	1	DVP_P4-2: 246T247	breaker	671.0	99.8	100.6	DC	5.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	-2.8756	Adder	-3.38
314582	3KELFORD	0.3479	50/50	0.3479
314594	6PLYMOTH	0.1114	50/50	0.1114
315292	1DOMTR78	1.5746	50/50	1.5746
315293	1DOMTR9	8.1441	50/50	8.1441
315294	1DOMTR10	9.9805	50/50	9.9805
315602	1HOLLOMANSOL	2.6524	50/50	2.6524
315605	6W1-029WIND	0.6586	50/50	0.6586
315611	6Z1-036WIND	0.8067	50/50	0.8067
315614	AA2-178 C	1.6113	50/50	1.6113
316140	AB2-099 C (Suspended)	0.6601	50/50	0.6601
316141	AB2-099 E (Suspended)	0.2829	50/50	0.2829
900672	V4-068 E	0.1264	Adder	0.15
901082	W1-029 E	27.9374	50/50	27.9374
913392	Y1-086 E	0.7604	Adder	0.89
916042	Z1-036 E (Suspended)	34.2590	50/50	34.2590
917122	Z2-027 E	0.4296	Adder	0.51
917332	Z2-043 E	1.0377	50/50	1.0377
917512	Z2-088 E OP1	3.0676	Adder	3.61
918512	AA1-065 E OP	7.5276	50/50	7.5276
918532	AA1-067 E	0.6953	50/50	0.6953
920692	AA2-178 E	4.3769	50/50	4.3769
923832	AB2-022 E	0.4292	Adder	0.5
923991	AB2-040 C O1	-3.1319	Adder	-3.68
925121	AB2-169 C	1.1336	50/50	1.1336
925122	AB2-169 E	6.4484	50/50	6.4484
926201	AC1-098 C	1.7779	Adder	2.09
926202	AC1-098 E	1.0592	Adder	1.25
926211	AC1-099 C	0.5958	Adder	0.7
926212	AC1-099 E	0.3499	Adder	0.41
927024	AC1-189 C	4.5104	Adder	5.31
927025	AC1-189 E	2.2468	Adder	2.64
932631	AC2-084 C	2.5345	Adder	2.98
932632	AC2-084 E	1.2483	Adder	1.47
933991	AD1-023 C	18.5804	50/50	18.5804
933992	AD1-023 E	10.1152	50/50	10.1152
934521	AD1-076 C	68.2289	50/50	68.2289
934522	AD1-076 E	34.7421	50/50	34.7421
936401	AD2-051 C O1	17.1474	50/50	17.1474
936402	AD2-051 E O1	7.3629	50/50	7.3629
938221	AE1-035 C	0.6632	50/50	0.6632

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938222	AE1-035 E	2.0701	50/50	2.0701
940491	AE2-034 C	7.6595	50/50	7.6595
940492	AE2-034 E	3.2827	50/50	3.2827
940542	AE2-040 BAT	0.9656	Merchant Transmission	0.9656
941501	AE2-147 C	9.6336	50/50	9.6336
941502	AE2-147 E	6.4224	50/50	6.4224
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2287	50/50	0.2287
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.7806	50/50	0.7806
943171	AE2-346 C	1.5843	50/50	1.5843
943172	AE2-346 E	0.6790	50/50	0.6790
943912	AF1-059 BAT	5.6891	Merchant Transmission	5.6891
944871	AF1-152 C	3.2112	50/50	3.2112
944872	AF1-152 E	2.1408	50/50	2.1408
945711	AF1-236 C O1	83.8537	50/50	83.8537
945712	AF1-236 E O1	51.7931	50/50	51.7931
946012	AF1-266 BAT	5.1286	Merchant Transmission	5.1286
957521	AF2-046 C	10.3423	50/50	10.3423
957522	AF2-046 E	5.2022	50/50	5.2022
957531	AF2-047 C	18.2005	50/50	18.2005
957532	AF2-047 E	9.1550	50/50	9.1550
957821	AF2-076 C	9.4095	50/50	9.4095
957822	AF2-076 E	6.2730	50/50	6.2730
957861	AF2-080 C	4.0965	Adder	4.82
957862	AF2-080 E	1.8160	Adder	2.14
959511	AF2-242 C	7.8278	50/50	7.8278
959512	AF2-242 E	6.0883	50/50	6.0883
961681	AG1-008 C	10.3630	50/50	10.3630
961682	AG1-008 E	5.1815	50/50	5.1815
961931	AG1-036 C	1.2052	50/50	1.2052
961932	AG1-036 E	0.8035	50/50	0.8035
961941	AG1-037 C	0.5658	50/50	0.5658
961942	AG1-037 E	0.3772	50/50	0.3772
962331	AG1-082 C	2.2633	50/50	2.2633
962332	AG1-082 E	1.5089	50/50	1.5089
962341	AG1-083 C	2.2633	50/50	2.2633
962342	AG1-083 E	1.5089	50/50	1.5089
962351	AG1-084 C	2.3417	50/50	2.3417
962352	AG1-084 E	1.5611	50/50	1.5611
962361	AG1-085 C	2.3417	50/50	2.3417
962362	AG1-085 E	1.5611	50/50	1.5611
963312	AG1-180 BAT	1.0823	Merchant Transmission	1.0823
964491	AG1-312 C O1	34.0032	50/50	34.0032
964492	AG1-312 E O1	8.5008	50/50	8.5008
965631	AG1-431	48.5469	50/50	48.5469
965691	AG1-437 C O1	15.6036	50/50	15.6036
965692	AG1-437 E O1	10.4024	50/50	10.4024
965701	AG1-438 C O1	15.6036	50/50	15.6036
965702	AG1-438 E O1	10.4024	50/50	10.4024
965711	AG1-439 C O1	4.9168	Adder	10.91
965712	AG1-439 E O1	3.2778	Adder	7.28
965741	AG1-442 O1	9.1021	50/50	9.1021

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965751	AG1-443 O1	9.1021	50/50	9.1021
965761	AG1-444 O1	2.6223	Adder	5.82
966491	AG1-518 O2	5.3520	50/50	5.3520
966801	AG1-551 C	2.3069	50/50	2.3069
966802	AG1-551 E	0.9887	50/50	0.9887
966931	AG1-431A	36.4740	50/50	36.4740
WEC	WEC	0.0536	Confirmed LTF	0.0536
LGEE	LGEE	0.1074	Confirmed LTF	0.1074
CPL	CPL	0.7357	Confirmed LTF	0.7357
CBM-W2	CBM-W2	2.3296	Confirmed LTF	2.3296
NY	NY	0.0260	Confirmed LTF	0.0260
TVA	TVA	0.4340	Confirmed LTF	0.4340
O-066	O-066	0.4105	Confirmed LTF	0.4105
SIGE	SIGE	0.0257	Confirmed LTF	0.0257
CBM-S2	CBM-S2	7.1723	Confirmed LTF	7.1723
CBM-S1	CBM-S1	0.1083	Confirmed LTF	0.1083
G-007	G-007	0.0651	Confirmed LTF	0.0651
MEC	MEC	0.3194	Confirmed LTF	0.3194
LAGN	LAGN	0.5478	Confirmed LTF	0.5478
CBM-W1	CBM-W1	2.2853	Confirmed LTF	2.2853

13.5.3 Index 3

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334700	313851	6ECITYDP2	DVP	314638	6ELIZ CT	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	169.54	172.35	DC	33.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314582	3KELFORD	0.3274	50/50	0.3274
314589	3MURPHYS	0.0528	50/50	0.0528
314594	6PLYMOTH	0.2090	50/50	0.2090
314639	6TANGLEW	1.6344	50/50	1.6344
315292	1DOMTR78	2.5848	50/50	2.5848
315293	1DOMTR9	13.3689	50/50	13.3689
315294	1DOMTR10	16.3835	50/50	16.3835
315601	1CONETOE2SOL	1.0568	50/50	1.0568
315602	1HOLLOMANSOL	1.7275	50/50	1.7275
315605	6W1-029WIND	4.1557	50/50	4.1557
315606	3AA2-053SOLA	0.9032	50/50	0.9032
315611	6Z1-036WIND	3.7364	50/50	3.7364
315614	AA2-178 C	4.0828	50/50	4.0828
316140	AB2-099 C (Suspended)	0.5434	50/50	0.5434
316141	AB2-099 E (Suspended)	0.2329	50/50	0.2329
900672	V4-068 E	0.1835	50/50	0.1835
901082	W1-029 E	176.2794	50/50	176.2794
916042	Z1-036 E (Suspended)	158.6744	50/50	158.6744
917122	Z2-027 E	4.4397	50/50	4.4397
917332	Z2-043 E	0.9765	50/50	0.9765
917342	Z2-044 E	0.2876	Adder	0.34
917512	Z2-088 E OP1	6.2689	50/50	6.2689
918512	AA1-065 E OP	4.9027	50/50	4.9027
918532	AA1-067 E	0.7268	50/50	0.7268
919692	AA2-053 E OP	2.3506	50/50	2.3506
919702	AA2-057 E OP	1.7609	Adder	2.07
920592	AA2-165 E	0.2420	Adder	0.28
920692	AA2-178 E	11.0906	50/50	11.0906
923262	AB1-132 C OP (Suspended)	7.0872	Adder	8.34
923263	AB1-132 E OP (Suspended)	3.0374	Adder	3.57
925121	AB2-169 C	1.6676	50/50	1.6676
925122	AB2-169 E	9.4857	50/50	9.4857
926070	AC1-086 C	10.4367	Adder	12.28
926071	AC1-086 E	4.7501	Adder	5.59
926201	AC1-098 C	4.4439	50/50	4.4439
926202	AC1-098 E	2.6475	50/50	2.6475
926211	AC1-099 C	1.4892	50/50	1.4892
926212	AC1-099 E	0.8746	50/50	0.8746
927024	AC1-189 C	7.3591	50/50	7.3591
927025	AC1-189 E	3.6657	50/50	3.6657

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927145	AC1-208 C	5.6796	50/50	5.6796
927146	AC1-208 E	2.5117	50/50	2.5117
932631	AC2-084 C	6.3350	50/50	6.3350
932632	AC2-084 E	3.1202	50/50	3.1202
933991	AD1-023 C	25.7335	50/50	25.7335
933992	AD1-023 E	14.0093	50/50	14.0093
934331	AD1-057 C O1	4.9218	Adder	5.79
934332	AD1-057 E O1	2.6255	Adder	3.09
934521	AD1-076 C	120.6153	50/50	120.6153
934522	AD1-076 E	61.4171	50/50	61.4171
936401	AD2-051 C O1	10.5528	50/50	10.5528
936402	AD2-051 E O1	4.5313	50/50	4.5313
938221	AE1-035 C	0.4319	50/50	0.4319
938222	AE1-035 E	1.3482	50/50	1.3482
940491	AE2-034 C	19.4086	50/50	19.4086
940492	AE2-034 E	8.3180	50/50	8.3180
941501	AE2-147 C	60.7860	50/50	60.7860
941502	AE2-147 E	40.5240	50/50	40.5240
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1767	50/50	0.1767
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.6028	50/50	0.6028
943171	AE2-346 C	1.3043	50/50	1.3043
943172	AE2-346 E	0.5590	50/50	0.5590
944871	AF1-152 C	20.2620	50/50	20.2620
944872	AF1-152 E	13.5080	50/50	13.5080
945711	AF1-236 C O1	212.4782	50/50	212.4782
945712	AF1-236 E O1	131.2392	50/50	131.2392
957521	AF2-046 C	11.3123	50/50	11.3123
957522	AF2-046 E	5.6902	50/50	5.6902
957531	AF2-047 C	46.1186	50/50	46.1186
957532	AF2-047 E	23.1979	50/50	23.1979
957821	AF2-076 C	6.1275	50/50	6.1275
957822	AF2-076 E	4.0850	50/50	4.0850
957861	AF2-080 C	6.6838	50/50	6.6838
957862	AF2-080 E	2.9629	50/50	2.9629
959511	AF2-242 C	10.4908	50/50	10.4908
959512	AF2-242 E	8.1595	50/50	8.1595
961671	AG1-007 C	0.9044	50/50	0.9044
961672	AG1-007 E	0.5051	50/50	0.5051
961681	AG1-008 C	11.3350	50/50	11.3350
961682	AG1-008 E	5.6675	50/50	5.6675
961931	AG1-036 C	1.0986	50/50	1.0986
961932	AG1-036 E	0.7324	50/50	0.7324
961941	AG1-037 C	0.4658	50/50	0.4658
961942	AG1-037 E	0.3105	50/50	0.3105
962331	AG1-082 C	1.8632	50/50	1.8632
962332	AG1-082 E	1.2422	50/50	1.2422
962341	AG1-083 C	1.8632	50/50	1.8632
962342	AG1-083 E	1.2422	50/50	1.2422
962351	AG1-084 C	1.8085	50/50	1.8085
962352	AG1-084 E	1.2057	50/50	1.2057
962361	AG1-085 C	1.8085	50/50	1.8085

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962362	AG1-085 E	1.2057	50/50	1.2057
962571	AG1-106 C	1.5383	Adder	3.41
962572	AG1-106 E	0.6976	Adder	1.55
964491	AG1-312 C O1	24.7968	50/50	24.7968
964492	AG1-312 E O1	6.1992	50/50	6.1992
964501	AG1-313 C O2	3.4069	50/50	3.4069
964502	AG1-313 E O2	2.2713	50/50	2.2713
965631	AG1-431	123.0137	50/50	123.0137
965691	AG1-437 C O1	17.7330	50/50	17.7330
965692	AG1-437 E O1	11.8220	50/50	11.8220
965701	AG1-438 C O1	17.7330	50/50	17.7330
965702	AG1-438 E O1	11.8220	50/50	11.8220
965711	AG1-439 C O1	18.9585	50/50	18.9585
965712	AG1-439 E O1	12.6390	50/50	12.6390
965741	AG1-442 O1	10.3442	50/50	10.3442
965751	AG1-443 O1	10.3442	50/50	10.3442
965761	AG1-444 O1	10.1112	50/50	10.1112
966491	AG1-518 O2	33.7695	50/50	33.7695
966801	AG1-551 C	2.7908	50/50	2.7908
966802	AG1-551 E	1.1960	50/50	1.1960
966931	AG1-431A	92.4220	50/50	92.4220
WEC	WEC	0.1909	Confirmed LTF	0.1909
LGEE	LGEE	0.3895	Confirmed LTF	0.3895
CPL	CPL	2.2393	Confirmed LTF	2.2393
CBM-W2	CBM-W2	8.2432	Confirmed LTF	8.2432
NY	NY	0.1969	Confirmed LTF	0.1969
TVA	TVA	1.5428	Confirmed LTF	1.5428
O-066	O-066	2.8401	Confirmed LTF	2.8401
SIGE	SIGE	0.1138	Confirmed LTF	0.1138
CBM-S2	CBM-S2	24.1060	Confirmed LTF	24.1060
CBM-S1	CBM-S1	0.3857	Confirmed LTF	0.3857
G-007	G-007	0.4463	Confirmed LTF	0.4463
MEC	MEC	1.1361	Confirmed LTF	1.1361
LAGN	LAGN	1.9250	Confirmed LTF	1.9250
AA2-074	AA2-074	1.4791	LTF	1.4791
CBM-W1	CBM-W1	8.0475	Confirmed LTF	8.0475

13.5.4 Index 4

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174502022	314537	6SUFFOLK	DVP	314928	8SUFFOLK	DVP	2	DVP_P4-2: 211042	breaker	1004.3	135.46	137.7	DC	22.45

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.5556	Adder	4.18
313526	AB2-022 C	0.2588	50/50	0.2588
314525	6KINGFORK	8.9644	50/50	8.9644
314539	3UNCAMP	10.5357	50/50	10.5357
314541	3WATKINS	1.1193	50/50	1.1193
314582	3KELFORD	0.3945	50/50	0.3945
314589	3MURPHYS	0.1126	50/50	0.1126
314594	6PLYMOTH	0.1151	50/50	0.1151
314638	6ELIZ CT	0.1513	50/50	0.1513
314639	6TANGLEW	0.3550	50/50	0.3550
315115	1S HAMPT1	2.3182	50/50	2.3182
315126	1ROARAP2	1.0291	50/50	1.0291
315128	1ROARAP4	0.9821	50/50	0.9821
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.6559	Adder	5.48
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.6559	Adder	5.48
315141	1GASTONB	2.0688	50/50	2.0688
315292	1DOMTR78	1.5772	50/50	1.5772
315293	1DOMTR9	8.1576	50/50	8.1576
315294	1DOMTR10	9.9970	50/50	9.9970
315601	1CONETOE2SOL	1.0236	50/50	1.0236
315602	1HOLLOMANSOL	1.8957	50/50	1.8957
315605	6W1-029WIND	1.5677	50/50	1.5677
315606	3AA2-053SOLA	1.2409	50/50	1.2409
315607	3AA1-063SOLA	1.3502	50/50	1.3502
315608	3AA2-088SOLA	1.4055	50/50	1.4055
315611	6Z1-036WIND	1.3735	50/50	1.3735
315614	AA2-178 C	1.9225	50/50	1.9225
316083	AB2-161 C	2.7537	50/50	2.7537
316084	AB2-161 E	4.4928	50/50	4.4928
316088	AB2-174 E	3.1712	Adder	3.73
316103	AB2-015 C	14.4330	50/50	14.4330
316104	AB2-015 E	11.8351	50/50	11.8351
316140	AB2-099 C (Suspended)	0.7369	50/50	0.7369
316141	AB2-099 E (Suspended)	0.3158	50/50	0.3158
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.5704	50/50	0.5704
316151	AD2-215 E (Withdrawn : 01/14/2021)	1.9184	50/50	1.9184
900672	V4-068 E	0.3911	50/50	0.3911
901082	W1-029 E	66.4976	50/50	66.4976

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
913392	Y1-086 E	1.5645	50/50	1.5645
916042	Z1-036 E (Suspended)	58.3274	50/50	58.3274
917122	Z2-027 E	0.9644	50/50	0.9644
917332	Z2-043 E	1.1767	50/50	1.1767
917342	Z2-044 E	0.3203	Adder	0.38
917512	Z2-088 E OP1	6.0715	50/50	6.0715
918492	AA1-063AE OP	4.0354	50/50	4.0354
918512	AA1-065 E OP	5.3801	50/50	5.3801
918532	AA1-067 E	0.6786	50/50	0.6786
919692	AA2-053 E OP	3.2294	50/50	3.2294
919702	AA2-057 E OP	2.0397	Adder	2.4
920042	AA2-088 E OP	14.5347	50/50	14.5347
920592	AA2-165 E	0.2803	Adder	0.33
920692	AA2-178 E	5.2224	50/50	5.2224
922923	AB1-081 E OP	1.9368	Adder	2.28
923262	AB1-132 C OP (Suspended)	8.5116	Adder	10.01
923263	AB1-132 E OP (Suspended)	3.6478	Adder	4.29
923573	AB1-173 E OP	0.5545	Adder	0.65
923832	AB2-022 E	0.8832	50/50	0.8832
923991	AB2-040 C O1	3.8724	Adder	4.56
923992	AB2-040 E O1	3.1683	Adder	3.73
924152	AB2-059 E OP	2.7438	Adder	3.23
925121	AB2-169 C	1.1271	50/50	1.1271
925122	AB2-169 E	6.4113	50/50	6.4113
925591	AC1-034 C	3.4499	Adder	4.06
925592	AC1-034 E	2.6025	Adder	3.06
926070	AC1-086 C	12.5343	Adder	14.75
926071	AC1-086 E	5.7048	Adder	6.71
926201	AC1-098 C	5.3843	50/50	5.3843
926202	AC1-098 E	3.2077	50/50	3.2077
926211	AC1-099 C	1.8043	50/50	1.8043
926212	AC1-099 E	1.0597	50/50	1.0597
927024	AC1-189 C	7.0296	50/50	7.0296
927025	AC1-189 E	3.5016	50/50	3.5016
927145	AC1-208 C	7.0297	50/50	7.0297
927146	AC1-208 E	3.1088	50/50	3.1088
932581	AC2-078 C O1	3.1314	50/50	3.1314
932582	AC2-078 E O1	5.1090	50/50	5.1090
932591	AC2-079 C O1	8.2378	50/50	8.2378
932592	AC2-079 E O1	13.4406	50/50	13.4406
932631	AC2-084 C	7.6755	50/50	7.6755
932632	AC2-084 E	3.7805	50/50	3.7805
933991	AD1-023 C	16.8500	50/50	16.8500
933992	AD1-023 E	9.1732	50/50	9.1732
934331	AD1-057 C O1	5.4622	Adder	6.43
934332	AD1-057 E O1	2.9137	Adder	3.43
934521	AD1-076 C	68.7164	50/50	68.7164
934522	AD1-076 E	34.9903	50/50	34.9903
934575	AD1-082 C	6.2755	50/50	6.2755
934576	AD1-082 E	3.5798	50/50	3.5798
935111	AD1-144 C	0.5646	50/50	0.5646

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
935112	AD1-144 E	1.9553	50/50	1.9553
936401	AD2-051 C O1	11.5961	50/50	11.5961
936402	AD2-051 E O1	4.9793	50/50	4.9793
936661	AD2-085 C	5.9904	50/50	5.9904
936662	AD2-085 E	9.7737	50/50	9.7737
938221	AE1-035 C	0.4740	50/50	0.4740
938222	AE1-035 E	1.4795	50/50	1.4795
938634	AE1-085 C	6.5435	50/50	6.5435
938635	AE1-085 E	3.2717	50/50	3.2717
938771	AE1-103 C	6.6144	50/50	6.6144
938772	AE1-103 E	9.1341	50/50	9.1341
939195	AE1-149 C	5.0174	Adder	5.9
939196	AE1-149 E	3.3449	Adder	3.94
940061	AE2-000BC O1	9.4632	50/50	9.4632
940062	AE2-000BE O1	6.3088	50/50	6.3088
940491	AE2-034 C	9.1392	50/50	9.1392
940492	AE2-034 E	3.9168	50/50	3.9168
940571	AE2-044 C	2.2596	Adder	2.66
940572	AE2-044 E	0.9684	Adder	1.14
940651	AE2-052	1.6725	Adder	1.97
941101	AE2-104 C O1	7.2344	50/50	7.2344
941102	AE2-104 E O1	11.5017	50/50	11.5017
941501	AE2-147 C	22.9302	50/50	22.9302
941502	AE2-147 E	15.2868	50/50	15.2868
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2124	50/50	0.2124
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.7249	50/50	0.7249
942131	AE2-225 C	5.5739	50/50	5.5739
942132	AE2-225 E	3.7159	50/50	3.7159
942171	AE2-229 C	4.1804	50/50	4.1804
942172	AE2-229 E	2.7869	50/50	2.7869
942341	AE2-247 C	2.5876	50/50	2.5876
942342	AE2-247 E	3.5734	50/50	3.5734
943171	AE2-346 C	1.7685	50/50	1.7685
943172	AE2-346 E	0.7579	50/50	0.7579
943461	AF1-017 C	2.3412	50/50	2.3412
943462	AF1-017 E	3.8198	50/50	3.8198
943611	AF1-032 C	4.5520	50/50	4.5520
943612	AF1-032 E	2.4153	50/50	2.4153
944141	AF1-082	1.4526	Adder	1.71
944871	AF1-152 C	7.6434	50/50	7.6434
944872	AF1-152 E	5.0956	50/50	5.0956
945711	AF1-236 C O1	100.0525	50/50	100.0525
945712	AF1-236 E O1	61.7984	50/50	61.7984
957491	AF2-043 C	5.5739	50/50	5.5739
957492	AF2-043 E	3.7159	50/50	3.7159
957521	AF2-046 C	21.8562	50/50	21.8562
957522	AF2-046 E	10.9938	50/50	10.9938
957531	AF2-047 C	21.7165	50/50	21.7165
957532	AF2-047 E	10.9235	50/50	10.9235
957821	AF2-076 C	13.2816	50/50	13.2816
957822	AF2-076 E	8.8544	50/50	8.8544

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957861	AF2-080 C	6.3845	50/50	6.3845
957862	AF2-080 E	2.8303	50/50	2.8303
958161	AF2-110 C	2.9825	50/50	2.9825
958162	AF2-110 E	4.6649	50/50	4.6649
959511	AF2-242 C	7.7391	50/50	7.7391
959512	AF2-242 E	6.0193	50/50	6.0193
961091	AF2-400 C	0.7794	50/50	0.7794
961092	AF2-400 E	1.2788	50/50	1.2788
961671	AG1-007 C	0.3996	Adder	0.89
961672	AG1-007 E	0.2231	Adder	0.5
961681	AG1-008 C	21.9000	50/50	21.9000
961682	AG1-008 E	10.9500	50/50	10.9500
961851	AG1-027 C	34.3857	50/50	34.3857
961852	AG1-027 E	19.0083	50/50	19.0083
961931	AG1-036 C	1.7375	50/50	1.7375
961932	AG1-036 E	1.1583	50/50	1.1583
961941	AG1-037 C	0.6316	50/50	0.6316
961942	AG1-037 E	0.4211	50/50	0.4211
962331	AG1-082 C	2.5264	50/50	2.5264
962332	AG1-082 E	1.6842	50/50	1.6842
962341	AG1-083 C	2.5264	50/50	2.5264
962342	AG1-083 E	1.6842	50/50	1.6842
962351	AG1-084 C	2.1746	50/50	2.1746
962352	AG1-084 E	1.4497	50/50	1.4497
962361	AG1-085 C	2.1746	50/50	2.1746
962362	AG1-085 E	1.4497	50/50	1.4497
962571	AG1-106 C	1.8474	Adder	4.1
962572	AG1-106 E	0.8378	Adder	1.86
964491	AG1-312 C O1	24.9962	50/50	24.9962
964492	AG1-312 E O1	6.2490	50/50	6.2490
964501	AG1-313 C O2	4.4527	50/50	4.4527
964502	AG1-313 E O2	2.9685	50/50	2.9685
964801	AG1-343 C	7.9145	50/50	7.9145
964802	AG1-343 E	6.2186	50/50	6.2186
965291	AG1-394 C	2.7265	50/50	2.7265
965292	AG1-394 E	1.8177	50/50	1.8177
965631	AG1-431	57.9251	50/50	57.9251
965691	AG1-437 C O1	13.1346	50/50	13.1346
965692	AG1-437 E O1	8.7564	50/50	8.7564
965701	AG1-438 C O1	13.1346	50/50	13.1346
965702	AG1-438 E O1	8.7564	50/50	8.7564
965711	AG1-439 C O1	18.3615	50/50	18.3615
965712	AG1-439 E O1	12.2410	50/50	12.2410
965741	AG1-442 O1	7.6618	50/50	7.6618
965751	AG1-443 O1	7.6618	50/50	7.6618
965761	AG1-444 O1	9.7928	50/50	9.7928
966491	AG1-518 O2	22.4465	50/50	22.4465
966731	AG1-544 C	5.1105	50/50	5.1105
966732	AG1-544 E	2.7417	50/50	2.7417
966741	AG1-545 C	1.7435	50/50	1.7435
966742	AG1-545 E	0.9347	50/50	0.9347
966751	AG1-546 C	4.1410	Adder	9.19

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966752	AG1-546 E	2.2219	Adder	4.93
966801	AG1-551 C	2.2677	50/50	2.2677
966802	AG1-551 E	0.9719	50/50	0.9719
966811	AG1-552 C	1.6340	50/50	1.6340
966812	AG1-552 E	0.7003	50/50	0.7003
966931	AG1-431A	43.5200	50/50	43.5200
WEC	WEC	0.1244	Confirmed LTF	0.1244
LGEE	LGEE	0.2557	Confirmed LTF	0.2557
CPL	CPL	1.8441	Confirmed LTF	1.8441
CBM-W2	CBM-W2	5.8419	Confirmed LTF	5.8419
NY	NY	0.2218	Confirmed LTF	0.2218
TVA	TVA	1.1214	Confirmed LTF	1.1214
O-066	O-066	3.0622	Confirmed LTF	3.0622
SIGE	SIGE	0.0941	Confirmed LTF	0.0941
CBM-S2	CBM-S2	18.9695	Confirmed LTF	18.9695
CBM-S1	CBM-S1	0.2770	Confirmed LTF	0.2770
G-007	G-007	0.4809	Confirmed LTF	0.4809
MEC	MEC	0.7691	Confirmed LTF	0.7691
LAGN	LAGN	1.4000	Confirmed LTF	1.4000
CBM-W1	CBM-W1	5.1594	Confirmed LTF	5.1594

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174502075	314537	6SUFFOLK	DVP	314928	8SUFFOLK	DVP	1	DVP_P4-2: 28942	breaker	1053.5	122.02	124.14	DC	22.33

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.6661	Adder	4.31
313526	AB2-022 C	0.3764	50/50	0.3764
313717	6SLIGO L2192	1.2774	Adder	1.5
314539	3UNCAMP	10.5221	50/50	10.5221
314541	3WATKINS	1.1206	50/50	1.1206
314582	3KELFORD	0.4058	50/50	0.4058
314589	3MURPHYS	0.1142	50/50	0.1142
314594	6PLYMOTH	0.1247	50/50	0.1247
314632	6AYDLETOLD	1.3800	Adder	1.62
314638	6ELIZ CT	0.2200	50/50	0.2200
314639	6TANGLEW	0.4642	50/50	0.4642
315115	1S HAMPT1	2.3217	50/50	2.3217
315126	1ROARAP2	1.0594	50/50	1.0594
315128	1ROARAP4	1.0110	50/50	1.0110
315131	1EDGE CMA (Deactivation : 22/04/2019)	4.9216	Adder	5.79
315132	1EDGE CMB (Deactivation : 22/04/2019)	4.9216	Adder	5.79
315292	1DOMTR78	1.6937	50/50	1.6937
315293	1DOMTR9	8.7602	50/50	8.7602
315294	1DOMTR10	10.7355	50/50	10.7355
315602	1HOLLOMANSOL	1.9482	50/50	1.9482
315605	6W1-029WIND	1.7506	50/50	1.7506
315606	3AA2-053SOLA	1.2765	50/50	1.2765
315607	3AA1-063SOLA	1.3753	50/50	1.3753
315608	3AA2-088SOLA	1.4164	50/50	1.4164
315611	6Z1-036WIND	1.5612	50/50	1.5612
315614	AA2-178 C	2.1172	50/50	2.1172
316083	AB2-161 C	2.6049	50/50	2.6049
316084	AB2-161 E	4.2501	50/50	4.2501
316088	AB2-174 E	3.2713	Adder	3.85
316103	AB2-015 C	14.4340	50/50	14.4340
316104	AB2-015 E	11.8359	50/50	11.8359
316129	AC1-054 C	3.5586	Adder	4.19
316140	AB2-099 C (Suspended)	0.7540	50/50	0.7540
316141	AB2-099 E (Suspended)	0.3231	50/50	0.3231
900672	V4-068 E	0.3966	50/50	0.3966
901082	W1-029 E	74.2571	50/50	74.2571
913392	Y1-086 E	2.2756	50/50	2.2756
916042	Z1-036 E (Suspended)	66.2996	50/50	66.2996
917122	Z2-027 E	1.2610	50/50	1.2610
917332	Z2-043 E	1.2105	50/50	1.2105

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
917342	Z2-044 E	0.3360	Adder	0.4
917512	Z2-088 E OP1	5.4230	Adder	6.38
918492	AA1-063AE OP	4.1102	50/50	4.1102
918512	AA1-065 E OP	5.5291	50/50	5.5291
918532	AA1-067 E	0.7104	50/50	0.7104
919152	AA1-139 E	3.4388	Adder	4.05
919692	AA2-053 E OP	3.3219	50/50	3.3219
919702	AA2-057 E OP	2.1294	Adder	2.51
920042	AA2-088 E OP	14.6475	50/50	14.6475
920592	AA2-165 E	0.2927	Adder	0.34
920692	AA2-178 E	5.7514	50/50	5.7514
922923	AB1-081 E OP	2.0449	Adder	2.41
923262	AB1-132 C OP (Suspended)	8.7929	Adder	10.34
923263	AB1-132 E OP (Suspended)	3.7684	Adder	4.43
923573	AB1-173 E OP	0.5717	Adder	0.67
923832	AB2-022 E	1.2846	50/50	1.2846
923991	AB2-040 C O1	3.9928	Adder	4.7
923992	AB2-040 E O1	3.2669	Adder	3.84
924152	AB2-059 E OP	2.8969	Adder	3.41
925121	AB2-169 C	1.2019	50/50	1.2019
925122	AB2-169 E	6.8365	50/50	6.8365
925591	AC1-034 C	3.6425	Adder	4.29
925592	AC1-034 E	2.7478	Adder	3.23
925785	AC1-054 E	1.6393	Adder	1.93
926070	AC1-086 C	12.9486	Adder	15.23
926071	AC1-086 E	5.8933	Adder	6.93
926201	AC1-098 C	5.5704	50/50	5.5704
926202	AC1-098 E	3.3186	50/50	3.3186
926211	AC1-099 C	1.8667	50/50	1.8667
926212	AC1-099 E	1.0963	50/50	1.0963
927024	AC1-189 C	7.3767	50/50	7.3767
927025	AC1-189 E	3.6745	50/50	3.6745
927145	AC1-208 C	7.2906	50/50	7.2906
927146	AC1-208 E	3.2242	50/50	3.2242
932581	AC2-078 C O1	2.5068	Adder	2.95
932582	AC2-078 E O1	4.0900	Adder	4.81
932591	AC2-079 C O1	8.0563	50/50	8.0563
932592	AC2-079 E O1	13.1444	50/50	13.1444
932631	AC2-084 C	7.9408	50/50	7.9408
932632	AC2-084 E	3.9112	50/50	3.9112
933991	AD1-023 C	17.9526	50/50	17.9526
933992	AD1-023 E	9.7734	50/50	9.7734
934331	AD1-057 C O1	5.7086	Adder	6.72
934332	AD1-057 E O1	3.0452	Adder	3.58
934521	AD1-076 C	74.1715	50/50	74.1715
934522	AD1-076 E	37.7680	50/50	37.7680
934575	AD1-082 C	5.9364	50/50	5.9364
934576	AD1-082 E	3.3864	50/50	3.3864
936401	AD2-051 C O1	11.9184	50/50	11.9184
936402	AD2-051 E O1	5.1176	50/50	5.1176
936661	AD2-085 C	5.9024	50/50	5.9024

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936662	AD2-085 E	9.6302	50/50	9.6302
937221	AD2-160 C O1	2.7718	Adder	3.26
937222	AD2-160 E O1	1.4535	Adder	1.71
938221	AE1-035 C	0.4871	50/50	0.4871
938222	AE1-035 E	1.5205	50/50	1.5205
938535	AE1-072 C	10.5979	Adder	12.47
938536	AE1-072 E	5.4595	Adder	6.42
938634	AE1-085 C	5.2169	Adder	6.14
938635	AE1-085 E	2.6084	Adder	3.07
938771	AE1-103 C	6.5965	50/50	6.5965
938772	AE1-103 E	9.1095	50/50	9.1095
940061	AE2-000BC O1	9.0090	50/50	9.0090
940062	AE2-000BE O1	6.0060	50/50	6.0060
940491	AE2-034 C	10.0649	50/50	10.0649
940492	AE2-034 E	4.3135	50/50	4.3135
940571	AE2-044 C	2.3857	Adder	2.81
940572	AE2-044 E	1.0224	Adder	1.2
941101	AE2-104 C O1	7.1764	50/50	7.1764
941102	AE2-104 E O1	11.4093	50/50	11.4093
941501	AE2-147 C	25.6059	50/50	25.6059
941502	AE2-147 E	17.0706	50/50	17.0706
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2180	50/50	0.2180
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.7440	50/50	0.7440
942131	AE2-225 C	5.5153	50/50	5.5153
942132	AE2-225 E	3.6769	50/50	3.6769
942171	AE2-229 C	4.1365	50/50	4.1365
942172	AE2-229 E	2.7577	50/50	2.7577
942341	AE2-247 C	2.5493	50/50	2.5493
942342	AE2-247 E	3.5205	50/50	3.5205
942401	AE2-253 C	2.9155	Adder	3.43
942402	AE2-253 E	1.3099	Adder	1.54
943171	AE2-346 C	1.8095	50/50	1.8095
943172	AE2-346 E	0.7755	50/50	0.7755
943461	AF1-017 C	2.3065	50/50	2.3065
943462	AF1-017 E	3.7633	50/50	3.7633
943611	AF1-032 C	4.5042	50/50	4.5042
943612	AF1-032 E	2.3900	50/50	2.3900
944141	AF1-082	1.5337	Adder	1.8
944871	AF1-152 C	8.5353	50/50	8.5353
944872	AF1-152 E	5.6902	50/50	5.6902
945711	AF1-236 C O1	110.1865	50/50	110.1865
945712	AF1-236 E O1	68.0578	50/50	68.0578
957491	AF2-043 C	5.5153	50/50	5.5153
957492	AF2-043 E	3.6769	50/50	3.6769
957521	AF2-046 C	22.2005	50/50	22.2005
957522	AF2-046 E	11.1670	50/50	11.1670
957531	AF2-047 C	23.9161	50/50	23.9161
957532	AF2-047 E	12.0299	50/50	12.0299
957821	AF2-076 C	13.1652	50/50	13.1652
957822	AF2-076 E	8.7768	50/50	8.7768
957861	AF2-080 C	6.6998	50/50	6.6998

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
957862	AF2-080 E	2.9700	50/50	2.9700
957871	AF2-081 C	5.3493	Adder	6.29
957872	AF2-081 E	2.2926	Adder	2.7
958161	AF2-110 C	2.9585	50/50	2.9585
958162	AF2-110 E	4.6275	50/50	4.6275
959511	AF2-242 C	8.2062	50/50	8.2062
959512	AF2-242 E	6.3826	50/50	6.3826
961091	AF2-400 C	0.7794	50/50	0.7794
961092	AF2-400 E	1.2789	50/50	1.2789
961671	AG1-007 C	0.4204	Adder	0.93
961672	AG1-007 E	0.2348	Adder	0.52
961681	AG1-008 C	22.2450	50/50	22.2450
961682	AG1-008 E	11.1225	50/50	11.1225
961851	AG1-027 C	34.1732	50/50	34.1732
961852	AG1-027 E	18.8908	50/50	18.8908
961931	AG1-036 C	1.7716	50/50	1.7716
961932	AG1-036 E	1.1810	50/50	1.1810
961941	AG1-037 C	0.6463	50/50	0.6463
961942	AG1-037 E	0.4308	50/50	0.4308
962331	AG1-082 C	2.5850	50/50	2.5850
962332	AG1-082 E	1.7234	50/50	1.7234
962341	AG1-083 C	2.5850	50/50	2.5850
962342	AG1-083 E	1.7234	50/50	1.7234
962351	AG1-084 C	2.2320	50/50	2.2320
962352	AG1-084 E	1.4880	50/50	1.4880
962361	AG1-085 C	2.2320	50/50	2.2320
962362	AG1-085 E	1.4880	50/50	1.4880
962571	AG1-106 C	1.9085	Adder	4.24
962572	AG1-106 E	0.8655	Adder	1.92
964491	AG1-312 C O1	25.8126	50/50	25.8126
964492	AG1-312 E O1	6.4532	50/50	6.4532
964501	AG1-313 C O2	4.5766	50/50	4.5766
964502	AG1-313 E O2	3.0511	50/50	3.0511
964801	AG1-343 C	7.9929	50/50	7.9929
964802	AG1-343 E	6.2802	50/50	6.2802
965291	AG1-394 C	2.7511	50/50	2.7511
965292	AG1-394 E	1.8341	50/50	1.8341
965631	AG1-431	63.7922	50/50	63.7922
965691	AG1-437 C O1	13.8516	50/50	13.8516
965692	AG1-437 E O1	9.2344	50/50	9.2344
965701	AG1-438 C O1	13.8516	50/50	13.8516
965702	AG1-438 E O1	9.2344	50/50	9.2344
965711	AG1-439 C O1	8.6922	Adder	19.29
965712	AG1-439 E O1	5.7948	Adder	12.86
965741	AG1-442 O1	8.0801	50/50	8.0801
965751	AG1-443 O1	8.0801	50/50	8.0801
965761	AG1-444 O1	4.6358	Adder	10.29
966491	AG1-518 O2	22.3310	50/50	22.3310
966731	AG1-544 C	2.1594	Adder	4.79
966732	AG1-544 E	1.1585	Adder	2.57
966741	AG1-545 C	0.7382	Adder	1.64
966742	AG1-545 E	0.3958	Adder	0.88

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966751	AG1-546 C	4.3199	Adder	9.59
966752	AG1-546 E	2.3180	Adder	5.15
966801	AG1-551 C	2.3912	50/50	2.3912
966802	AG1-551 E	1.0248	50/50	1.0248
966811	AG1-552 C	1.6821	50/50	1.6821
966812	AG1-552 E	0.7209	50/50	0.7209
966931	AG1-431A	47.9280	50/50	47.9280
WEC	WEC	0.1704	Confirmed LTF	0.1704
LGEE	LGEE	0.3493	Confirmed LTF	0.3493
CPL	CPL	2.1860	Confirmed LTF	2.1860
CBM-W2	CBM-W2	7.6070	Confirmed LTF	7.6070
NY	NY	0.2284	Confirmed LTF	0.2284
TVA	TVA	1.4392	Confirmed LTF	1.4392
O-066	O-066	3.2237	Confirmed LTF	3.2237
SIGE	SIGE	0.1130	Confirmed LTF	0.1130
CBM-S2	CBM-S2	23.1768	Confirmed LTF	23.1768
CBM-S1	CBM-S1	0.3580	Confirmed LTF	0.3580
G-007	G-007	0.5071	Confirmed LTF	0.5071
MEC	MEC	1.0281	Confirmed LTF	1.0281
LAGN	LAGN	1.7955	Confirmed LTF	1.7955
AA2-074	AA2-074	1.4436	LTF	1.4436
CBM-W1	CBM-W1	7.1362	Confirmed LTF	7.1362

13.5.6 Index 6

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334771	314550	6HICKORY	DVP	314466	6FENTRES	DVP	1	DVP_P4-2: 246T247	breaker	699.0	141.27	143.74	DC	17.23

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.8105	50/50	0.8105
313717	6SLIGO L2192	6.2400	50/50	6.2400
314550	6HICKORY	19.8234	50/50	19.8234
314594	6PLYMOTH	0.1066	50/50	0.1066
314632	6AYDLETOLD	5.3274	50/50	5.3274
314638	6ELIZ CT	0.4738	50/50	0.4738
314639	6TANGLEW	0.8342	50/50	0.8342
314643	3O INLET	1.0169	50/50	1.0169
315292	1DOMTR78	1.3177	50/50	1.3177
315293	1DOMTR9	6.8152	50/50	6.8152
315294	1DOMTR10	8.3520	50/50	8.3520
315602	1HOLLOMANSOL	0.8795	50/50	0.8795
315603	6AA1-139SOLA	7.2588	50/50	7.2588
315605	6W1-029WIND	2.1208	50/50	2.1208
315611	6Z1-036WIND	1.9066	50/50	1.9066
315614	AA2-178 C	2.0826	50/50	2.0826
901082	W1-029 E	89.9615	50/50	89.9615
913392	Y1-086 E	4.9001	50/50	4.9001
916042	Z1-036 E (Suspended)	80.9690	50/50	80.9690
917122	Z2-027 E	2.2660	50/50	2.2660
918512	AA1-065 E OP	2.4960	50/50	2.4960
918532	AA1-067 E	0.3142	Adder	0.37
919152	AA1-139 E	21.0460	50/50	21.0460
920692	AA2-178 E	5.6573	50/50	5.6573
923832	AB2-022 E	2.7662	50/50	2.7662
925121	AB2-169 C	0.8497	50/50	0.8497
925122	AB2-169 E	4.8331	50/50	4.8331
933991	AD1-023 C	13.1181	50/50	13.1181
933992	AD1-023 E	7.1415	50/50	7.1415
934521	AD1-076 C	61.5038	50/50	61.5038
934522	AD1-076 E	31.3177	50/50	31.3177
936401	AD2-051 C O1	5.3720	50/50	5.3720
936402	AD2-051 E O1	2.3067	50/50	2.3067
937221	AD2-160 C O1	22.7209	50/50	22.7209
937222	AD2-160 E O1	11.9146	50/50	11.9146
938221	AE1-035 C	0.2199	50/50	0.2199
938222	AE1-035 E	0.6864	50/50	0.6864
938535	AE1-072 C	38.8832	50/50	38.8832
938536	AE1-072 E	20.0308	50/50	20.0308
940491	AE2-034 C	9.9002	50/50	9.9002
940492	AE2-034 E	4.2430	50/50	4.2430

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941501	AE2-147 C	31.0212	50/50	31.0212
941502	AE2-147 E	20.6808	50/50	20.6808
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.2607	Adder	0.31
942401	AE2-253 C	23.8985	50/50	23.8985
942402	AE2-253 E	10.7370	50/50	10.7370
944871	AF1-152 C	10.3404	50/50	10.3404
944872	AF1-152 E	6.8936	50/50	6.8936
945711	AF1-236 C O1	108.3841	50/50	108.3841
945712	AF1-236 E O1	66.9445	50/50	66.9445
957531	AF2-047 C	23.5249	50/50	23.5249
957532	AF2-047 E	11.8331	50/50	11.8331
957821	AF2-076 C	3.1194	50/50	3.1194
957822	AF2-076 E	2.0796	50/50	2.0796
957871	AF2-081 C	32.7382	50/50	32.7382
957872	AF2-081 E	14.0306	50/50	14.0306
959511	AF2-242 C	5.3433	50/50	5.3433
959512	AF2-242 E	4.1559	50/50	4.1559
962351	AG1-084 C	0.4145	Adder	0.92
962352	AG1-084 E	0.2763	Adder	0.61
962361	AG1-085 C	0.4145	Adder	0.92
962362	AG1-085 E	0.2763	Adder	0.61
964491	AG1-312 C O1	12.6269	50/50	12.6269
964492	AG1-312 E O1	3.1567	50/50	3.1567
965181	AG1-383 C	13.3395	50/50	13.3395
965182	AG1-383 E	3.9509	50/50	3.9509
965631	AG1-431	62.7487	50/50	62.7487
965691	AG1-437 C O1	9.0372	50/50	9.0372
965692	AG1-437 E O1	6.0248	50/50	6.0248
965701	AG1-438 C O1	9.0372	50/50	9.0372
965702	AG1-438 E O1	6.0248	50/50	6.0248
965741	AG1-442 O1	5.2717	50/50	5.2717
965751	AG1-443 O1	5.2717	50/50	5.2717
966491	AG1-518 O2	17.2340	50/50	17.2340
966801	AG1-551 C	1.4206	50/50	1.4206
966802	AG1-551 E	0.6088	50/50	0.6088
966931	AG1-431A	47.1440	50/50	47.1440
WEC	WEC	0.0860	Confirmed LTF	0.0860
LGEE	LGEE	0.1759	Confirmed LTF	0.1759
CPLE	CPLE	1.1193	Confirmed LTF	1.1193
CBM-W2	CBM-W2	3.8797	Confirmed LTF	3.8797
NY	NY	0.1206	Confirmed LTF	0.1206
TVA	TVA	0.7364	Confirmed LTF	0.7364
O-066	O-066	1.6960	Confirmed LTF	1.6960
SIGE	SIGE	0.0582	Confirmed LTF	0.0582
CBM-S2	CBM-S2	11.9329	Confirmed LTF	11.9329
CBM-S1	CBM-S1	0.1832	Confirmed LTF	0.1832
G-007	G-007	0.2667	Confirmed LTF	0.2667
MEC	MEC	0.5212	Confirmed LTF	0.5212
LAGN	LAGN	0.9205	Confirmed LTF	0.9205
CBM-W1	CBM-W1	3.5891	Confirmed LTF	3.5891

13.5.7 Index 7

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
173932247	314561	6CAROLNA	DVP	314583	6LAKEVEW	DVP	1	DVP_P4-2: 246T247	breaker	459.0	173.3	173.76	DC	4.67

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	4.8331	50/50	4.8331
314539	3UNCAMP	4.0999	50/50	4.0999
314541	3WATKINS	0.5680	50/50	0.5680
314582	3KELFORD	0.4846	50/50	0.4846
314589	3MURPHYS	0.1126	50/50	0.1126
314594	6PLYMOTH	0.0967	50/50	0.0967
315115	1S HAMPT1	1.2202	50/50	1.2202
315126	1ROARAP2	2.3907	50/50	2.3907
315128	1ROARAP4	2.2813	50/50	2.2813
315164	1KERR 7	0.6951	50/50	0.6951
315292	1DOMTR78	1.3460	50/50	1.3460
315293	1DOMTR9	6.9617	50/50	6.9617
315294	1DOMTR10	8.5315	50/50	8.5315
315602	1HOLLOMANSOL	2.3248	50/50	2.3248
315606	3AA2-053SOLA	2.5398	50/50	2.5398
315607	3AA1-063SOLA	2.1103	50/50	2.1103
315608	3AA2-088SOLA	1.1705	50/50	1.1705
315611	6Z1-036WIND	0.7024	50/50	0.7024
315614	AA2-178 C	1.3989	50/50	1.3989
316088	AB2-174 E	2.6618	Adder	3.13
316103	AB2-015 C	6.5815	50/50	6.5815
316104	AB2-015 E	5.3968	50/50	5.3968
316129	AC1-054 C	8.5395	50/50	8.5395
316140	AB2-099 C (Suspended)	0.8745	50/50	0.8745
316141	AB2-099 E (Suspended)	0.3748	50/50	0.3748
900672	V4-068 E	0.3912	50/50	0.3912
901082	W1-029 E	20.7208	Adder	24.38
916042	Z1-036 E (Suspended)	29.8274	50/50	29.8274
917332	Z2-043 E	1.4454	50/50	1.4454
918492	AA1-063AE OP	6.3070	50/50	6.3070
918512	AA1-065 E OP	6.5981	50/50	6.5981
918532	AA1-067 E	0.5532	50/50	0.5532
919692	AA2-053 E OP	6.6096	50/50	6.6096
919702	AA2-057 E OP	1.4432	Adder	1.7
920042	AA2-088 E OP	12.1049	50/50	12.1049
920592	AA2-165 E	0.1984	Adder	0.23
920692	AA2-178 E	3.8002	50/50	3.8002
923573	AB1-173 E OP	0.7537	50/50	0.7537
923991	AB2-040 C O1	5.2637	50/50	5.2637
923992	AB2-040 E O1	4.3067	50/50	4.3067
925121	AB2-169 C	0.9498	50/50	0.9498

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
925122	AB2-169 E	5.4029	50/50	5.4029
925785	AC1-054 E	3.9339	50/50	3.9339
926201	AC1-098 C	6.2886	50/50	6.2886
926202	AC1-098 E	3.7464	50/50	3.7464
926211	AC1-099 C	2.1074	50/50	2.1074
926212	AC1-099 E	1.2377	50/50	1.2377
927145	AC1-208 C	8.8972	50/50	8.8972
927146	AC1-208 E	3.9347	50/50	3.9347
932631	AC2-084 C	8.9646	50/50	8.9646
932632	AC2-084 E	4.4154	50/50	4.4154
933991	AD1-023 C	16.1740	50/50	16.1740
933992	AD1-023 E	8.8052	50/50	8.8052
934521	AD1-076 C	59.1788	50/50	59.1788
934522	AD1-076 E	30.1338	50/50	30.1338
936361	AD2-046 C O1	4.4861	Adder	5.28
936362	AD2-046 E O1	2.0630	Adder	2.43
936401	AD2-051 C O1	14.9052	50/50	14.9052
936402	AD2-051 E O1	6.4001	50/50	6.4001
938221	AE1-035 C	0.5813	50/50	0.5813
938222	AE1-035 E	1.8145	50/50	1.8145
938771	AE1-103 C	1.7987	Adder	2.12
938772	AE1-103 E	2.4840	Adder	2.92
939181	AE1-148 C	4.3408	Adder	5.11
939182	AE1-148 E	2.8938	Adder	3.4
940491	AE2-034 C	6.6503	50/50	6.6503
940492	AE2-034 E	2.8501	50/50	2.8501
940542	AE2-040 BAT	1.4628	Merchant Transmission	1.4628
940661	AE2-053 O1	1.6077	Adder	1.89
941501	AE2-147 C	7.1451	Adder	8.41
941502	AE2-147 E	4.7634	Adder	5.6
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.2660	50/50	0.2660
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.9077	50/50	0.9077
943171	AE2-346 C	2.0988	50/50	2.0988
943172	AE2-346 E	0.8995	50/50	0.8995
944871	AF1-152 C	2.3817	Adder	2.8
944872	AF1-152 E	1.5878	Adder	1.87
945711	AF1-236 C O1	72.8047	50/50	72.8047
945712	AF1-236 E O1	44.9686	50/50	44.9686
946012	AF1-266 BAT	7.7681	Merchant Transmission	7.7681
957521	AF2-046 C	22.5977	50/50	22.5977
957522	AF2-046 E	11.3668	50/50	11.3668
957531	AF2-047 C	15.8023	50/50	15.8023
957532	AF2-047 E	7.9487	50/50	7.9487
957821	AF2-076 C	8.2473	50/50	8.2473
957822	AF2-076 E	5.4982	50/50	5.4982
959511	AF2-242 C	6.4575	50/50	6.4575
959512	AF2-242 E	5.0225	50/50	5.0225
961091	AF2-400 C	0.3554	50/50	0.3554
961092	AF2-400 E	0.5831	50/50	0.5831
961681	AG1-008 C	22.6430	50/50	22.6430
961682	AG1-008 E	11.3215	50/50	11.3215

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961931	AG1-036 C	1.9349	50/50	1.9349
961932	AG1-036 E	1.2900	50/50	1.2900
961941	AG1-037 C	0.7496	50/50	0.7496
961942	AG1-037 E	0.4997	50/50	0.4997
962331	AG1-082 C	2.9983	50/50	2.9983
962332	AG1-082 E	1.9989	50/50	1.9989
962341	AG1-083 C	2.9983	50/50	2.9983
962342	AG1-083 E	1.9989	50/50	1.9989
962351	AG1-084 C	2.7232	50/50	2.7232
962352	AG1-084 E	1.8155	50/50	1.8155
962361	AG1-085 C	2.7232	50/50	2.7232
962362	AG1-085 E	1.8155	50/50	1.8155
964491	AG1-312 C O1	29.7830	50/50	29.7830
964492	AG1-312 E O1	7.4458	50/50	7.4458
964501	AG1-313 C O2	7.8417	50/50	7.8417
964502	AG1-313 E O2	5.2278	50/50	5.2278
964801	AG1-343 C	7.2341	50/50	7.2341
964802	AG1-343 E	5.6840	50/50	5.6840
965291	AG1-394 C	2.4446	50/50	2.4446
965292	AG1-394 E	1.6298	50/50	1.6298
965631	AG1-431	42.1501	50/50	42.1501
965691	AG1-437 C O1	13.6146	50/50	13.6146
965692	AG1-437 E O1	9.0764	50/50	9.0764
965701	AG1-438 C O1	13.6146	50/50	13.6146
965702	AG1-438 E O1	9.0764	50/50	9.0764
965721	AG1-440 C	6.1520	50/50	6.1520
965722	AG1-440 E	4.1013	50/50	4.1013
965731	AG1-441 C	6.1520	50/50	6.1520
965732	AG1-441 E	4.1013	50/50	4.1013
965741	AG1-442 O1	7.9418	50/50	7.9418
965751	AG1-443 O1	7.9418	50/50	7.9418
965771	AG1-445	3.5545	50/50	3.5545
965781	AG1-446	3.5545	50/50	3.5545
966491	AG1-518 O2	2.1038	Adder	4.67
966751	AG1-546 C	19.8588	50/50	19.8588
966752	AG1-546 E	10.6557	50/50	10.6557
966801	AG1-551 C	1.8732	50/50	1.8732
966802	AG1-551 E	0.8028	50/50	0.8028
966811	AG1-552 C	3.7958	50/50	3.7958
966812	AG1-552 E	1.6268	50/50	1.6268
966931	AG1-431A	31.6680	50/50	31.6680
WEC	WEC	0.0444	Confirmed LTF	0.0444
LGEE	LGEE	0.0917	Confirmed LTF	0.0917
CPL	CPL	0.5521	Confirmed LTF	0.5521
CBM-W2	CBM-W2	1.8816	Confirmed LTF	1.8816
NY	NY	0.0536	Confirmed LTF	0.0536
TVA	TVA	0.3500	Confirmed LTF	0.3500
O-066	O-066	0.7672	Confirmed LTF	0.7672
SIGE	SIGE	0.0281	Confirmed LTF	0.0281
CBM-S2	CBM-S2	5.5019	Confirmed LTF	5.5019
CBM-S1	CBM-S1	0.0878	Confirmed LTF	0.0878
G-007	G-007	0.1208	Confirmed LTF	0.1208

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
MEC	MEC	0.2622	Confirmed LTF	0.2622
LAGN	LAGN	0.4358	Confirmed LTF	0.4358
CBM-W1	CBM-W1	1.8787	Confirmed LTF	1.8787

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174122869	314638	6ELIZ CT	DVP	314647	6SHAWBRO	DVP	1	DVP_P4-2: 246T247	breaker	699.0	282.11	286.94	DC	33.76

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	1.5877	50/50	1.5877
314582	3KELFORD	0.3271	50/50	0.3271
314589	3MURPHYS	0.0528	50/50	0.0528
314594	6PLYMOTH	0.2089	50/50	0.2089
314638	6ELIZ CT	0.9282	50/50	0.9282
314639	6TANGLEW	1.6342	50/50	1.6342
315292	1DOMTR78	2.5839	50/50	2.5839
315293	1DOMTR9	13.3644	50/50	13.3644
315294	1DOMTR10	16.3780	50/50	16.3780
315601	1CONETOE2SOL	1.0559	50/50	1.0559
315602	1HOLLOMANSOL	1.7266	50/50	1.7266
315605	6W1-029WIND	4.1551	50/50	4.1551
315606	3AA2-053SOLA	0.9023	50/50	0.9023
315611	6Z1-036WIND	3.7357	50/50	3.7357
315614	AA2-178 C	4.0818	50/50	4.0818
316140	AB2-099 C (Suspended)	0.5431	50/50	0.5431
316141	AB2-099 E (Suspended)	0.2327	50/50	0.2327
900672	V4-068 E	0.1833	50/50	0.1833
901082	W1-029 E	176.2507	50/50	176.2507
913392	Y1-086 E	9.5988	50/50	9.5988
916042	Z1-036 E (Suspended)	158.6457	50/50	158.6457
917122	Z2-027 E	4.4391	50/50	4.4391
917332	Z2-043 E	0.9758	50/50	0.9758
917512	Z2-088 E OP1	6.2635	50/50	6.2635
918512	AA1-065 E OP	4.9001	50/50	4.9001
918532	AA1-067 E	0.7263	50/50	0.7263
919692	AA2-053 E OP	2.3481	50/50	2.3481
920692	AA2-178 E	11.0880	50/50	11.0880
923832	AB2-022 E	5.4187	50/50	5.4187
925121	AB2-169 C	1.6669	50/50	1.6669
925122	AB2-169 E	9.4818	50/50	9.4818
926201	AC1-098 C	4.4398	50/50	4.4398
926202	AC1-098 E	2.6450	50/50	2.6450
926211	AC1-099 C	1.4878	50/50	1.4878
926212	AC1-099 E	0.8738	50/50	0.8738
927024	AC1-189 C	7.3537	50/50	7.3537
927025	AC1-189 E	3.6631	50/50	3.6631
927145	AC1-208 C	5.6741	50/50	5.6741
927146	AC1-208 E	2.5093	50/50	2.5093
932631	AC2-084 C	6.3291	50/50	6.3291
932632	AC2-084 E	3.1173	50/50	3.1173

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
933991	AD1-023 C	25.7249	50/50	25.7249
933992	AD1-023 E	14.0047	50/50	14.0047
934521	AD1-076 C	120.5800	50/50	120.5800
934522	AD1-076 E	61.3992	50/50	61.3992
936401	AD2-051 C O1	10.5471	50/50	10.5471
936402	AD2-051 E O1	4.5288	50/50	4.5288
938221	AE1-035 C	0.4317	50/50	0.4317
938222	AE1-035 E	1.3475	50/50	1.3475
940491	AE2-034 C	19.4040	50/50	19.4040
940492	AE2-034 E	8.3160	50/50	8.3160
941501	AE2-147 C	60.7761	50/50	60.7761
941502	AE2-147 E	40.5174	50/50	40.5174
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1765	50/50	0.1765
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.6025	50/50	0.6025
943171	AE2-346 C	1.3033	50/50	1.3033
943172	AE2-346 E	0.5586	50/50	0.5586
944871	AF1-152 C	20.2587	50/50	20.2587
944872	AF1-152 E	13.5058	50/50	13.5058
945711	AF1-236 C O1	212.4276	50/50	212.4276
945712	AF1-236 E O1	131.2080	50/50	131.2080
957521	AF2-046 C	11.3014	50/50	11.3014
957522	AF2-046 E	5.6846	50/50	5.6846
957531	AF2-047 C	46.1076	50/50	46.1076
957532	AF2-047 E	23.1924	50/50	23.1924
957821	AF2-076 C	6.1242	50/50	6.1242
957822	AF2-076 E	4.0828	50/50	4.0828
957861	AF2-080 C	6.6789	50/50	6.6789
957862	AF2-080 E	2.9608	50/50	2.9608
959511	AF2-242 C	10.4859	50/50	10.4859
959512	AF2-242 E	8.1557	50/50	8.1557
961671	AG1-007 C	0.9036	50/50	0.9036
961672	AG1-007 E	0.5046	50/50	0.5046
961681	AG1-008 C	11.3240	50/50	11.3240
961682	AG1-008 E	5.6620	50/50	5.6620
961931	AG1-036 C	1.0977	50/50	1.0977
961932	AG1-036 E	0.7318	50/50	0.7318
961941	AG1-037 C	0.4655	50/50	0.4655
961942	AG1-037 E	0.3103	50/50	0.3103
962331	AG1-082 C	1.8619	50/50	1.8619
962332	AG1-082 E	1.2413	50/50	1.2413
962341	AG1-083 C	1.8619	50/50	1.8619
962342	AG1-083 E	1.2413	50/50	1.2413
962351	AG1-084 C	1.8074	50/50	1.8074
962352	AG1-084 E	1.2049	50/50	1.2049
962361	AG1-085 C	1.8074	50/50	1.8074
962362	AG1-085 E	1.2049	50/50	1.2049
964491	AG1-312 C O1	24.7845	50/50	24.7845
964492	AG1-312 E O1	6.1961	50/50	6.1961
964501	AG1-313 C O2	3.4042	50/50	3.4042
964502	AG1-313 E O2	2.2695	50/50	2.2695
965631	AG1-431	122.9844	50/50	122.9844

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965691	AG1-437 C O1	17.7264	50/50	17.7264
965692	AG1-437 E O1	11.8176	50/50	11.8176
965701	AG1-438 C O1	17.7264	50/50	17.7264
965702	AG1-438 E O1	11.8176	50/50	11.8176
965711	AG1-439 C O1	18.9420	50/50	18.9420
965712	AG1-439 E O1	12.6280	50/50	12.6280
965741	AG1-442 O1	10.3404	50/50	10.3404
965751	AG1-443 O1	10.3404	50/50	10.3404
965761	AG1-444 O1	10.1024	50/50	10.1024
966491	AG1-518 O2	33.7640	50/50	33.7640
966801	AG1-551 C	2.7892	50/50	2.7892
966802	AG1-551 E	1.1954	50/50	1.1954
966931	AG1-431A	92.4000	50/50	92.4000
WEC	WEC	0.1877	Confirmed LTF	0.1877
LGEE	LGEE	0.3833	Confirmed LTF	0.3833
CPL	CPL	2.2325	Confirmed LTF	2.2325
CBM-W2	CBM-W2	8.1536	Confirmed LTF	8.1536
NY	NY	0.2024	Confirmed LTF	0.2024
TVA	TVA	1.5288	Confirmed LTF	1.5288
O-066	O-066	2.9074	Confirmed LTF	2.9074
SIGE	SIGE	0.1138	Confirmed LTF	0.1138
CBM-S2	CBM-S2	24.0016	Confirmed LTF	24.0016
CBM-S1	CBM-S1	0.3819	Confirmed LTF	0.3819
G-007	G-007	0.4568	Confirmed LTF	0.4568
MEC	MEC	1.1202	Confirmed LTF	1.1202
LAGN	LAGN	1.9075	Confirmed LTF	1.9075
AA2-074	AA2-074	1.4742	LTF	1.4742
CBM-W1	CBM-W1	7.9073	Confirmed LTF	7.9073

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334699	314639	6TANGLEW	DVP	313851	6ECITYDP2	DVP	1	DVP_P4-2: 246T247	breaker	1204.0	169.55	172.35	DC	33.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314582	3KELFORD	0.3274	50/50	0.3274
314589	3MURPHYS	0.0528	50/50	0.0528
314594	6PLYMOTH	0.2090	50/50	0.2090
314639	6TANGLEW	1.6344	50/50	1.6344
315292	1DOMTR78	2.5848	50/50	2.5848
315293	1DOMTR9	13.3689	50/50	13.3689
315294	1DOMTR10	16.3835	50/50	16.3835
315601	1CONETOE2SOL	1.0568	50/50	1.0568
315602	1HOLLOMANSOL	1.7275	50/50	1.7275
315605	6W1-029WIND	4.1557	50/50	4.1557
315606	3AA2-053SOLA	0.9032	50/50	0.9032
315611	6Z1-036WIND	3.7364	50/50	3.7364
315614	AA2-178 C	4.0828	50/50	4.0828
316140	AB2-099 C (Suspended)	0.5434	50/50	0.5434
316141	AB2-099 E (Suspended)	0.2329	50/50	0.2329
900672	V4-068 E	0.1835	50/50	0.1835
901082	W1-029 E	176.2794	50/50	176.2794
916042	Z1-036 E (Suspended)	158.6744	50/50	158.6744
917122	Z2-027 E	4.4397	50/50	4.4397
917332	Z2-043 E	0.9765	50/50	0.9765
917342	Z2-044 E	0.2876	Adder	0.34
917512	Z2-088 E OP1	6.2689	50/50	6.2689
918512	AA1-065 E OP	4.9027	50/50	4.9027
918532	AA1-067 E	0.7268	50/50	0.7268
919692	AA2-053 E OP	2.3506	50/50	2.3506
919702	AA2-057 E OP	1.7609	Adder	2.07
920592	AA2-165 E	0.2420	Adder	0.28
920692	AA2-178 E	11.0906	50/50	11.0906
923262	AB1-132 C OP (Suspended)	7.0872	Adder	8.34
923263	AB1-132 E OP (Suspended)	3.0374	Adder	3.57
925121	AB2-169 C	1.6676	50/50	1.6676
925122	AB2-169 E	9.4857	50/50	9.4857
926070	AC1-086 C	10.4367	Adder	12.28
926071	AC1-086 E	4.7501	Adder	5.59
926201	AC1-098 C	4.4439	50/50	4.4439
926202	AC1-098 E	2.6475	50/50	2.6475
926211	AC1-099 C	1.4892	50/50	1.4892
926212	AC1-099 E	0.8746	50/50	0.8746
927024	AC1-189 C	7.3591	50/50	7.3591
927025	AC1-189 E	3.6657	50/50	3.6657

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927145	AC1-208 C	5.6796	50/50	5.6796
927146	AC1-208 E	2.5117	50/50	2.5117
932631	AC2-084 C	6.3350	50/50	6.3350
932632	AC2-084 E	3.1202	50/50	3.1202
933991	AD1-023 C	25.7335	50/50	25.7335
933992	AD1-023 E	14.0093	50/50	14.0093
934331	AD1-057 C O1	4.9218	Adder	5.79
934332	AD1-057 E O1	2.6255	Adder	3.09
934521	AD1-076 C	120.6153	50/50	120.6153
934522	AD1-076 E	61.4171	50/50	61.4171
936401	AD2-051 C O1	10.5528	50/50	10.5528
936402	AD2-051 E O1	4.5313	50/50	4.5313
938221	AE1-035 C	0.4319	50/50	0.4319
938222	AE1-035 E	1.3482	50/50	1.3482
940491	AE2-034 C	19.4086	50/50	19.4086
940492	AE2-034 E	8.3180	50/50	8.3180
941501	AE2-147 C	60.7860	50/50	60.7860
941502	AE2-147 E	40.5240	50/50	40.5240
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1767	50/50	0.1767
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.6028	50/50	0.6028
943171	AE2-346 C	1.3043	50/50	1.3043
943172	AE2-346 E	0.5590	50/50	0.5590
944871	AF1-152 C	20.2620	50/50	20.2620
944872	AF1-152 E	13.5080	50/50	13.5080
945711	AF1-236 C O1	212.4782	50/50	212.4782
945712	AF1-236 E O1	131.2392	50/50	131.2392
957521	AF2-046 C	11.3123	50/50	11.3123
957522	AF2-046 E	5.6902	50/50	5.6902
957531	AF2-047 C	46.1186	50/50	46.1186
957532	AF2-047 E	23.1979	50/50	23.1979
957821	AF2-076 C	6.1275	50/50	6.1275
957822	AF2-076 E	4.0850	50/50	4.0850
957861	AF2-080 C	6.6838	50/50	6.6838
957862	AF2-080 E	2.9629	50/50	2.9629
959511	AF2-242 C	10.4908	50/50	10.4908
959512	AF2-242 E	8.1595	50/50	8.1595
961671	AG1-007 C	0.9044	50/50	0.9044
961672	AG1-007 E	0.5051	50/50	0.5051
961681	AG1-008 C	11.3350	50/50	11.3350
961682	AG1-008 E	5.6675	50/50	5.6675
961931	AG1-036 C	1.0986	50/50	1.0986
961932	AG1-036 E	0.7324	50/50	0.7324
961941	AG1-037 C	0.4658	50/50	0.4658
961942	AG1-037 E	0.3105	50/50	0.3105
962331	AG1-082 C	1.8632	50/50	1.8632
962332	AG1-082 E	1.2422	50/50	1.2422
962341	AG1-083 C	1.8632	50/50	1.8632
962342	AG1-083 E	1.2422	50/50	1.2422
962351	AG1-084 C	1.8085	50/50	1.8085
962352	AG1-084 E	1.2057	50/50	1.2057
962361	AG1-085 C	1.8085	50/50	1.8085

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962362	AG1-085 E	1.2057	50/50	1.2057
962571	AG1-106 C	1.5383	Adder	3.41
962572	AG1-106 E	0.6976	Adder	1.55
964491	AG1-312 C O1	24.7968	50/50	24.7968
964492	AG1-312 E O1	6.1992	50/50	6.1992
964501	AG1-313 C O2	3.4069	50/50	3.4069
964502	AG1-313 E O2	2.2713	50/50	2.2713
965631	AG1-431	123.0137	50/50	123.0137
965691	AG1-437 C O1	17.7330	50/50	17.7330
965692	AG1-437 E O1	11.8220	50/50	11.8220
965701	AG1-438 C O1	17.7330	50/50	17.7330
965702	AG1-438 E O1	11.8220	50/50	11.8220
965711	AG1-439 C O1	18.9585	50/50	18.9585
965712	AG1-439 E O1	12.6390	50/50	12.6390
965741	AG1-442 O1	10.3442	50/50	10.3442
965751	AG1-443 O1	10.3442	50/50	10.3442
965761	AG1-444 O1	10.1112	50/50	10.1112
966491	AG1-518 O2	33.7695	50/50	33.7695
966801	AG1-551 C	2.7908	50/50	2.7908
966802	AG1-551 E	1.1960	50/50	1.1960
966931	AG1-431A	92.4220	50/50	92.4220
WEC	WEC	0.1909	Confirmed LTF	0.1909
LGEE	LGEE	0.3895	Confirmed LTF	0.3895
CPL	CPL	2.2393	Confirmed LTF	2.2393
CBM-W2	CBM-W2	8.2432	Confirmed LTF	8.2432
NY	NY	0.1969	Confirmed LTF	0.1969
TVA	TVA	1.5428	Confirmed LTF	1.5428
O-066	O-066	2.8401	Confirmed LTF	2.8401
SIGE	SIGE	0.1138	Confirmed LTF	0.1138
CBM-S2	CBM-S2	24.1060	Confirmed LTF	24.1060
CBM-S1	CBM-S1	0.3857	Confirmed LTF	0.3857
G-007	G-007	0.4463	Confirmed LTF	0.4463
MEC	MEC	1.1361	Confirmed LTF	1.1361
LAGN	LAGN	1.9250	Confirmed LTF	1.9250
AA2-074	AA2-074	1.4791	LTF	1.4791
CBM-W1	CBM-W1	8.0475	Confirmed LTF	8.0475

13.5.10 Index 10

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334832	314645	6SLIGO L269	DVP	963820	AG1-235 TAP	DVP	1	DVP_P4-2: 246T247	breaker	699.0	125.98	128.34	DC	16.51

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.7762	50/50	0.7762
313717	6SLIGO L2192	4.2819	50/50	4.2819
314594	6PLYMOTH	0.1021	50/50	0.1021
314632	6AYDLETOLD	5.1019	50/50	5.1019
314638	6ELIZ CT	0.4538	50/50	0.4538
314639	6TANGLEW	0.7989	50/50	0.7989
314643	3O INLET	0.9739	50/50	0.9739
315292	1DOMTR78	1.2624	50/50	1.2624
315293	1DOMTR9	6.5292	50/50	6.5292
315294	1DOMTR10	8.0015	50/50	8.0015
315603	6AA1-139SOLA	3.4828	50/50	3.4828
315605	6W1-029WIND	2.0312	50/50	2.0312
315611	6Z1-036WIND	1.8261	50/50	1.8261
315614	AA2-178 C	1.9949	50/50	1.9949
316140	AB2-099 C (Suspended)	0.2252	Adder	0.26
316141	AB2-099 E (Suspended)	0.0965	Adder	0.11
901082	W1-029 E	86.1587	50/50	86.1587
913392	Y1-086 E	4.6928	50/50	4.6928
916042	Z1-036 E (Suspended)	77.5486	50/50	77.5486
917122	Z2-027 E	2.1701	50/50	2.1701
917332	Z2-043 E	0.4047	Adder	0.48
917512	Z2-088 E OP1	2.5962	Adder	3.05
918512	AA1-065 E OP	2.0335	Adder	2.39
918532	AA1-067 E	0.3013	Adder	0.35
919152	AA1-139 E	10.0980	50/50	10.0980
920692	AA2-178 E	5.4190	50/50	5.4190
923832	AB2-022 E	2.6492	50/50	2.6492
925121	AB2-169 C	0.8142	50/50	0.8142
925122	AB2-169 E	4.6312	50/50	4.6312
926201	AC1-098 C	1.8399	Adder	2.16
926202	AC1-098 E	1.0961	Adder	1.29
926211	AC1-099 C	0.6166	Adder	0.73
926212	AC1-099 E	0.3621	Adder	0.43
927024	AC1-189 C	3.0488	Adder	3.59
927025	AC1-189 E	1.5187	Adder	1.79
932631	AC2-084 C	2.6229	Adder	3.09
932632	AC2-084 E	1.2919	Adder	1.52
933991	AD1-023 C	12.5680	50/50	12.5680
933992	AD1-023 E	6.8420	50/50	6.8420
934521	AD1-076 C	58.9190	50/50	58.9190
934522	AD1-076 E	30.0015	50/50	30.0015

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936401	AD2-051 C O1	4.3769	Adder	5.15
936402	AD2-051 E O1	1.8794	Adder	2.21
937221	AD2-160 C O1	6.2012	50/50	6.2012
937222	AD2-160 E O1	3.2518	50/50	3.2518
938222	AE1-035 E	0.5592	Adder	0.66
938535	AE1-072 C	45.0361	50/50	45.0361
938536	AE1-072 E	23.2004	50/50	23.2004
940491	AE2-034 C	9.4832	50/50	9.4832
940492	AE2-034 E	4.0642	50/50	4.0642
941501	AE2-147 C	29.7099	50/50	29.7099
941502	AE2-147 E	19.8066	50/50	19.8066
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.2499	Adder	0.29
942401	AE2-253 C	6.5226	50/50	6.5226
942402	AE2-253 E	2.9304	50/50	2.9304
943171	AE2-346 C	0.5406	Adder	0.64
943172	AE2-346 E	0.2317	Adder	0.27
944871	AF1-152 C	9.9033	50/50	9.9033
944872	AF1-152 E	6.6022	50/50	6.6022
945711	AF1-236 C O1	103.8182	50/50	103.8182
945712	AF1-236 E O1	64.1244	50/50	64.1244
957531	AF2-047 C	22.5338	50/50	22.5338
957532	AF2-047 E	11.3347	50/50	11.3347
957821	AF2-076 C	2.5416	Adder	2.99
957822	AF2-076 E	1.6944	Adder	1.99
957861	AF2-080 C	2.7691	Adder	3.26
957862	AF2-080 E	1.2275	Adder	1.44
957871	AF2-081 C	15.7080	50/50	15.7080
957872	AF2-081 E	6.7320	50/50	6.7320
959511	AF2-242 C	5.1205	50/50	5.1205
959512	AF2-242 E	3.9826	50/50	3.9826
961671	AG1-007 C	0.1985	Adder	0.44
961672	AG1-007 E	0.1108	Adder	0.25
961931	AG1-036 C	0.2412	Adder	0.54
961932	AG1-036 E	0.1608	Adder	0.36
961941	AG1-037 C	0.1023	Adder	0.23
961942	AG1-037 E	0.0682	Adder	0.15
962331	AG1-082 C	0.4093	Adder	0.91
962332	AG1-082 E	0.2729	Adder	0.61
962341	AG1-083 C	0.4093	Adder	0.91
962342	AG1-083 E	0.2729	Adder	0.61
962351	AG1-084 C	0.3974	Adder	0.88
962352	AG1-084 E	0.2649	Adder	0.59
962361	AG1-085 C	0.3974	Adder	0.88
962362	AG1-085 E	0.2649	Adder	0.59
964491	AG1-312 C O1	12.1027	50/50	12.1027
964492	AG1-312 E O1	3.0257	50/50	3.0257
964501	AG1-313 C O2	0.7478	Adder	1.66
964502	AG1-313 E O2	0.4985	Adder	1.11
965631	AG1-431	60.1053	50/50	60.1053
965691	AG1-437 C O1	8.6592	50/50	8.6592
965692	AG1-437 E O1	5.7728	50/50	5.7728
965701	AG1-438 C O1	8.6592	50/50	8.6592

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965702	AG1-438 E O1	5.7728	50/50	5.7728
965711	AG1-439 C O1	4.1613	Adder	9.24
965712	AG1-439 E O1	2.7742	Adder	6.16
965741	AG1-442 O1	5.0512	50/50	5.0512
965751	AG1-443 O1	5.0512	50/50	5.0512
965761	AG1-444 O1	2.2193	Adder	4.93
966491	AG1-518 O2	16.5055	50/50	16.5055
966801	AG1-551 C	0.6134	Adder	1.36
966802	AG1-551 E	0.2629	Adder	0.58
966931	AG1-431A	45.1580	50/50	45.1580
WEC	WEC	0.0860	Confirmed LTF	0.0860
LGEE	LGEE	0.1759	Confirmed LTF	0.1759
CPL	CPL	1.0797	Confirmed LTF	1.0797
CBM-W2	CBM-W2	3.8259	Confirmed LTF	3.8259
NY	NY	0.1089	Confirmed LTF	0.1089
TVA	TVA	0.7224	Confirmed LTF	0.7224
O-066	O-066	1.5479	Confirmed LTF	1.5479
SIGE	SIGE	0.0558	Confirmed LTF	0.0558
CBM-S2	CBM-S2	11.5466	Confirmed LTF	11.5466
CBM-S1	CBM-S1	0.1797	Confirmed LTF	0.1797
G-007	G-007	0.2425	Confirmed LTF	0.2425
MEC	MEC	0.5180	Confirmed LTF	0.5180
LAGN	LAGN	0.9013	Confirmed LTF	0.9013
CBM-W1	CBM-W1	3.6031	Confirmed LTF	3.6031

13.5.11 Index 11

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334896	314647	6SHAWBRO	DVP	938530	AE1-072_TAP	DVP	1	DVP_P4-2: 246T247	breaker	699.0	115.93	118.29	DC	16.51

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.7762	50/50	0.7762
313717	6SLIGO L2192	4.2819	50/50	4.2819
314594	6PLYMOTH	0.1021	50/50	0.1021
314632	6AYDLETOLD	5.1019	50/50	5.1019
314638	6ELIZ CT	0.4538	50/50	0.4538
314639	6TANGLEW	0.7989	50/50	0.7989
314643	3O INLET	0.9739	50/50	0.9739
315292	1DOMTR78	1.2624	50/50	1.2624
315293	1DOMTR9	6.5292	50/50	6.5292
315294	1DOMTR10	8.0015	50/50	8.0015
315603	6AA1-139SOLA	3.4828	50/50	3.4828
315605	6W1-029WIND	2.0312	50/50	2.0312
315611	6Z1-036WIND	1.8261	50/50	1.8261
315614	AA2-178 C	1.9949	50/50	1.9949
316140	AB2-099 C (Suspended)	0.2252	Adder	0.26
316141	AB2-099 E (Suspended)	0.0965	Adder	0.11
901082	W1-029 E	86.1587	50/50	86.1587
913392	Y1-086 E	4.6928	50/50	4.6928
916042	Z1-036 E (Suspended)	77.5486	50/50	77.5486
917122	Z2-027 E	2.1701	50/50	2.1701
917332	Z2-043 E	0.4047	Adder	0.48
917512	Z2-088 E OP1	2.5962	Adder	3.05
918512	AA1-065 E OP	2.0335	Adder	2.39
918532	AA1-067 E	0.3013	Adder	0.35
919152	AA1-139 E	10.0980	50/50	10.0980
920692	AA2-178 E	5.4190	50/50	5.4190
923832	AB2-022 E	2.6492	50/50	2.6492
925121	AB2-169 C	0.8142	50/50	0.8142
925122	AB2-169 E	4.6312	50/50	4.6312
927024	AC1-189 C	3.0488	Adder	3.59
927025	AC1-189 E	1.5187	Adder	1.79
933991	AD1-023 C	12.5680	50/50	12.5680
933992	AD1-023 E	6.8420	50/50	6.8420
934521	AD1-076 C	58.9190	50/50	58.9190
934522	AD1-076 E	30.0015	50/50	30.0015
936401	AD2-051 C O1	4.3769	Adder	5.15
936402	AD2-051 E O1	1.8794	Adder	2.21
937221	AD2-160 C O1	6.2012	50/50	6.2012
937222	AD2-160 E O1	3.2518	50/50	3.2518
938222	AE1-035 E	0.5592	Adder	0.66
940491	AE2-034 C	9.4832	50/50	9.4832

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940492	AE2-034 E	4.0642	50/50	4.0642
941501	AE2-147 C	29.7099	50/50	29.7099
941502	AE2-147 E	19.8066	50/50	19.8066
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.2499	Adder	0.29
942401	AE2-253 C	6.5226	50/50	6.5226
942402	AE2-253 E	2.9304	50/50	2.9304
943171	AE2-346 C	0.5406	Adder	0.64
943172	AE2-346 E	0.2317	Adder	0.27
944871	AF1-152 C	9.9033	50/50	9.9033
944872	AF1-152 E	6.6022	50/50	6.6022
945711	AF1-236 C O1	103.8182	50/50	103.8182
945712	AF1-236 E O1	64.1244	50/50	64.1244
957531	AF2-047 C	22.5338	50/50	22.5338
957532	AF2-047 E	11.3347	50/50	11.3347
957821	AF2-076 C	2.5416	Adder	2.99
957822	AF2-076 E	1.6944	Adder	1.99
957861	AF2-080 C	2.7691	Adder	3.26
957862	AF2-080 E	1.2275	Adder	1.44
957871	AF2-081 C	15.7080	50/50	15.7080
957872	AF2-081 E	6.7320	50/50	6.7320
959511	AF2-242 C	5.1205	50/50	5.1205
959512	AF2-242 E	3.9826	50/50	3.9826
961931	AG1-036 C	0.2412	Adder	0.54
961932	AG1-036 E	0.1608	Adder	0.36
961941	AG1-037 C	0.1023	Adder	0.23
961942	AG1-037 E	0.0682	Adder	0.15
962331	AG1-082 C	0.4093	Adder	0.91
962332	AG1-082 E	0.2729	Adder	0.61
962341	AG1-083 C	0.4093	Adder	0.91
962342	AG1-083 E	0.2729	Adder	0.61
962351	AG1-084 C	0.3974	Adder	0.88
962352	AG1-084 E	0.2649	Adder	0.59
962361	AG1-085 C	0.3974	Adder	0.88
962362	AG1-085 E	0.2649	Adder	0.59
964491	AG1-312 C O1	12.1027	50/50	12.1027
964492	AG1-312 E O1	3.0257	50/50	3.0257
964501	AG1-313 C O2	0.7478	Adder	1.66
964502	AG1-313 E O2	0.4985	Adder	1.11
965631	AG1-431	60.1053	50/50	60.1053
965691	AG1-437 C O1	8.6592	50/50	8.6592
965692	AG1-437 E O1	5.7728	50/50	5.7728
965701	AG1-438 C O1	8.6592	50/50	8.6592
965702	AG1-438 E O1	5.7728	50/50	5.7728
965711	AG1-439 C O1	4.1613	Adder	9.24
965712	AG1-439 E O1	2.7742	Adder	6.16
965741	AG1-442 O1	5.0512	50/50	5.0512
965751	AG1-443 O1	5.0512	50/50	5.0512
965761	AG1-444 O1	2.2193	Adder	4.93
966491	AG1-518 O2	16.5055	50/50	16.5055
966801	AG1-551 C	0.6134	Adder	1.36
966802	AG1-551 E	0.2629	Adder	0.58
966931	AG1-431A	45.1580	50/50	45.1580

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
WEC	WEC	0.0860	Confirmed LTF	0.0860
LGEE	LGEE	0.1759	Confirmed LTF	0.1759
CPL	CPL	1.0797	Confirmed LTF	1.0797
CBM-W2	CBM-W2	3.8259	Confirmed LTF	3.8259
NY	NY	0.1089	Confirmed LTF	0.1089
TVA	TVA	0.7224	Confirmed LTF	0.7224
O-066	O-066	1.5479	Confirmed LTF	1.5479
SIGE	SIGE	0.0558	Confirmed LTF	0.0558
CBM-S2	CBM-S2	11.5466	Confirmed LTF	11.5466
CBM-S1	CBM-S1	0.1797	Confirmed LTF	0.1797
G-007	G-007	0.2425	Confirmed LTF	0.2425
MEC	MEC	0.5180	Confirmed LTF	0.5180
LAGN	LAGN	0.9013	Confirmed LTF	0.9013
CBM-W1	CBM-W1	3.6031	Confirmed LTF	3.6031

13.5.12 Index 12

ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334685	314651	6WINFALL	DVP	314639	6TANGLEW	DVP	1	DVP_P4-2: 246T247	breaker	1163.0	179.37	182.27	DC	33.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314582	3KELFORD	0.3276	50/50	0.3276
314589	3MURPHYS	0.0529	50/50	0.0529
314594	6PLYMOTH	0.2090	50/50	0.2090
315131	1EDGECEMA (Deactivation : 22/04/2019)	4.5287	Adder	5.33
315132	1EDGECEMB (Deactivation : 22/04/2019)	4.5287	Adder	5.33
315292	1DOMTR78	2.5854	50/50	2.5854
315293	1DOMTR9	13.3718	50/50	13.3718
315294	1DOMTR10	16.3870	50/50	16.3870
315601	1CONETOE2SOL	1.0574	50/50	1.0574
315602	1HOLLOMANSOL	1.7282	50/50	1.7282
315605	6W1-029WIND	4.1562	50/50	4.1562
315606	3AA2-053SOLA	0.9038	50/50	0.9038
315611	6Z1-036WIND	3.7368	50/50	3.7368
315614	AA2-178 C	4.0834	50/50	4.0834
316140	AB2-099 C (Suspended)	0.5437	50/50	0.5437
316141	AB2-099 E (Suspended)	0.2330	50/50	0.2330
900672	V4-068 E	0.1836	50/50	0.1836
901082	W1-029 E	176.2977	50/50	176.2977
916042	Z1-036 E (Suspended)	158.6927	50/50	158.6927
917332	Z2-043 E	0.9770	50/50	0.9770
917342	Z2-044 E	0.2879	Adder	0.34
917512	Z2-088 E OP1	6.2724	50/50	6.2724
918512	AA1-065 E OP	4.9046	50/50	4.9046
918532	AA1-067 E	0.7271	50/50	0.7271
919692	AA2-053 E OP	2.3521	50/50	2.3521
919702	AA2-057 E OP	1.7623	Adder	2.07
920592	AA2-165 E	0.2422	Adder	0.28
920692	AA2-178 E	11.0923	50/50	11.0923
923262	AB1-132 C OP (Suspended)	7.0922	Adder	8.34
923263	AB1-132 E OP (Suspended)	3.0395	Adder	3.58
925121	AB2-169 C	1.6680	50/50	1.6680
925122	AB2-169 E	9.4882	50/50	9.4882
926070	AC1-086 C	10.4441	Adder	12.29
926071	AC1-086 E	4.7534	Adder	5.59
926201	AC1-098 C	4.4466	50/50	4.4466
926202	AC1-098 E	2.6490	50/50	2.6490
926211	AC1-099 C	1.4901	50/50	1.4901
926212	AC1-099 E	0.8751	50/50	0.8751

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
927024	AC1-189 C	7.3633	50/50	7.3633
927025	AC1-189 E	3.6679	50/50	3.6679
927145	AC1-208 C	5.6840	50/50	5.6840
927146	AC1-208 E	2.5137	50/50	2.5137
932631	AC2-084 C	6.3387	50/50	6.3387
932632	AC2-084 E	3.1221	50/50	3.1221
933991	AD1-023 C	25.7389	50/50	25.7389
933992	AD1-023 E	14.0123	50/50	14.0123
934331	AD1-057 C O1	4.9260	Adder	5.8
934332	AD1-057 E O1	2.6277	Adder	3.09
934521	AD1-076 C	120.6377	50/50	120.6377
934522	AD1-076 E	61.4286	50/50	61.4286
936401	AD2-051 C O1	10.5565	50/50	10.5565
936402	AD2-051 E O1	4.5329	50/50	4.5329
938221	AE1-035 C	0.4321	50/50	0.4321
938222	AE1-035 E	1.3488	50/50	1.3488
940491	AE2-034 C	19.4116	50/50	19.4116
940492	AE2-034 E	8.3192	50/50	8.3192
941501	AE2-147 C	60.7923	50/50	60.7923
941502	AE2-147 E	40.5282	50/50	40.5282
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1767	50/50	0.1767
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.6031	50/50	0.6031
943171	AE2-346 C	1.3049	50/50	1.3049
943172	AE2-346 E	0.5592	50/50	0.5592
944871	AF1-152 C	20.2641	50/50	20.2641
944872	AF1-152 E	13.5094	50/50	13.5094
945711	AF1-236 C O1	212.5104	50/50	212.5104
945712	AF1-236 E O1	131.2591	50/50	131.2591
957521	AF2-046 C	11.3193	50/50	11.3193
957522	AF2-046 E	5.6937	50/50	5.6937
957531	AF2-047 C	46.1256	50/50	46.1256
957532	AF2-047 E	23.2014	50/50	23.2014
957821	AF2-076 C	6.1296	50/50	6.1296
957822	AF2-076 E	4.0864	50/50	4.0864
957861	AF2-080 C	6.6877	50/50	6.6877
957862	AF2-080 E	2.9646	50/50	2.9646
959511	AF2-242 C	10.4940	50/50	10.4940
959512	AF2-242 E	8.1620	50/50	8.1620
961671	AG1-007 C	0.9050	50/50	0.9050
961672	AG1-007 E	0.5054	50/50	0.5054
961681	AG1-008 C	11.3420	50/50	11.3420
961682	AG1-008 E	5.6710	50/50	5.6710
961931	AG1-036 C	1.0992	50/50	1.0992
961932	AG1-036 E	0.7328	50/50	0.7328
961941	AG1-037 C	0.4660	50/50	0.4660
961942	AG1-037 E	0.3107	50/50	0.3107
962331	AG1-082 C	1.8641	50/50	1.8641
962332	AG1-082 E	1.2427	50/50	1.2427
962341	AG1-083 C	1.8641	50/50	1.8641
962342	AG1-083 E	1.2427	50/50	1.2427
962351	AG1-084 C	1.8094	50/50	1.8094

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962352	AG1-084 E	1.2062	50/50	1.2062
962361	AG1-085 C	1.8094	50/50	1.8094
962362	AG1-085 E	1.2062	50/50	1.2062
962571	AG1-106 C	1.5393	Adder	3.42
962572	AG1-106 E	0.6981	Adder	1.55
964491	AG1-312 C O1	24.8046	50/50	24.8046
964492	AG1-312 E O1	6.2012	50/50	6.2012
964501	AG1-313 C O2	3.4092	50/50	3.4092
964502	AG1-313 E O2	2.2728	50/50	2.2728
965183	AG1-383 BAT	0.4136	Merchant Transmission	0.4136
965631	AG1-431	123.0323	50/50	123.0323
965691	AG1-437 C O1	17.7372	50/50	17.7372
965692	AG1-437 E O1	11.8248	50/50	11.8248
965701	AG1-438 C O1	17.7372	50/50	17.7372
965702	AG1-438 E O1	11.8248	50/50	11.8248
965711	AG1-439 C O1	18.9690	50/50	18.9690
965712	AG1-439 E O1	12.6460	50/50	12.6460
965741	AG1-442 O1	10.3467	50/50	10.3467
965751	AG1-443 O1	10.3467	50/50	10.3467
965761	AG1-444 O1	10.1168	50/50	10.1168
966491	AG1-518 O2	33.7735	50/50	33.7735
966801	AG1-551 C	2.7917	50/50	2.7917
966802	AG1-551 E	1.1965	50/50	1.1965
966931	AG1-431A	92.4360	50/50	92.4360
WEC	WEC	0.1934	Confirmed LTF	0.1934
LGEE	LGEE	0.3946	Confirmed LTF	0.3946
CPL	CPL	2.2447	Confirmed LTF	2.2447
CBM-W2	CBM-W2	8.3149	Confirmed LTF	8.3149
NY	NY	0.1924	Confirmed LTF	0.1924
TVA	TVA	1.5540	Confirmed LTF	1.5540
O-066	O-066	2.7862	Confirmed LTF	2.7862
SIGE	SIGE	0.1138	Confirmed LTF	0.1138
CBM-S2	CBM-S2	24.1895	Confirmed LTF	24.1895
CBM-S1	CBM-S1	0.3887	Confirmed LTF	0.3887
G-007	G-007	0.4379	Confirmed LTF	0.4379
MEC	MEC	1.1488	Confirmed LTF	1.1488
LAGN	LAGN	1.9390	Confirmed LTF	1.9390
AA2-074	AA2-074	1.4823	LTF	1.4823
CBM-W1	CBM-W1	8.1596	Confirmed LTF	8.1596

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334822	938530	AE1-072_TAP	DVP	314645	6SLIGO L269	DVP	1	DVP_P4-2: 246T247	breaker	699.0	126.85	129.21	DC	16.51

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.7762	50/50	0.7762
313717	6SLIGO L2192	4.2819	50/50	4.2819
314594	6PLYMOTH	0.1021	50/50	0.1021
314632	6AYDLETOLD	5.1019	50/50	5.1019
314638	6ELIZ CT	0.4538	50/50	0.4538
314639	6TANGLEW	0.7989	50/50	0.7989
314643	3O INLET	0.9739	50/50	0.9739
315292	1DOMTR78	1.2624	50/50	1.2624
315293	1DOMTR9	6.5292	50/50	6.5292
315294	1DOMTR10	8.0015	50/50	8.0015
315603	6AA1-139SOLA	3.4828	50/50	3.4828
315605	6W1-029WIND	2.0312	50/50	2.0312
315611	6Z1-036WIND	1.8261	50/50	1.8261
315614	AA2-178 C	1.9949	50/50	1.9949
316140	AB2-099 C (Suspended)	0.2252	Adder	0.26
316141	AB2-099 E (Suspended)	0.0965	Adder	0.11
901082	W1-029 E	86.1587	50/50	86.1587
913392	Y1-086 E	4.6928	50/50	4.6928
916042	Z1-036 E (Suspended)	77.5486	50/50	77.5486
917122	Z2-027 E	2.1701	50/50	2.1701
917332	Z2-043 E	0.4047	Adder	0.48
917512	Z2-088 E OP1	2.5962	Adder	3.05
918512	AA1-065 E OP	2.0335	Adder	2.39
918532	AA1-067 E	0.3013	Adder	0.35
919152	AA1-139 E	10.0980	50/50	10.0980
920692	AA2-178 E	5.4190	50/50	5.4190
923832	AB2-022 E	2.6492	50/50	2.6492
925121	AB2-169 C	0.8142	50/50	0.8142
925122	AB2-169 E	4.6312	50/50	4.6312
926201	AC1-098 C	1.8399	Adder	2.16
926202	AC1-098 E	1.0961	Adder	1.29
926211	AC1-099 C	0.6166	Adder	0.73
926212	AC1-099 E	0.3621	Adder	0.43
927024	AC1-189 C	3.0488	Adder	3.59
927025	AC1-189 E	1.5187	Adder	1.79
932631	AC2-084 C	2.6229	Adder	3.09
932632	AC2-084 E	1.2919	Adder	1.52
933991	AD1-023 C	12.5680	50/50	12.5680
933992	AD1-023 E	6.8420	50/50	6.8420
934521	AD1-076 C	58.9190	50/50	58.9190
934522	AD1-076 E	30.0015	50/50	30.0015

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
936401	AD2-051 C O1	4.3769	Adder	5.15
936402	AD2-051 E O1	1.8794	Adder	2.21
937221	AD2-160 C O1	6.2012	50/50	6.2012
937222	AD2-160 E O1	3.2518	50/50	3.2518
938222	AE1-035 E	0.5592	Adder	0.66
938535	AE1-072 C	45.0361	50/50	45.0361
938536	AE1-072 E	23.2004	50/50	23.2004
940491	AE2-034 C	9.4832	50/50	9.4832
940492	AE2-034 E	4.0642	50/50	4.0642
941501	AE2-147 C	29.7099	50/50	29.7099
941502	AE2-147 E	19.8066	50/50	19.8066
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.2499	Adder	0.29
942401	AE2-253 C	6.5226	50/50	6.5226
942402	AE2-253 E	2.9304	50/50	2.9304
943171	AE2-346 C	0.5406	Adder	0.64
943172	AE2-346 E	0.2317	Adder	0.27
944871	AF1-152 C	9.9033	50/50	9.9033
944872	AF1-152 E	6.6022	50/50	6.6022
945711	AF1-236 C O1	103.8182	50/50	103.8182
945712	AF1-236 E O1	64.1244	50/50	64.1244
957531	AF2-047 C	22.5338	50/50	22.5338
957532	AF2-047 E	11.3347	50/50	11.3347
957821	AF2-076 C	2.5416	Adder	2.99
957822	AF2-076 E	1.6944	Adder	1.99
957861	AF2-080 C	2.7691	Adder	3.26
957862	AF2-080 E	1.2275	Adder	1.44
957871	AF2-081 C	15.7080	50/50	15.7080
957872	AF2-081 E	6.7320	50/50	6.7320
959511	AF2-242 C	5.1205	50/50	5.1205
959512	AF2-242 E	3.9826	50/50	3.9826
961671	AG1-007 C	0.1985	Adder	0.44
961672	AG1-007 E	0.1108	Adder	0.25
961931	AG1-036 C	0.2412	Adder	0.54
961932	AG1-036 E	0.1608	Adder	0.36
961941	AG1-037 C	0.1023	Adder	0.23
961942	AG1-037 E	0.0682	Adder	0.15
962331	AG1-082 C	0.4093	Adder	0.91
962332	AG1-082 E	0.2729	Adder	0.61
962341	AG1-083 C	0.4093	Adder	0.91
962342	AG1-083 E	0.2729	Adder	0.61
962351	AG1-084 C	0.3974	Adder	0.88
962352	AG1-084 E	0.2649	Adder	0.59
962361	AG1-085 C	0.3974	Adder	0.88
962362	AG1-085 E	0.2649	Adder	0.59
964491	AG1-312 C O1	12.1027	50/50	12.1027
964492	AG1-312 E O1	3.0257	50/50	3.0257
964501	AG1-313 C O2	0.7478	Adder	1.66
964502	AG1-313 E O2	0.4985	Adder	1.11
965631	AG1-431	60.1053	50/50	60.1053
965691	AG1-437 C O1	8.6592	50/50	8.6592
965692	AG1-437 E O1	5.7728	50/50	5.7728
965701	AG1-438 C O1	8.6592	50/50	8.6592

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965702	AG1-438 E O1	5.7728	50/50	5.7728
965711	AG1-439 C O1	4.1613	Adder	9.24
965712	AG1-439 E O1	2.7742	Adder	6.16
965741	AG1-442 O1	5.0512	50/50	5.0512
965751	AG1-443 O1	5.0512	50/50	5.0512
965761	AG1-444 O1	2.2193	Adder	4.93
966491	AG1-518 O2	16.5055	50/50	16.5055
966801	AG1-551 C	0.6134	Adder	1.36
966802	AG1-551 E	0.2629	Adder	0.58
966931	AG1-431A	45.1580	50/50	45.1580
WEC	WEC	0.0860	Confirmed LTF	0.0860
LGEE	LGEE	0.1759	Confirmed LTF	0.1759
CPL	CPL	1.0797	Confirmed LTF	1.0797
CBM-W2	CBM-W2	3.8259	Confirmed LTF	3.8259
NY	NY	0.1089	Confirmed LTF	0.1089
TVA	TVA	0.7224	Confirmed LTF	0.7224
O-066	O-066	1.5479	Confirmed LTF	1.5479
SIGE	SIGE	0.0558	Confirmed LTF	0.0558
CBM-S2	CBM-S2	11.5466	Confirmed LTF	11.5466
CBM-S1	CBM-S1	0.1797	Confirmed LTF	0.1797
G-007	G-007	0.2425	Confirmed LTF	0.2425
MEC	MEC	0.5180	Confirmed LTF	0.5180
LAGN	LAGN	0.9013	Confirmed LTF	0.9013
CBM-W1	CBM-W1	3.6031	Confirmed LTF	3.6031

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
174334739	963820	AG1-235 TAP	DVP	314466	6FENTRES	DVP	1	DVP_P4-2: 246T247	breaker	699.0	153.12	155.48	DC	16.51

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.7762	50/50	0.7762
313717	6SLIGO L2192	4.2819	50/50	4.2819
314594	6PLYMOTH	0.1021	50/50	0.1021
314632	6AYDLETOLD	5.1019	50/50	5.1019
314638	6ELIZ CT	0.4538	50/50	0.4538
314639	6TANGLEW	0.7989	50/50	0.7989
314643	3O INLET	0.9739	50/50	0.9739
315292	1DOMTR78	1.2624	50/50	1.2624
315293	1DOMTR9	6.5292	50/50	6.5292
315294	1DOMTR10	8.0015	50/50	8.0015
315603	6AA1-139SOLA	3.4828	50/50	3.4828
315605	6W1-029WIND	2.0312	50/50	2.0312
315611	6Z1-036WIND	1.8261	50/50	1.8261
315614	AA2-178 C	1.9949	50/50	1.9949
316140	AB2-099 C (Suspended)	0.2252	Adder	0.26
316141	AB2-099 E (Suspended)	0.0965	Adder	0.11
901082	W1-029 E	86.1587	50/50	86.1587
913392	Y1-086 E	4.6928	50/50	4.6928
916042	Z1-036 E (Suspended)	77.5486	50/50	77.5486
917122	Z2-027 E	2.1701	50/50	2.1701
917332	Z2-043 E	0.4047	Adder	0.48
918512	AA1-065 E OP	2.0335	Adder	2.39
918532	AA1-067 E	0.3013	Adder	0.35
919152	AA1-139 E	10.0980	50/50	10.0980
920692	AA2-178 E	5.4190	50/50	5.4190
923832	AB2-022 E	2.6492	50/50	2.6492
925121	AB2-169 C	0.8142	50/50	0.8142
925122	AB2-169 E	4.6312	50/50	4.6312
927024	AC1-189 C	3.0488	Adder	3.59
927025	AC1-189 E	1.5187	Adder	1.79
933991	AD1-023 C	12.5680	50/50	12.5680
933992	AD1-023 E	6.8420	50/50	6.8420
934521	AD1-076 C	58.9190	50/50	58.9190
934522	AD1-076 E	30.0015	50/50	30.0015
936401	AD2-051 C O1	4.3769	Adder	5.15
936402	AD2-051 E O1	1.8794	Adder	2.21
937221	AD2-160 C O1	6.2012	50/50	6.2012
937222	AD2-160 E O1	3.2518	50/50	3.2518
938222	AE1-035 E	0.5592	Adder	0.66
938535	AE1-072 C	45.0361	50/50	45.0361
938536	AE1-072 E	23.2004	50/50	23.2004

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940491	AE2-034 C	9.4832	50/50	9.4832
940492	AE2-034 E	4.0642	50/50	4.0642
941501	AE2-147 C	29.7099	50/50	29.7099
941502	AE2-147 E	19.8066	50/50	19.8066
941542	AE2-151 E (Withdrawn : 01/08/2021)	0.2499	Adder	0.29
942401	AE2-253 C	6.5226	50/50	6.5226
942402	AE2-253 E	2.9304	50/50	2.9304
943171	AE2-346 C	0.5406	Adder	0.64
943172	AE2-346 E	0.2317	Adder	0.27
944871	AF1-152 C	9.9033	50/50	9.9033
944872	AF1-152 E	6.6022	50/50	6.6022
945711	AF1-236 C O1	103.8182	50/50	103.8182
945712	AF1-236 E O1	64.1244	50/50	64.1244
957531	AF2-047 C	22.5338	50/50	22.5338
957532	AF2-047 E	11.3347	50/50	11.3347
957821	AF2-076 C	2.5416	Adder	2.99
957822	AF2-076 E	1.6944	Adder	1.99
957861	AF2-080 C	2.7691	Adder	3.26
957862	AF2-080 E	1.2275	Adder	1.44
957871	AF2-081 C	15.7080	50/50	15.7080
957872	AF2-081 E	6.7320	50/50	6.7320
959511	AF2-242 C	5.1205	50/50	5.1205
959512	AF2-242 E	3.9826	50/50	3.9826
961941	AG1-037 C	0.1023	Adder	0.23
961942	AG1-037 E	0.0682	Adder	0.15
962331	AG1-082 C	0.4093	Adder	0.91
962332	AG1-082 E	0.2729	Adder	0.61
962341	AG1-083 C	0.4093	Adder	0.91
962342	AG1-083 E	0.2729	Adder	0.61
962351	AG1-084 C	0.3974	Adder	0.88
962352	AG1-084 E	0.2649	Adder	0.59
962361	AG1-085 C	0.3974	Adder	0.88
962362	AG1-085 E	0.2649	Adder	0.59
963821	AG1-235 C O2	126.8717	50/50	126.8717
963822	AG1-235 E O2	84.5811	50/50	84.5811
964491	AG1-312 C O1	12.1027	50/50	12.1027
964492	AG1-312 E O1	3.0257	50/50	3.0257
965631	AG1-431	60.1053	50/50	60.1053
965691	AG1-437 C O1	8.6592	50/50	8.6592
965692	AG1-437 E O1	5.7728	50/50	5.7728
965701	AG1-438 C O1	8.6592	50/50	8.6592
965702	AG1-438 E O1	5.7728	50/50	5.7728
965741	AG1-442 O1	5.0512	50/50	5.0512
965751	AG1-443 O1	5.0512	50/50	5.0512
966491	AG1-518 O2	16.5055	50/50	16.5055
966801	AG1-551 C	0.6134	Adder	1.36
966802	AG1-551 E	0.2629	Adder	0.58
966931	AG1-431A	45.1580	50/50	45.1580
WEC	WEC	0.0860	Confirmed LTF	0.0860
LGEE	LGEE	0.1759	Confirmed LTF	0.1759
CPLE	CPLE	1.0797	Confirmed LTF	1.0797
CBM-W2	CBM-W2	3.8259	Confirmed LTF	3.8259

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
NY	NY	0.1089	Confirmed LTF	0.1089
TVA	TVA	0.7224	Confirmed LTF	0.7224
O-066	O-066	1.5479	Confirmed LTF	1.5479
SIGE	SIGE	0.0558	Confirmed LTF	0.0558
CBM-S2	CBM-S2	11.5466	Confirmed LTF	11.5466
CBM-S1	CBM-S1	0.1797	Confirmed LTF	0.1797
G-007	G-007	0.2425	Confirmed LTF	0.2425
MEC	MEC	0.5180	Confirmed LTF	0.5180
LAGN	LAGN	0.9013	Confirmed LTF	0.9013
CBM-W1	CBM-W1	3.6031	Confirmed LTF	3.6031

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ID	FROM BUS#	FROM BUS	FROM BUS AREA	TO BUS#	TO BUS	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
175590017	966490	AG1-518 TAP	DVP	314537	6SUFFOLK	DVP	1	DVP_P1-2: LN 2020	single	984.18	105.6	110.39	DC	47.09

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313719	3CHESTNUT	0.4266	80/20	0.4266
314582	3KELFORD	0.1925	80/20	0.1925
314589	3MURPHYS	0.0291	80/20	0.0291
314623	3WITAKRS	0.0778	80/20	0.0778
315126	1ROARAP2	0.4164	80/20	0.4164
315128	1ROARAP4	0.3974	80/20	0.3974
315131	1EDGECEMA (Deactivation : 22/04/2019)	3.4174	80/20	3.4174
315132	1EDGECEMB (Deactivation : 22/04/2019)	3.4174	80/20	3.4174
315136	1ROSEMG1	0.7135	80/20	0.7135
315137	1ROSEMS1	0.4424	80/20	0.4424
315138	1ROSEMG2	0.3344	80/20	0.3344
315139	1GASTONA	1.0269	80/20	1.0269
315141	1GASTONB	1.0269	80/20	1.0269
315292	1DOMTR78	2.2301	80/20	2.2301
315293	1DOMTR9	11.5346	80/20	11.5346
315294	1DOMTR10	14.1355	80/20	14.1355
315601	1CONETOE2SOL	0.7028	80/20	0.7028
315602	1HOLLOMANSOL	1.0116	80/20	1.0116
315605	6W1-029WIND	4.4399	80/20	4.4399
315606	3AA2-053SOLA	0.5280	80/20	0.5280
315611	6Z1-036WIND	3.7399	80/20	3.7399
315614	AA2-178 C	3.8465	80/20	3.8465
316020	AB2-059 C OP	0.5947	80/20	0.5947
316140	AB2-099 C (Suspended)	0.3143	80/20	0.3143
920591	AA2-165 C	0.0573	80/20	0.0573
922922	AB1-081 C OP	0.5046	80/20	0.5046
925121	AB2-169 C	1.3763	80/20	1.3763
925591	AC1-034 C	2.4415	80/20	2.4415
926070	AC1-086 C	7.3193	80/20	7.3193
926201	AC1-098 C	2.6606	80/20	2.6606
926211	AC1-099 C	0.8916	80/20	0.8916
927024	AC1-189 C	4.9315	80/20	4.9315
927145	AC1-208 C	3.4265	80/20	3.4265
932631	AC2-084 C	3.7927	80/20	3.7927
933991	AD1-023 C	21.5509	80/20	21.5509
934331	AD1-057 C O1	3.5916	80/20	3.5916
934521	AD1-076 C	106.8508	80/20	106.8508
936401	AD2-051 C O1	6.1811	80/20	6.1811
938221	AE1-035 C	0.2529	80/20	0.2529
940491	AE2-034 C	18.2855	80/20	18.2855

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940571	AE2-044 C	1.5991	80/20	1.5991
941501	AE2-147 C	64.9431	80/20	64.9431
941541	AE2-151 C (Withdrawn : 01/08/2021)	0.1031	80/20	0.1031
943171	AE2-346 C	0.7543	80/20	0.7543
944141	AF1-082	1.0280	80/20	1.0280
944871	AF1-152 C	21.6477	80/20	21.6477
945711	AF1-236 C O1	200.1831	80/20	200.1831
957521	AF2-046 C	6.3114	80/20	6.3114
957531	AF2-047 C	43.4499	80/20	43.4499
957861	AF2-080 C	4.4790	80/20	4.4790
959511	AF2-242 C	8.2886	80/20	8.2886
961671	AG1-007 C	0.5973	80/20	0.5973
961681	AG1-008 C	6.3240	80/20	6.3240
961931	AG1-036 C	0.6265	80/20	0.6265
961941	AG1-037 C	0.2694	80/20	0.2694
962331	AG1-082 C	1.0776	80/20	1.0776
962341	AG1-083 C	1.0776	80/20	1.0776
962351	AG1-084 C	1.0558	80/20	1.0558
962361	AG1-085 C	1.0558	80/20	1.0558
962571	AG1-106 C	2.0354	80/20	2.0354
964491	AG1-312 C O1	15.7819	80/20	15.7819
964501	AG1-313 C O2	1.9905	80/20	1.9905
965631	AG1-431	115.8955	80/20	115.8955
965691	AG1-437 C O1	13.9836	80/20	13.9836
965701	AG1-438 C O1	13.9836	80/20	13.9836
965711	AG1-439 C O1	12.6075	80/20	12.6075
965741	AG1-442 O1	8.1571	80/20	8.1571
965751	AG1-443 O1	8.1571	80/20	8.1571
965761	AG1-444 O1	6.7240	80/20	6.7240
966491	AG1-518 O2	47.0895	80/20	47.0895
966801	AG1-551 C	2.0857	80/20	2.0857
966811	AG1-552 C	0.6611	80/20	0.6611
966931	AG1-431A	87.0740	80/20	87.0740
WEC	WEC	0.1200	Confirmed LTF	0.1200
LGEE	LGEE	0.2444	Confirmed LTF	0.2444
CPLE	CPLE	1.4599	Confirmed LTF	1.4599
CBM-W2	CBM-W2	5.2506	Confirmed LTF	5.2506
NY	NY	0.1371	Confirmed LTF	0.1371
TVA	TVA	0.9884	Confirmed LTF	0.9884
SIGE	SIGE	0.0743	Confirmed LTF	0.0743
CBM-S2	CBM-S2	15.6391	Confirmed LTF	15.6391
CBM-S1	CBM-S1	0.2462	Confirmed LTF	0.2462
MEC	MEC	0.7166	Confirmed LTF	0.7166
LAGN	LAGN	1.2338	Confirmed LTF	1.2338
CBM-W1	CBM-W1	5.0332	Confirmed LTF	5.0332

13.6 Contingency Descriptions - Secondary POI

Contingency Name	Contingency Definition
DVP_P4-2: 28942	CONTINGENCY 'DVP_P4-2: 28942' / 2121 OPEN BRANCH FROM BUS 314522 TO BUS 314525 CKT 1 / 314522 6CHCKTUK 230 314525 6KINGFORK 230 1 OPEN BRANCH FROM BUS 314522 TO BUS 314828 CKT 1 / 314522 6CHCKTUK 230 314828 6CHCKT_1 230 1 OPEN BRANCH FROM BUS 314525 TO BUS 314537 CKT 1 / 314525 6KINGFORK 230 314537 6SUFFOLK 230 1 OPEN BRANCH FROM BUS 314525 TO BUS 316150 CKT 1 / 314525 6KINGFORK 230 316150 AD2-215 C 230 1 OPEN BRANCH FROM BUS 314525 TO BUS 935111 CKT 1 / 314525 6KINGFORK 230 935111 AD1-144 C 230 1 OPEN BRANCH FROM BUS 316150 TO BUS 316151 CKT 1 / 316150 AD2-215 C 230 316151 AD2-215 E 230 1 OPEN BRANCH FROM BUS 935111 TO BUS 935112 CKT 1 / 935111 AD1-144 C 230 935112 AD1-144 E 230 1 OPEN BRANCH FROM BUS 314536 TO BUS 314537 CKT 3 / 314536 3SUFFOLK 115 314537 6SUFFOLK 230 3 OPEN BRANCH FROM BUS 314928 TO BUS 314537 CKT 2 / 314928 8SUFFOLK 500 314537 6SUFFOLK 230 2 END
DVP_P1-2: LN 2020	CONTINGENCY 'DVP_P1-2: LN 2020' / 1110 OPEN BRANCH FROM BUS 313851 TO BUS 314638 CKT 1 / 313851 6ECITYDP2 230 314638 6ELIZ CT 230 1 OPEN BRANCH FROM BUS 313851 TO BUS 314639 CKT 1 / 313851 6ECITYDP2 230 314639 6TANGLEW 230 1 OPEN BRANCH FROM BUS 314639 TO BUS 314651 CKT 1 / 314639 6TANGLEW 230 314651 6WINFALL 230 1 OPEN BRANCH FROM BUS 314639 TO BUS 917122 CKT 1 / 314639 6TANGLEW 230 917122 Z2-027 E 230 1 END
DVP_P1-3: 8SUFFOLK-TX#8	CONTINGENCY 'DVP_P1-3: 8SUFFOLK-TX#8' / 2262 OPEN BRANCH FROM BUS 314928 TO BUS 314537 CKT 2 / 314928 8SUFFOLK 500 314537 6SUFFOLK 230 2 END
DVP_P4-2: 211042	CONTINGENCY 'DVP_P4-2: 211042' / 2019 OPEN BRANCH FROM BUS 314480 TO BUS 314508 CKT 1 / 314480 6HUNTSMN 230 314508 6THRASHER 230 1 OPEN BRANCH FROM BUS 314480 TO BUS 314537 CKT 1 / 314480 6HUNTSMN 230 314537 6SUFFOLK 230 1 OPEN BRANCH FROM BUS 314537 TO BUS 314536 CKT 1 / 314537 6SUFFOLK 230 314536 3SUFFOLK 115 1 OPEN BRANCH FROM BUS 314928 TO BUS 314537 CKT 1 / 314928 8SUFFOLK 500 314537 6SUFFOLK 230 1 REMOVE SWSHUNT FROM BUS 314537 /* 314537 6SUFFOLK 230 END

Contingency Name	Contingency Definition
DVP_P1-3: 8SUFFOLK-TX#7	CONTINGENCY 'DVP_P1-3: 8SUFFOLK-TX#7' / 2279 OPEN BRANCH FROM BUS 314928 TO BUS 314537 CKT 1 / 314928 8SUFFOLK 500 314537 6SUFFOLK 230 1 END
DVP_P4-2: 246T247	CONTINGENCY 'DVP_P4-2: 246T247' /* SUFFOLK 230 KV OPEN BRANCH FROM BUS 314537 TO BUS 957820 CKT 1 /* 6SUFFOLK 230.00 - AF2- 076 TAP 230.00 OPEN BRANCH FROM BUS 314537 TO BUS 966490 CKT 1 /* 6SUFFOLK 230.00 - AG1- 518 TAP 230.00 END
DVP_P1-2: LN 247-B	CONTINGENCY 'DVP_P1-2: LN 247-B' OPEN BRANCH FROM BUS 314537 TO BUS 966490 CKT 1 /* 6SUFFOLK 230.00 - AG1- 518 TAP230.00 END

14 Affected Systems

14.1 TVA

TVA Impacts to be determined during later study phases (as applicable).

14.2 Duke Energy Progress

Duke Energy Progress Impacts to be determined during later study phases (as applicable).

15 Attachment 1: One Line Diagram