



**Generation Interconnection
Feasibility Study Report
for
Queue Project AG1-011
COLONIAL TRIAL 230 KV
160 MW Capacity / 160 MW Energy**

January 2021

Table of Contents

1	Introduction.....	4
2	Preface.....	4
3	General	5
4	Point of Interconnection.....	6
4.1	Primary Point of Interconnection	6
4.2	Secondary Point of Interconnection.....	6
5	Cost Summary	6
6	Transmission Owner Scope of Work.....	7
7	Schedule.....	8
8	Transmission Owner Analysis.....	8
8.1	Power Flow Analysis	8
9	Interconnection Customer Requirements.....	9
9.1	System Protection.....	9
9.2	Compliance Issues and Interconnection Customer Requirements	9
9.3	Power Factor Requirements.....	9
10	Revenue Metering and SCADA Requirements	10
10.1	PJM Requirements	10
10.2	Interconnected Transmission Owner Requirements.....	10
11	Summer Peak - Load Flow Analysis	11
11.1	Generation Deliverability	12
11.2	Multiple Facility Contingency	12
11.3	Contribution to Previously Identified Overloads.....	12
11.4	Potential Congestion due to Local Energy Deliverability.....	14
11.5	System Reinforcements - Summer Peak Load Flow - Primary POI.....	16
11.6	Flow Gate Details.....	20
11.6.1	Index 1	21
11.6.2	Index 2	23
11.6.3	Index 3	26
11.6.4	Index 4	31
11.6.5	Index 5	36
11.6.6	Index 6	41

11.6.7	Index 7	45
11.6.8	Index 8	50
11.6.9	Index 9	54
11.6.10	Index 10.....	59
11.6.11	Index 11.....	62
11.6.12	Index 12.....	64
11.6.13	Index 13.....	67
11.6.14	Index 14.....	71
11.6.15	Index 15.....	75
11.6.16	Index 16.....	79
11.6.17	Index 17.....	84
11.6.18	Index 18.....	88
11.7	Queue Dependencies	92
11.8	Contingency Descriptions.....	98
12	Short Circuit Analysis.....	102
12.1	System Reinforcements - Short Circuit.....	102
13	Affected Systems	103
13.1	TVA.....	103
13.2	Duke Energy Progress.....	103
14	Attachment 1: One Line Diagram	104

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.

An Interconnection Customer with a proposed new Customer Facility that has a Maximum Facility Output equal to or greater than 100 MW shall install and maintain, at its expense, phasor measurement units (PMUs). See Section 8.5.3 of Appendix 2 to the Interconnection Service Agreement as well as section 4.3 of PJM Manual 14D for additional information.

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 Storage generating facility located in Surry County, Virginia. The installed facilities will have a total capability of 160 MW with 160 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 30, 2022. This study does not imply a TO commitment to this in-service date.

Queue Number	AG1-011
Project Name	COLONIAL TRIAL 230 KV
State	Virginia
County	Surry
Transmission Owner	Dominion
MFO	160
MWE	160
MWC	160
Fuel	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

AG1-011 "Colonial Trail 230 kV" will interconnect with the Dominion transmission system. The primary POI is a direct connect to the Colonial Trail 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

There is no secondary point of interconnection specified for AG1-011.

5 Cost Summary

The AG1-011 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$3,300,000
Total System Network Upgrade Costs	\$935,052,000 ¹
Total Costs	\$938,352,000

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 AG1-011 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

AG1-011 "Colonial Trail 230 kV" will interconnect with the Dominion transmission system. The primary POI is a direct connect to the Colonial Trail 230 kV substation.

To accommodate the proposed Project, Dominion Energy will add one new 230 kV breaker to the existing Colonial Trail 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 AG1-011 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 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

The Queue Project AG1-011 was evaluated as a 160.0 MW (Capacity 160.0 MW) injection at the Colonial Trail 230 kV substation in the Dominion area. Project AG1-011 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AG1-011 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
168599159	314286	6CHESTFA	230.0	DVP	314214	6CHCKAHM	230.0	DVP	1	DVP_P1-2: LN 2049	single	584.679992676	97.43	100.15	DC	16.27

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)

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
168599058	314212	6FOUR RIVERS	230.0	DVP	314150	6STJOHN	230.0	DVP	1	DVP_P 1-2: LN 574	single	1123.30004883	108.58	108.94	DC	16.1
168598846	314218	6ELMONT	230.0	DVP	314908	8ELMONT	500.0	DVP	2	DVP_P 1-2: LN 557	single	879.840026855	148.56	149.54	DC	22.18
168598874	314218	6ELMONT	230.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P 1-2: LN 557	single	920.918029785	142.59	143.54	DC	22.28
168599001	314225	6CHARCTY	230.0	DVP	314227	6LAKESIDE	230.0	DVP	1	DVP_P 1-2: LN 563	single	984.179992676	106.84	108.03	DC	15.97
168598881	314236	6NRTHEST	230.0	DVP	314218	6ELMONT	230.0	DVP	1	DVP_P 1-2: LN 557	single	678.679992676	116.5	117.45	DC	14.16
168598989	314260	6VARINA	230.0	DVP	314225	6CHARCTY	230.0	DVP	1	DVP_P 1-2: LN 563	single	984.179992676	110.25	111.44	DC	15.97
168598745	314287	6CHESTFB	230.0	DVP	314276	6BASIN	230.0	DVP	1	DVP_P 1-2: LN 563	single	663.640014648	156.25	157.94	DC	16.35
168598746	314287	6CHESTFB	230.0	DVP	314276	6BASIN	230.0	DVP	1	DVP_P 1-2: LN 217	single	663.640014648	147.04	147.07	DC	19.5
168598982	314287	6CHESTFB	230.0	DVP	314260	6VARINA	230.0	DVP	1	DVP_P 1-2: LN 563	single	984.179992676	110.61	111.8	DC	15.97
163066350	314303	6HOPEWLL	230.0	DVP	314286	6CHESTFA	230.0	DVP	1	DVP_P 2-2: BASIN B7	bus	549.0	168.88	176.22	DC	41.1
163066625	314303	6HOPEWLL	230.0	DVP	314286	6CHESTFA	230.0	DVP	1	DVP_P 7-1: LN 212-240-D	tower	549.0	182.83	195.91	DC	71.77
163066626	314303	6HOPEWLL	230.0	DVP	314286	6CHESTFA	230.0	DVP	1	DVP_P 7-1: LN 212-240-C	tower	549.0	175.56	188.63	DC	71.77

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 PROJE C T LOADIN G %	POST PROJE C T LOADIN G %	AC D C	MW IMPAC T
163066695	314303	6HOPEWLL	230.0	DVP	314287	6CHESTF B	230.0	DVP	1	DVP_P 7-1: LN 212-240-D	tower	549.0	143.76	157.2	DC	73.78
168598739	314303	6HOPEWLL	230.0	DVP	314286	6CHESTF A	230.0	DVP	1	DVP_P 1-2: LN 211	single	449.320007324	165.02	177.99	DC	59.74
168598741	314303	6HOPEWLL	230.0	DVP	314286	6CHESTF A	230.0	DVP	1	DVP_P 1-2: LN 240-D	single	449.320007324	153.29	161.31	DC	36.01
168598742	314303	6HOPEWLL	230.0	DVP	314286	6CHESTF A	230.0	DVP	1	Base Case	single	449.320007324	139.64	147.99	DC	37.87
168598772	314303	6HOPEWLL	230.0	DVP	314287	6CHESTF B	230.0	DVP	1	DVP_P 1-2: LN 228	single	449.320007324	155.37	169.0	DC	62.04
168598775	314303	6HOPEWLL	230.0	DVP	314287	6CHESTF B	230.0	DVP	1	DVP_P 1-2: LN 240-D	single	449.320007324	120.16	128.63	DC	38.08
168598776	314303	6HOPEWLL	230.0	DVP	314287	6CHESTF B	230.0	DVP	1	Base Case	single	449.320007324	106.74	115.48	DC	39.93
168598961	314309	6IRON208	230.0	DVP	314338	6SOUWEST	230.0	DVP	1	DVP_P 1-2: LN 557	single	663.640014648	119.65	122.03	DC	15.77
163441125	314903	8CHCKAH M	500.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P 1-2: LN 563	single	2442.12011719	181.22	181.38	DC	38.11
163441126	314903	8CHCKAH M	500.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P 1-2: LN 576	single	2442.12011719	178.31	178.46	DC	40.44
163441134	314903	8CHCKAH M	500.0	DVP	314908	8ELMONT	500.0	DVP	1	Base Case	single	2442.12011719	142.18	142.47	DC	32.16
163440925	314908	8ELMONT	500.0	DVP	314911	8LADYSMIT H	500.0	DVP	1	DVP_P 4-2: 57602	break er	3351.0	164.12	164.14	DC	50.88
163440926	314908	8ELMONT	500.0	DVP	314911	8LADYSMIT H	500.0	DVP	1	DVP_P 4-2: WT576	break er	3351.0	164.12	164.13	DC	50.88
163441092	314908	8ELMONT	500.0	DVP	314911	8LADYSMIT H	500.0	DVP	1	DVP_P 1-2: LN 576	single	2442.12011719	218.57	218.73	DC	50.9
163441095	314908	8ELMONT	500.0	DVP	314911	8LADYSMIT H	500.0	DVP	1	DVP_P 1-2: LN 563	single	2442.12011719	195.03	195.09	DC	42.28
163441102	314908	8ELMONT	500.0	DVP	314911	8LADYSMIT H	500.0	DVP	1	Base Case	single	2442.12011719	148.65	149.31	DC	35.89
163441171	314911	8LADYSMIT H	500.0	DVP	314922	8POSSUM	500.0	DVP	1	DVP_P 1-2: LN 581	single	2442.12011719	145.72	146.19	DC	27.22
163441173	314911	8LADYSMIT H	500.0	DVP	314922	8POSSUM	500.0	DVP	1	DVP_P 1-2: LN 552	single	2442.12011719	143.63	144.08	DC	27.12
163441157	314914	8MDLTHA N	500.0	DVP	314918	8NO ANNA	500.0	DVP	1	DVP_P 1-2: LN 574	single	2442.12011719	173.32	173.5	DC	41.39
163441161	314914	8MDLTHA N	500.0	DVP	314918	8NO ANNA	500.0	DVP	1	DVP_P 1-2: LN 567	single	2442.12011719	134.22	134.65	DC	32.54
163441167	314914	8MDLTHA N	500.0	DVP	314918	8NO ANNA	500.0	DVP	1	Base Case	single	2442.12011719	123.77	123.98	DC	28.54
163441264	314918	8NO ANNA	500.0	DVP	314934	8SPOTSYL	500.0	DVP	1	DVP_P 1-2: LN 581	single	3218.56005859	130.55	130.59	DC	33.5
163441268	314918	8NO ANNA	500.0	DVP	314934	8SPOTSYL	500.0	DVP	1	DVP_P 1-2: LN 552	single	3218.56005859	127.44	127.49	DC	32.89

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 IMPAC T
163441206	314934	8SPOTSYL	500.0	DVP	314916	8MORRSVL	500.0	DVP	1	DVP_P 1-2: LN 552	single	3218.56005859	134.39	134.44	DC	32.82
163441207	314934	8SPOTSYL	500.0	DVP	314916	8MORRSVL	500.0	DVP	1	DVP_P 1-2: LN 581	single	3218.56005859	133.26	133.3	DC	32.31

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 PROJE T LOADIN G %	POST PROJE T LOADIN G %	AC D C	MW IMPAC T
168298453	313896	6COLONIAL TR	230.0	DVP	314303	6HOPEWLL	230.0	DVP	1	DVP_P 1-2: LN 240-A	operation	678.679992676	128.6	140.56	DC	80.86
168599057	314212	6FOUR RIVERS	230.0	DVP	314150	6STJOHN	230.0	DVP	1	DVP_P 1-2: LN 574	operation	1123.30004883	118.51	119.15	DC	16.1
168599102	314214	6CHCKAH M	230.0	DVP	314241	6OLDCHRC	230.0	DVP	1	DVP_P 1-2: LN 557	operation	984.179992676	120.23	120.38	DC	11.82
168599128	314214	6CHCKAH M	230.0	DVP	314903	8CHCKAH M	500.0	DVP	1	DVP_P 1-2: LN 567	operation	934.923950195	111.63	111.87	DC	20.78
168598845	314218	6ELMONT	230.0	DVP	314908	8ELMONT	500.0	DVP	2	DVP_P 1-2: LN 557	operation	879.840026855	167.32	167.5	DC	22.18
168598873	314218	6ELMONT	230.0	DVP	314908	8ELMONT	500.0	DVP	1	DVP_P 1-2: LN 557	operation	920.918029785	160.61	160.78	DC	22.28
168599000	314225	6CHARCTY	230.0	DVP	314227	6LAKESIDE	230.0	DVP	1	DVP_P 1-2: LN 563	operation	984.179992676	136.15	136.32	DC	15.97
168599098	314227	6LAKESIDE	230.0	DVP	314218	6ELMONT	230.0	DVP	1	DVP_P 1-2: LN 557	operation	740.719970703	120.47	120.75	DC	16.2
168598880	314236	6NRTHEST	230.0	DVP	314218	6ELMONT	230.0	DVP	1	DVP_P 1-2: LN 557	operation	678.679992676	156.07	156.18	DC	14.16
168599042	314241	6OLDCHRC	230.0	DVP	314242	6PEARSON	230.0	DVP	1	DVP_P 1-2: LN 557	operation	898.640014648	131.57	131.73	DC	11.79
168599076	314242	6PEARSON	230.0	DVP	314218	6ELMONT	230.0	DVP	1	DVP_P 1-2: LN 557	operation	898.640014648	125.73	125.89	DC	11.79
168598988	314260	6VARINA	230.0	DVP	314225	6CHARCTY	230.0	DVP	1	DVP_P 1-2: LN 563	operation	984.179992676	139.56	139.72	DC	15.97

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADIN G %	POST PROJECT LOADIN G %	AC/D C	MW IMPACT
168599137	314269	6PRGEORG	230.0	DVP	314291	3PRGEORG	115.0	DVP	1	DVP_P 1-2: LN 211	operation	190.537994385	103.55	106.68	DC	13.17
168599157	314286	6CHESTF A	230.0	DVP	314214	6CHCKAHM	230.0	DVP	1	DVP_P 1-2: LN 2049	operation	584.679992676	102.31	103.57	DC	16.27
168599171	314286	6CHESTF A	230.0	DVP	314309	6IRON208	230.0	DVP	1	DVP_P 1-2: LN 211	operation	663.640014648	97.22	100.23	DC	19.94
168598743	314287	6CHESTF B	230.0	DVP	314276	6BASIN	230.0	DVP	1	DVP_P 1-2: LN 563	operation	663.640014648	190.01	192.48	DC	16.35
168598747	314287	6CHESTF B	230.0	DVP	314276	6BASIN	230.0	DVP	1	Base Case	operation	663.640014648	106.47	107.42	DC	14.0
168598981	314287	6CHESTF B	230.0	DVP	314260	6VARINA	230.0	DVP	1	DVP_P 1-2: LN 563	operation	984.179992676	139.92	140.08	DC	15.97
168599186	314287	6CHESTF B	230.0	DVP	314303	6HOPEWLL	230.0	DVP	1	DVP_P 1-2: LN 217	operation	449.320007324	94.34	102.21	DC	35.35
168598737	314303	6HOPEWLL	230.0	DVP	314286	6CHESTF A	230.0	DVP	1	DVP_P 1-2: LN 211	operation	449.320007324	185.25	198.25	DC	59.74
168598740	314303	6HOPEWLL	230.0	DVP	314286	6CHESTF A	230.0	DVP	1	Base Case	operation	449.320007324	158.61	166.85	DC	37.87
168598771	314303	6HOPEWLL	230.0	DVP	314287	6CHESTF B	230.0	DVP	1	DVP_P 1-2: LN 228	operation	449.320007324	172.24	185.72	DC	62.04
168598774	314303	6HOPEWLL	230.0	DVP	314287	6CHESTF B	230.0	DVP	1	Base Case	operation	449.320007324	124.11	132.78	DC	39.93
168598960	314309	6IRON208	230.0	DVP	314338	6SOUWEST	230.0	DVP	1	DVP_P 1-2: LN 557	operation	663.640014648	139.94	141.02	DC	15.77
168599154	314311	6IRON282	230.0	DVP	314307	6HULL282	230.0	DVP	1	DVP_P 1-2: LN 563	operation	678.679992676	102.46	103.21	DC	11.22
168599129	314339	6SPRUNCE	230.0	DVP	314311	6IRON282	230.0	DVP	1	DVP_P 1-2: LN 563	operation	678.679992676	107.93	108.67	DC	11.22
168902978	314538	6SURRY	230.0	DVP	313896	6COLONIAL TR	230.0	DVP	1	DVP_P 1-2: LN 240-A	operation	678.679992676	96.15	107.82	DC	79.03
163441091	314908	8ELMONT	500.0	DVP	314911	8LADYSMITH	500.0	DVP	1	DVP_P 1-2: LN 576	operation	2442.12011719	225.06	225.07	DC	50.9
163441101	314908	8ELMONT	500.0	DVP	314911	8LADYSMITH	500.0	DVP	1	Base Case	operation	2442.12011719	166.83	166.88	DC	35.89
163441168	314911	8LADYSMITH	500.0	DVP	314922	8POSSUM	500.0	DVP	1	DVP_P 1-2: LN 581	operation	2442.12011719	158.23	158.28	DC	27.22
163441294	314927	8YADKIN	500.0	DVP	314928	8SUFFOLK	500.0	DVP	1	DVP_P 1-2: LN 579	operation	2442.12011719	125.89	126.34	DC	26.2
169518682	935160	AD1-151 TAP	230.0	DVP	314303	6HOPEWLL	230.0	DVP	2	DVP_P 1-2: LN 2197	operation	678.679992676	101.74	107.06	DC	36.12
169518749	942550	AE2-270 TAP	230.0	DVP	935160	AD1-151 TAP	230.0	DVP	2	DVP_P 1-2: LN 2197	operation	678.679992676	96.76	102.1	DC	36.12

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
163441173,163 441171	15	8LADYSMITH 500.0 kV - 8POSSUM 500.0 kV Ckt 1	<u>DVP</u> dom-183 (1360) : Build new 500 kV Line from Rawlings to Morrisville Substation 110 miles Project Type : CON Cost : \$400,000,000 Time Estimate : 60-72 Months	\$587,939,000
163441125,163 441134,163441 126	13	8CHCKAHM 500.0 kV - 8ELMONT 500.0 kV Ckt 1	n6063 (1380) : Replace Wave traps at Ladysmith and Possum Pt 500 kV substations. Project Type : FAC Cost : \$300,000 Time Estimate : 16-18 Months n6157 (1399) : Relay Change Outs (CT) at Ladysmith and Possum Pt 500 kV substations. Project Type : FAC Cost : \$120,000 Time Estimate : 6-12 Months	
163440926,163 441095,163440 925,163441102, 163441092	14	8ELMONT 500.0 kV - 8LADYSMITH 500.0 kV Ckt 1	n6207 (1418) : Rebuild 27.72 miles of 500 kV Line 557 from Chickahominy to Elmont with 3-1351.5 113C ACSR. Project Type : FAC Cost : \$85,932,000 Time Estimate : 48-60 Months	
163441268,163 441264	17	8NO ANNA 500.0 kV - 8SPOTSYL 500.0 kV Ckt 1	b3020 (1162) : PJM baseline upgrade b3020: Rebuild 500kV Line #574 Ladysmith to Elmont - 26.2 miles long. The baseline project has an projected in-service date of 12/31/2022. Project Type : FAC Cost : \$0 Time Estimate : N/A Months n6132 (1389) : Rebuild 14.02 miles of 500 kV Line 573 from North Anna to Spotsylvania with 3-1351.5 113C ACSR. Project Type : FAC Cost : \$43,462,000 Time Estimate : 48-60 Months	
163441206,163 441207	18	8SPOTSYL 500.0 kV - 8MORRSVL 500.0 kV Ckt 1	n6160 (1402) : Rebuild 18.75 miles of 500 kV Line 594 from Spotsylvania to Morrisville with 3-1351.5 113C ACSR. Project Type : FAC Cost : \$58,125,000 Time Estimate : 48-60 Months	
168598982	9	6CHESTF B 230.0 kV - 6VARINA 230.0 kV Ckt 1	<u>DVP</u> dom-300 (1526) : Rebuild 9.46 miles of 230 kV Line 217 from Chesterfield to Varina with 2-768.2 ACSS 250 C Project Type : FAC Cost : \$14,190,000 Time Estimate : 36-40 Months	\$14,190,000

ID	Idx	Facility	Upgrade Description	Cost
168598776,168598775,168598772,163066695	11	6HOPEWLL 230.0 kV - 6CHESTF B 230.0 kV Ckt 1	<u>DVP</u> b2922 (1158) : PJM Baseline Upgrade b2922. Rebuild 8 of 11 miles of 230kV Lines #211 and #228 to current standard with a summer emergency rating of 1046 MVA for rebuilt section. Proposed conductor is 2-636 ACSR. The baseline project has an projected in-service date of 12/01/2020. Project Type : FAC Cost : \$0 Time Estimate : N/A Months	\$7,500,000
163066625,163066626,168598739,168598742,168598741,163066350	10	6HOPEWLL 230.0 kV - 6CHESTF A 230.0 kV Ckt 1	n6155 (1397) : Rebuild 3 miles of 230 kV Line 211 from Hopewell to Chesterfield with 2-636 ACSR. Project Type : FAC Cost : \$7,500,000 Time Estimate : 30-36 Months	
168599058	2	6FOUR RIVERS 230.0 kV - 6STJOHN 230.0 kV Ckt 1	<u>DVP</u> dom-209 (1435) : Rebuild 14.7 miles of 230 kV Line 256 from Four Rivers to Elmont with 2-768 ACS (250 C). Replace Breaker, Wave trap, Relay (CT) at Four River 230 kV and replace Line Switch and Line Lead at St Johns 230 kV. Project Type : FAC Cost : \$23,820,000 Time Estimate : 36-40 Months	\$23,820,000
168599001	5	6CHARCTY 230.0 kV - 6LAKESIDE 230.0 kV Ckt 1	<u>DVP</u> dom-150 (1328) : Rebuild 10.36 miles of 230 kV Line 217 from Charles City to Lakeside with 2-795 ACSR Project Type : FAC Cost : \$15,860,000 Time Estimate : 30-36 Months	\$15,860,000
168599159	1	6CHESTF A 230.0 kV - 6CHCKAHM 230.0 kV Ckt 1	<u>DVP</u> dom-299 (1525) : Rebuild 13.78 miles of 230 kV Line 287 from Chesterfield to Chickahominy with 2-636 ACSR 150C. Project Type : FAC Cost : \$34,450,000 Time Estimate : 36-40 Months	\$34,450,000

ID	Idx	Facility	Upgrade Description	Cost
163441167,163 441157,163441 161	16	8MDLTHAN 500.0 kV - 8NO ANNA 500.0 kV Ckt 1	<u>DVP</u> n5609 (1374) : Rebuild 41.13 miles of 500 kV Line 576 from Midlothian to North Anna with 3-1351.5 125C ACSR. Project Type : FAC Cost : \$127,503,000 Time Estimate : 48-60 Months n6055 (1379) : Replace Wave traps at Midlothian and North Anna 500kV substations Project Type : FAC Cost : \$300,000 Time Estimate : 16-18 Months	\$127,803,000
168598961	12	6IRON208 230.0 kV - 6SOUWEST 230.0 kV Ckt 1	<u>DVP</u> dom-164 (1342) : Rebuild 7.0 miles of 230 kV Line 208 from Iron Bridge to Southwest with 2-636 ACSR Project Type : FAC Cost : \$17,500,000 Time Estimate : 30-36 Months	\$17,500,000
168598746,168 598745	8	6CHESTF B 230.0 kV - 6BASIN 230.0 kV Ckt 1	<u>DVP</u> n6130 (1387) : Rebuild 12.4 miles of 230 kV Line 259 from Chesterfield to Basin with 2-636 ACSR. Project Type : FAC Cost : \$31,000,000 Time Estimate : 30-36 Months dom-301 (1527) : Rebuild 12.4 miles of 230 kV Line 259 from Chesterfield to Basin with 2-795 ACSR 150 C. Replace Breaker Switch and Wave Trap at Basin terminal Project Type : FAC Cost : \$31,450,000 Time Estimate : 36-40 Months	\$62,450,000
168598874	4	6ELMONT 230.0 kV - 8ELMONT 500.0 kV Ckt 1	<u>DVP</u> n6127 (1386) : Add additional 500/230 kV transformer at Elmont Substation Project Type : CON Cost : \$22,000,000 Time Estimate : 16-18 Months	\$22,000,000
168598846	3	6ELMONT 230.0 kV - 8ELMONT 500.0 kV Ckt 2		
168598881	6	6NRTHEST 230.0 kV - 6ELMONT 230.0 kV Ckt 1	<u>DVP</u> dom-156 (1333) : Rebuild 12.98 miles of 230 kV Line 283 from Elmont to Northeast with 2-636 ACSR Project Type : FAC Cost : \$19,470,000 Time Estimate : 30-36 Months	\$19,470,000

ID	Idx	Facility	Upgrade Description	Cost
168598989	7	6VARINA 230.0 kV - 6CHARCTY 230.0 kV Ckt 1	<u>DVP</u> dom-294 (1520) : Rebuild 1.38 mi miles of 230 kV Line 217 from Varina to Charles City with 2-768.2 ACSS 250 C Project Type : FAC Cost : \$2,070,000 Time Estimate : 30-36 Months	\$2,070,000
			TOTAL COST	\$935,052,000

11.6 Flow Gate Details

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
168599159	314286	6CHESTF A	DVP	314214	6CHCKAHM	DVP	1	DVP_P1-2: LN 2049	single	584.68	97.43	100.15	DC	16.27

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314309	6IRON208	0.5395	80/20	0.5395
314314	3LOCKS	0.1363	80/20	0.1363
315058	1CHESTF3 (Deactivation : 13/12/2018)	12.1570	80/20	12.1570
315059	1CHESTF4 (Deactivation : 13/12/2018)	19.7065	80/20	19.7065
315060	1CHESTF5 (Deactivation : 31/05/2023)	113.5680	80/20	113.5680
315061	1CHESTG7	6.6909	80/20	6.6909
315062	1CHESTS7	3.0716	80/20	3.0716
315063	1CHESTG8	6.5834	80/20	6.5834
315064	1CHESTS8	3.3890	80/20	3.3890
315065	1CHESTF6 (Deactivation : 31/05/2023)	54.3565	80/20	54.3565
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0163	80/20	0.0163
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0163	80/20	0.0163
315076	1HOPPOLC	1.3690	80/20	1.3690
315077	1HOPHCF1	2.1398	80/20	2.1398
315078	1HOPHCF2	2.1398	80/20	2.1398
315079	1HOPHCF3	2.1398	80/20	2.1398
315080	1HOPHCF4	3.2484	80/20	3.2484
315116	1SURRY 1	6.8465	80/20	6.8465
315120	1GRAVEL4	0.7044	80/20	0.7044
315121	1GRAVEL5	0.6955	80/20	0.6955
315122	1GRAVEL6	0.7036	80/20	0.7036
316033	AB2-134 C	1.1520	80/20	1.1520
316083	AB2-161 C (Suspended)	1.1748	80/20	1.1748
316108	AB2-160 C (Suspended)	2.6260	80/20	2.6260
316132	AB2-190 C	12.8106	80/20	12.8106
925863	AC1-065 C	-3.0105	Adder	-3.54
926784	AC1-164 C	-29.8599	Adder	-35.13
927225	AC1-216 C	0.8794	80/20	0.8794
932581	AC2-078 C O1	1.4435	80/20	1.4435
934014	AD1-025 C	9.5801	80/20	9.5801
934141	AD1-041 C	-2.1803	Adder	-2.57
934575	AD1-082 C	2.6772	80/20	2.6772
935164	AD1-151 C	10.2942	80/20	10.2942
936041	AD2-007 C	0.4577	80/20	0.4577
936051	AD2-008 C	1.6679	80/20	1.6679
938551	AE1-074 C	0.1717	80/20	0.1717

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
938634	AE1-085 C	3.2285	80/20	3.2285
939195	AE1-149 C	4.2528	80/20	4.2528
939431	AE1-175 C	-0.9085	Adder	-1.07
940061	AE2-000BC O1	3.5604	80/20	3.5604
940231	AE2-005 C	-0.5474	Adder	-0.64
940431	AE2-027 C O1	7.2130	80/20	7.2130
940651	AE2-052	1.4176	80/20	1.4176
942001	AE2-212 C	0.8710	80/20	0.8710
942151	AE2-227 C	2.7540	80/20	2.7540
942161	AE2-228 C	0.9384	80/20	0.9384
942371	AE2-250 C O1	4.6645	80/20	4.6645
942551	AE2-270	16.1070	80/20	16.1070
944631	AF1-128 O1	99.5829	80/20	99.5829
944641	AF1-129	45.6110	80/20	45.6110
946261	AF1-291 C	0.9376	80/20	0.9376
957711	AF2-065 C	8.2146	80/20	8.2146
958141	AF2-108	0.6620	80/20	0.6620
959641	AF2-255 C	0.6885	80/20	0.6885
959651	AF2-256 C	0.2346	80/20	0.2346
959661	AF2-257 C	0.2344	80/20	0.2344
959671	AF2-258 C	0.2177	80/20	0.2177
959681	AF2-259 C	0.9930	80/20	0.9930
961611	AG1-000B C	5.5652	80/20	5.5652
961711	AG1-011	16.2720	80/20	16.2720
962191	AG1-064 C	1.0841	80/20	1.0841
962201	AG1-065 C	1.0841	80/20	1.0841
962271	AG1-075 C O1	8.0506	80/20	8.0506
963221	AG1-171 C	1.3726	80/20	1.3726
963231	AG1-172 C	1.3726	80/20	1.3726
963241	AG1-173 C	1.3726	80/20	1.3726
963251	AG1-174 C	1.3726	80/20	1.3726
963261	AG1-175 C	1.3726	80/20	1.3726
966731	AG1-544 C	2.5215	80/20	2.5215
966741	AG1-545 C	0.8329	80/20	0.8329
WEC	WEC	0.0066	Confirmed LTF	0.0066
LGEE	LGEE	0.0163	Confirmed LTF	0.0163
CPL	CPL	0.4450	Confirmed LTF	0.4450
CBM-W2	CBM-W2	0.9677	Confirmed LTF	0.9677
NY	NY	0.1493	Confirmed LTF	0.1493
TVA	TVA	0.2226	Confirmed LTF	0.2226
SIGE	SIGE	0.0344	Confirmed LTF	0.0344
CBM-S2	CBM-S2	4.8650	Confirmed LTF	4.8650
CBM-S1	CBM-S1	0.0513	Confirmed LTF	0.0513
MEC	MEC	0.0810	Confirmed LTF	0.0810
LAGN	LAGN	0.2747	Confirmed LTF	0.2747
CBM-W1	CBM-W1	0.1542	Confirmed LTF	0.1542

11.6.2 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
168599058	314212	6FOUR RIVERS	DVP	314150	6STJOHN	DVP	1	DVP_P1-2: LN 574	single	1123.3	108.58	108.94	DC	16.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.1002	80/20	0.1002
314236	6NRTHEST	0.1314	80/20	0.1314
314241	6OLDCHRC	0.6170	80/20	0.6170
314250	6ROCKVILLE	0.2238	80/20	0.2238
314309	6IRON208	0.2847	80/20	0.2847
315043	1FOUR RIVERA	5.4895	80/20	5.4895
315044	1FOUR RIVERB	5.4895	80/20	5.4895
315045	1FOUR RIVERC	6.7094	80/20	6.7094
315046	1FOUR RIVERD	5.4895	80/20	5.4895
315047	1FOUR RIVERE	5.4895	80/20	5.4895
315048	1FOUR RIVERF	6.7094	80/20	6.7094
315051	1AA1-145 CT1	8.6409	80/20	8.6409
315052	1AA1-145 CT2	8.6409	80/20	8.6409
315058	1CHESTF3 (Deactivation : 13/12/2018)	11.9150	80/20	11.9150
315059	1CHESTF4 (Deactivation : 13/12/2018)	19.3142	80/20	19.3142
315060	1CHESTF5 (Deactivation : 31/05/2023)	40.3830	80/20	40.3830
315061	1CHESTG7	2.3792	80/20	2.3792
315062	1CHESTS7	1.0922	80/20	1.0922
315063	1CHESTG8	2.3410	80/20	2.3410
315064	1CHESTS8	1.2051	80/20	1.2051
315065	1CHESTF6 (Deactivation : 31/05/2023)	77.4797	80/20	77.4797
315067	1DARBY 1	1.7718	80/20	1.7718
315068	1DARBY 2	1.7739	80/20	1.7739
315069	1DARBY 3	1.7801	80/20	1.7801
315070	1DARBY 4	1.7822	80/20	1.7822
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0093	Adder	0.01
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0093	Adder	0.01
315083	1SPRUNCA (Deactivation : 12/01/2021)	5.6089	Adder	6.6
315084	1SPRUNCB (Deactivation : 12/01/2021)	5.6089	Adder	6.6
316075	AC2-137 C	0.2161	80/20	0.2161
316108	AB2-160 C (Suspended)	2.7251	Adder	3.21
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	26.1919	Adder	30.81

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	26.1919	Adder	30.81
316114	AB2-068 ST (Withdrawn : 01/11/2021)	45.3747	Adder	53.38
316132	AB2-190 C	9.7542	Adder	11.48
316134	AC1-107 G1	49.1836	Adder	57.86
316135	AC1-107 G2	49.1836	Adder	57.86
316136	AC1-107 G3	49.1928	Adder	57.87
926784	AC1-164 C	21.2623	Adder	25.01
927044	AC1-191 C	7.5737	80/20	7.5737
932501	AC2-070 C	0.2027	80/20	0.2027
934014	AD1-025 C	8.0582	Adder	9.48
935164	AD1-151 C	7.8382	Adder	9.22
936041	AD2-007 C	0.3849	Adder	0.45
936051	AD2-008 C	1.4029	Adder	1.65
936151	AD2-021	0.0246	80/20	0.0246
936761	AD2-097 C	1.0637	Adder	1.25
939195	AE1-149 C	4.9638	Adder	5.84
939431	AE1-175 C	1.1194	Adder	1.32
939755	AE1-206 C	48.0613	80/20	48.0613
940431	AE2-027 C O1	6.7828	Adder	7.98
940651	AE2-052	1.6546	Adder	1.95
941581	AE2-155 C	0.0771	80/20	0.0771
942001	AE2-212 C	1.0899	Adder	1.28
942151	AE2-227 C	1.4536	80/20	1.4536
942161	AE2-228 C	1.1460	Adder	1.35
942371	AE2-250 C O1	4.8406	Adder	5.69
942551	AE2-270	12.9362	Adder	15.22
944631	AF1-128 O1	35.4101	80/20	35.4101
944641	AF1-129	55.2619	Adder	65.01
946001	AF1-265	42.1590	80/20	42.1590
946261	AF1-291 C	1.1466	Adder	1.35
957711	AF2-065 C	6.5974	Adder	7.76
958141	AF2-108	0.8552	Adder	1.01
959641	AF2-255 C	0.3634	80/20	0.3634
959651	AF2-256 C	0.2865	Adder	0.34
959661	AF2-257 C	0.2866	Adder	0.34
959671	AF2-258 C	0.2725	Adder	0.32
959681	AF2-259 C	1.2828	Adder	1.51
961711	AG1-011	7.2541	Adder	16.1
962191	AG1-064 C	1.0102	80/20	1.0102
962201	AG1-065 C	1.0102	80/20	1.0102
962271	AG1-075 C O1	4.4279	Adder	9.83
962961	AG1-145 C	0.5353	Adder	1.19
963221	AG1-171 C	0.5539	Adder	1.23
963231	AG1-172 C	0.5539	Adder	1.23
963241	AG1-173 C	0.5539	Adder	1.23
963251	AG1-174 C	0.5539	Adder	1.23
963261	AG1-175 C	0.5539	Adder	1.23
966871	AG1-558 C	1.7020	80/20	1.7020
WEC	WEC	0.4070	Confirmed LTF	0.4070
LGEE	LGEE	0.8652	Confirmed LTF	0.8652
CPL	CPL	3.0371	Confirmed LTF	3.0371

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-W2	CBM-W2	16.3878	Confirmed LTF	16.3878
NY	NY	1.1032	Confirmed LTF	1.1032
TVA	TVA	3.0226	Confirmed LTF	3.0226
SIGE	SIGE	0.3923	Confirmed LTF	0.3923
CBM-S2	CBM-S2	38.4088	Confirmed LTF	38.4088
CBM-S1	CBM-S1	0.7665	Confirmed LTF	0.7665
MEC	MEC	2.3517	Confirmed LTF	2.3517
LAGN	LAGN	3.7065	Confirmed LTF	3.7065
AA2-074	AA2-074	2.0075	LTF	2.0075
CBM-W1	CBM-W1	16.9081	Confirmed LTF	16.9081

11.6.3 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
168598846	314218	6ELMONT	DVP	314908	8ELMONT	DVP	2	DVP_P1-2: LN 557	single	879.84	148.56	149.54	DC	22.18

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.1393	80/20	0.1393
314236	6NRTHEST	0.1832	80/20	0.1832
314241	6OLDCHRC	0.8548	80/20	0.8548
314250	6ROCKVILLE	0.3145	80/20	0.3145
314309	6IRON208	0.3968	80/20	0.3968
315043	1FOUR RIVERA	3.0873	80/20	3.0873
315044	1FOUR RIVERB	3.0873	80/20	3.0873
315045	1FOUR RIVERC	3.7734	80/20	3.7734
315046	1FOUR RIVERD	3.0873	80/20	3.0873
315047	1FOUR RIVERE	3.0873	80/20	3.0873
315048	1FOUR RIVERF	3.7734	80/20	3.7734
315050	1FOURRIVERG	4.6210	80/20	4.6210
315051	1AA1-145 CT1	4.8597	80/20	4.8597
315052	1AA1-145 CT2	4.8597	80/20	4.8597
315058	1CHESTF3 (Deactivation : 13/12/2018)	16.7010	80/20	16.7010
315059	1CHESTF4 (Deactivation : 13/12/2018)	27.0723	80/20	27.0723
315060	1CHESTF5 (Deactivation : 31/05/2023)	56.0665	80/20	56.0665
315061	1CHESTG7	3.3032	80/20	3.3032
315062	1CHESTS7	1.5164	80/20	1.5164
315063	1CHESTG8	3.2501	80/20	3.2501
315064	1CHESTS8	1.6731	80/20	1.6731
315065	1CHESTF6 (Deactivation : 31/05/2023)	91.6222	Adder	107.79
315067	1DARBY 1	2.4661	80/20	2.4661
315068	1DARBY 2	2.4690	80/20	2.4690
315069	1DARBY 3	2.4776	80/20	2.4776
315070	1DARBY 4	2.4805	80/20	2.4805
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0129	Adder	0.02
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0129	Adder	0.02
315083	1SPRUNCA (Deactivation : 12/01/2021)	7.8772	Adder	9.27
315084	1SPRUNCB (Deactivation : 12/01/2021)	7.8772	Adder	9.27
316075	AC2-137 C	0.2994	80/20	0.2994
316083	AB2-161 C (Suspended)	2.1134	Adder	2.49
316103	AB2-015 C	4.3635	Adder	5.13
316108	AB2-160 C (Suspended)	3.7946	Adder	4.46

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	31.7658	Adder	37.37
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	31.7658	Adder	37.37
316114	AB2-068 ST (Withdrawn : 01/11/2021)	55.0309	Adder	64.74
316132	AB2-190 C	13.4527	Adder	15.83
316134	AC1-107 G1	59.6504	Adder	70.18
316135	AC1-107 G2	59.6504	Adder	70.18
316136	AC1-107 G3	59.6616	Adder	70.19
925863	AC1-065 C	4.9550	Adder	5.83
926754	AC1-161 C	15.6838	Adder	18.45
926784	AC1-164 C	29.3625	Adder	34.54
927044	AC1-191 C	11.0570	80/20	11.0570
932044	AC2-012 C	5.4501	Adder	6.41
932501	AC2-070 C	0.2809	80/20	0.2809
932581	AC2-078 C O1	2.5477	Adder	3.0
932591	AC2-079 C O1	3.3547	Adder	3.95
933294	AC2-141 C	15.6838	Adder	18.45
933991	AD1-023 C	6.3205	Adder	7.44
934014	AD1-025 C	11.0985	Adder	13.06
934061	AD1-033 C	3.9598	Adder	4.66
934141	AD1-041 C	3.5032	Adder	4.12
934521	AD1-076 C	26.3163	Adder	30.96
934575	AD1-082 C	4.8163	Adder	5.67
934781	AD1-105 C	7.4723	80/20	7.4723
935164	AD1-151 C	10.8102	Adder	12.72
936041	AD2-007 C	0.5302	Adder	0.62
936051	AD2-008 C	1.9322	Adder	2.27
936151	AD2-021	0.0341	80/20	0.0341
936581	AD2-073 C	1.1747	Adder	1.38
936591	AD2-074 C	3.3545	Adder	3.95
936661	AD2-085 C	1.9427	Adder	2.29
936761	AD2-097 C	1.4939	Adder	1.76
937221	AD2-160 C O1	3.0701	Adder	3.61
938535	AE1-072 C	9.2178	Adder	10.84
938634	AE1-085 C	5.6087	Adder	6.6
938771	AE1-103 C	1.8803	Adder	2.21
939195	AE1-149 C	6.8610	Adder	8.07
939245	AE1-155 C	7.6706	Adder	9.02
939414	AE1-173_C1	14.0087	Adder	16.48
939415	AE1-173_C2	12.0074	Adder	14.13
939416	AE1-173_C3	14.0087	Adder	16.48
939431	AE1-175 C	1.5371	Adder	1.81
939611	AE1-191 C	7.0064	Adder	8.24
939755	AE1-206 C	33.2373	80/20	33.2373
940061	AE2-000BC O1	6.6229	Adder	7.79
940231	AE2-005 C	0.9009	Adder	1.06
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	92.3294	Adder	108.62
940431	AE2-027 C O1	9.4713	Adder	11.14
940481	AE2-033 C	8.3782	Adder	9.86
940491	AE2-034 C	3.5500	Adder	4.18

Bus #	Bus	Gendoliv MW Impact	Type	Full MW Impact
940541	AE2-040	1.4982	Adder	1.76
940551	AE2-041	4.7631	Adder	5.6
940651	AE2-052	2.2870	Adder	2.69
940891	AE2-078 C	1.4322	Adder	1.68
940901	AE2-079 C	1.4322	Adder	1.68
941101	AE2-104 C O1	1.8038	Adder	2.12
941281	AE2-122 C O1	15.0624	Adder	17.72
941291	AE2-123 C O1	15.4795	Adder	18.21
941301	AE2-124 C O1	14.0640	Adder	16.55
941501	AE2-147 C	8.1916	Adder	9.64
941581	AE2-155 C	0.1069	80/20	0.1069
941591	AE2-156 O1	9.5557	Adder	11.24
942001	AE2-212 C	1.5155	Adder	1.78
942131	AE2-225 C	1.1264	Adder	1.33
942151	AE2-227 C	2.0256	80/20	2.0256
942161	AE2-228 C	1.5941	Adder	1.88
942171	AE2-229 C	0.8448	Adder	0.99
942191	AE2-231 C O1	2.2128	Adder	2.6
942341	AE2-247 C	0.8426	Adder	0.99
942371	AE2-250 C O1	6.7404	Adder	7.93
942401	AE2-253 C	3.2293	Adder	3.8
942471	AE2-260 C O1	7.1645	Adder	8.43
942551	AE2-270	17.8270	Adder	20.97
943431	AF1-014 C	0.8535	Adder	1.0
943461	AF1-017 C	0.7623	Adder	0.9
943471	AF1-018	4.7631	Adder	5.6
943601	AF1-031 C	9.9823	80/20	9.9823
943611	AF1-032 C	0.9199	Adder	1.08
943621	AF1-033 C	1.4322	Adder	1.68
943741	AF1-042 C	1.7552	Adder	2.06
943991	AF1-067 C	4.9344	80/20	4.9344
944581	AF1-123 C O1	25.0863	Adder	29.51
944591	AF1-124 C O1	25.0863	Adder	29.51
944601	AF1-125 C O1	25.0863	Adder	29.51
944631	AF1-128 O1	49.1623	80/20	49.1623
944641	AF1-129	76.8810	Adder	90.45
944871	AF1-152 C	2.7305	Adder	3.21
945361	AF1-201 C O1	9.8494	Adder	11.59
945711	AF1-236 C O1	38.8641	Adder	45.72
946001	AF1-265	29.1555	80/20	29.1555
946011	AF1-266	7.0132	Adder	8.25
946261	AF1-291 C	1.5947	Adder	1.88
957411	AF2-035 C	4.0233	Adder	4.73
957491	AF2-043 C	1.1264	Adder	1.33
957531	AF2-047 C	8.4355	Adder	9.92
957601	AF2-054 C	1.3669	Adder	1.61
957631	AF2-057	1.9123	Adder	2.25
957711	AF2-065 C	9.0918	Adder	10.7
957821	AF2-076 C	2.7764	Adder	3.27
957831	AF2-077 C	1.3275	Adder	1.56
957871	AF2-081 C	5.2284	Adder	6.15
957911	AF2-085	2.0584	Adder	2.42

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958141	AF2-108	1.1888	Adder	1.4
958161	AF2-110 C	0.7436	Adder	0.87
958261	AF2-120 C	3.7568	Adder	4.42
959641	AF2-255 C	0.5064	80/20	0.5064
959651	AF2-256 C	0.3985	Adder	0.47
959661	AF2-257 C	0.3987	Adder	0.47
959671	AF2-258 C	0.3789	Adder	0.45
959681	AF2-259 C	1.7832	Adder	2.1
960091	AF2-300 C	1.0058	Adder	1.18
961091	AF2-400 C	0.2356	Adder	0.28
961611	AG1-000B C	5.2231	Adder	11.59
961711	AG1-011	9.9910	Adder	22.18
961851	AG1-027 C	4.7644	Adder	10.58
961951	AG1-038 C	1.0282	Adder	2.28
962131	AG1-057	1.2622	Adder	2.8
962191	AG1-064 C	1.4123	80/20	1.4123
962201	AG1-065 C	1.4123	80/20	1.4123
962271	AG1-075 C O1	6.1657	Adder	13.69
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.6901	Adder	1.53
962531	AG1-102 C	0.3612	Adder	0.8
962851	AG1-134 C	9.8688	80/20	9.8688
962861	AG1-135 C	1.9402	Adder	4.31
962961	AG1-145 C	0.7351	Adder	1.63
962971	AG1-146 C	1.0114	Adder	2.25
962981	AG1-147 C	2.3598	Adder	5.24
963221	AG1-171 C	0.7639	Adder	1.7
963231	AG1-172 C	0.7639	Adder	1.7
963241	AG1-173 C	0.7639	Adder	1.7
963251	AG1-174 C	0.7639	Adder	1.7
963261	AG1-175 C	0.7639	Adder	1.7
963291	AG1-178 C O1	8.9012	Adder	19.76
963341	AG1-183 C	1.5779	Adder	3.5
963351	AG1-184 O1	7.5174	Adder	16.69
963381	AG1-187	0.6433	Adder	1.43
963611	AG1-210 C	0.2021	Adder	0.45
963621	AG1-213 C	0.1777	Adder	0.39
963821	AG1-235 C O1	6.7197	Adder	14.92
964021	AG1-256 C	0.3910	Adder	0.87
964211	AG1-282 C	0.6321	Adder	1.4
964801	AG1-343 C	1.5171	Adder	3.37
964951	AG1-359 O1	7.4887	Adder	16.62
965001	AG1-364 C O1	2.0260	Adder	4.5
965181	AG1-383 C	0.7686	Adder	1.71
965231	AG1-388 C	0.6321	Adder	1.4
965291	AG1-394 C	0.5215	Adder	1.16
965631	AG1-431	11.9252	Adder	26.47
966491	AG1-518 O1	2.4874	Adder	5.52
966611	AG1-531 C	2.0603	Adder	4.57
966661	AG1-536 C	1.7118	Adder	3.8
966711	AG1-541 C	1.4216	Adder	3.16
966731	AG1-544 C	2.3216	Adder	5.15

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966741	AG1-545 C	0.7727	Adder	1.72
966871	AG1-558 C	2.4847	80/20	2.4847
966881	AG1-559 C	0.5331	Adder	1.18
966931	AG1-431A	8.9595	Adder	19.89
WEC	WEC	0.0702	Confirmed LTF	0.0702
LGEE	LGEE	0.1502	Confirmed LTF	0.1502
CPLE	CPLE	3.2692	Confirmed LTF	3.2692
CBM-W2	CBM-W2	7.4816	Confirmed LTF	7.4816
NY	NY	0.7001	Confirmed LTF	0.7001
TVA	TVA	1.6660	Confirmed LTF	1.6660
SIGE	SIGE	0.1751	Confirmed LTF	0.1751
CBM-S2	CBM-S2	35.9554	Confirmed LTF	35.9554
CBM-S1	CBM-S1	0.3865	Confirmed LTF	0.3865
MEC	MEC	0.6896	Confirmed LTF	0.6896
LAGN	LAGN	2.0825	Confirmed LTF	2.0825
AA2-074	AA2-074	2.1551	LTF	2.1551
CBM-W1	CBM-W1	2.3133	Confirmed LTF	2.3133

11.6.4 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
168598874	314218	6ELMONT	DVP	314908	8ELMONT	DVP	1	DVP_P1-2: LN 557	single	920.92	142.59	143.54	DC	22.28

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.1400	80/20	0.1400
314236	6NRTHEST	0.1840	80/20	0.1840
314241	6OLDCHRC	0.8588	80/20	0.8588
314250	6ROCKVILLE	0.3160	80/20	0.3160
314309	6IRON208	0.3986	80/20	0.3986
315043	1FOUR RIVERA	3.1016	80/20	3.1016
315044	1FOUR RIVERB	3.1016	80/20	3.1016
315045	1FOUR RIVERC	3.7909	80/20	3.7909
315046	1FOUR RIVERD	3.1016	80/20	3.1016
315047	1FOUR RIVERE	3.1016	80/20	3.1016
315048	1FOUR RIVERF	3.7909	80/20	3.7909
315050	1FOURRIVERG	4.6424	80/20	4.6424
315051	1AA1-145 CT1	4.8822	80/20	4.8822
315052	1AA1-145 CT2	4.8822	80/20	4.8822
315058	1CHESTF3 (Deactivation : 13/12/2018)	16.7790	80/20	16.7790
315059	1CHESTF4 (Deactivation : 13/12/2018)	27.1988	80/20	27.1988
315060	1CHESTF5 (Deactivation : 31/05/2023)	56.3255	80/20	56.3255
315061	1CHESTG7	3.3185	80/20	3.3185
315062	1CHESTS7	1.5234	80/20	1.5234
315063	1CHESTG8	3.2651	80/20	3.2651
315064	1CHESTS8	1.6808	80/20	1.6808
315065	1CHESTF6 (Deactivation : 31/05/2023)	92.0429	Adder	108.29
315067	1DARBY 1	2.4776	80/20	2.4776
315068	1DARBY 2	2.4805	80/20	2.4805
315069	1DARBY 3	2.4892	80/20	2.4892
315070	1DARBY 4	2.4921	80/20	2.4921
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0130	Adder	0.02
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0130	Adder	0.02
315083	1SPRUNCA (Deactivation : 12/01/2021)	7.9136	Adder	9.31
315084	1SPRUNCB (Deactivation : 12/01/2021)	7.9136	Adder	9.31
316075	AC2-137 C	0.3008	80/20	0.3008
316083	AB2-161 C (Suspended)	2.1232	Adder	2.5
316103	AB2-015 C	4.3839	Adder	5.16
316108	AB2-160 C (Suspended)	3.8122	Adder	4.48

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	31.9131	Adder	37.54
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	31.9131	Adder	37.54
316114	AB2-068 ST (Withdrawn : 01/11/2021)	55.2860	Adder	65.04
316132	AB2-190 C	13.5146	Adder	15.9
316134	AC1-107 G1	59.9269	Adder	70.5
316135	AC1-107 G2	59.9269	Adder	70.5
316136	AC1-107 G3	59.9382	Adder	70.52
925863	AC1-065 C	4.9781	Adder	5.86
926754	AC1-161 C	15.7567	Adder	18.54
926784	AC1-164 C	29.4977	Adder	34.7
927044	AC1-191 C	11.1083	80/20	11.1083
932044	AC2-012 C	5.4753	Adder	6.44
932501	AC2-070 C	0.2822	80/20	0.2822
932581	AC2-078 C O1	2.5595	Adder	3.01
932591	AC2-079 C O1	3.3704	Adder	3.97
933294	AC2-141 C	15.7567	Adder	18.54
933991	AD1-023 C	6.3502	Adder	7.47
934014	AD1-025 C	11.1497	Adder	13.12
934061	AD1-033 C	3.9781	Adder	4.68
934141	AD1-041 C	3.5195	Adder	4.14
934521	AD1-076 C	26.4390	Adder	31.1
934575	AD1-082 C	4.8388	Adder	5.69
934781	AD1-105 C	7.5069	80/20	7.5069
935164	AD1-151 C	10.8599	Adder	12.78
936041	AD2-007 C	0.5326	Adder	0.63
936051	AD2-008 C	1.9411	Adder	2.28
936151	AD2-021	0.0343	80/20	0.0343
936581	AD2-073 C	1.1801	Adder	1.39
936591	AD2-074 C	3.3700	Adder	3.96
936661	AD2-085 C	1.9517	Adder	2.3
936761	AD2-097 C	1.5009	Adder	1.77
937221	AD2-160 C O1	3.0844	Adder	3.63
938535	AE1-072 C	9.2607	Adder	10.89
938634	AE1-085 C	5.6346	Adder	6.63
938771	AE1-103 C	1.8889	Adder	2.22
939195	AE1-149 C	6.8932	Adder	8.11
939245	AE1-155 C	7.7061	Adder	9.07
939414	AE1-173_C1	14.0744	Adder	16.56
939415	AE1-173_C2	12.0637	Adder	14.19
939416	AE1-173_C3	14.0744	Adder	16.56
939431	AE1-175 C	1.5443	Adder	1.82
939611	AE1-191 C	7.0390	Adder	8.28
939755	AE1-206 C	33.3912	80/20	33.3912
940061	AE2-000BC O1	6.6535	Adder	7.83
940231	AE2-005 C	0.9051	Adder	1.06
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	92.7570	Adder	109.13
940431	AE2-027 C O1	9.5148	Adder	11.19
940481	AE2-033 C	8.4168	Adder	9.9
940491	AE2-034 C	3.5664	Adder	4.2

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940541	AE2-040	1.5052	Adder	1.77
940551	AE2-041	4.7852	Adder	5.63
940651	AE2-052	2.2977	Adder	2.7
940891	AE2-078 C	1.4390	Adder	1.69
940901	AE2-079 C	1.4390	Adder	1.69
941101	AE2-104 C O1	1.8121	Adder	2.13
941281	AE2-122 C O1	15.1327	Adder	17.8
941291	AE2-123 C O1	15.5517	Adder	18.3
941301	AE2-124 C O1	14.1296	Adder	16.62
941501	AE2-147 C	8.2299	Adder	9.68
941581	AE2-155 C	0.1074	80/20	0.1074
941591	AE2-156 O1	9.5999	Adder	11.29
942001	AE2-212 C	1.5226	Adder	1.79
942131	AE2-225 C	1.1317	Adder	1.33
942151	AE2-227 C	2.0350	80/20	2.0350
942161	AE2-228 C	1.6015	Adder	1.88
942171	AE2-229 C	0.8488	Adder	1.0
942191	AE2-231 C O1	2.2229	Adder	2.62
942341	AE2-247 C	0.8465	Adder	1.0
942371	AE2-250 C O1	6.7716	Adder	7.97
942401	AE2-253 C	3.2442	Adder	3.82
942471	AE2-260 C O1	7.1975	Adder	8.47
942551	AE2-270	17.9099	Adder	21.07
943431	AF1-014 C	0.8575	Adder	1.01
943461	AF1-017 C	0.7659	Adder	0.9
943471	AF1-018	4.7852	Adder	5.63
943601	AF1-031 C	10.0284	80/20	10.0284
943611	AF1-032 C	0.9242	Adder	1.09
943621	AF1-033 C	1.4390	Adder	1.69
943741	AF1-042 C	1.7634	Adder	2.07
943991	AF1-067 C	4.9572	80/20	4.9572
944581	AF1-123 C O1	25.2045	Adder	29.65
944591	AF1-124 C O1	25.2045	Adder	29.65
944601	AF1-125 C O1	25.2045	Adder	29.65
944631	AF1-128 O1	49.3894	80/20	49.3894
944641	AF1-129	77.2341	Adder	90.86
944871	AF1-152 C	2.7433	Adder	3.23
945361	AF1-201 C O1	9.8953	Adder	11.64
945711	AF1-236 C O1	39.0439	Adder	45.93
946001	AF1-265	29.2905	80/20	29.2905
946011	AF1-266	7.0455	Adder	8.29
946261	AF1-291 C	1.6021	Adder	1.88
957411	AF2-035 C	4.0416	Adder	4.75
957491	AF2-043 C	1.1317	Adder	1.33
957531	AF2-047 C	8.4745	Adder	9.97
957601	AF2-054 C	1.3733	Adder	1.62
957631	AF2-057	1.9212	Adder	2.26
957711	AF2-065 C	9.1341	Adder	10.75
957821	AF2-076 C	2.7894	Adder	3.28
957831	AF2-077 C	1.3337	Adder	1.57
957871	AF2-081 C	5.2522	Adder	6.18
957911	AF2-085	2.0679	Adder	2.43

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
958141	AF2-108	1.1942	Adder	1.4
958161	AF2-110 C	0.7471	Adder	0.88
958261	AF2-120 C	3.7742	Adder	4.44
959641	AF2-255 C	0.5087	80/20	0.5087
959651	AF2-256 C	0.4004	Adder	0.47
959661	AF2-257 C	0.4005	Adder	0.47
959671	AF2-258 C	0.3806	Adder	0.45
959681	AF2-259 C	1.7914	Adder	2.11
960091	AF2-300 C	1.0104	Adder	1.19
961091	AF2-400 C	0.2367	Adder	0.28
961611	AG1-000B C	5.2476	Adder	11.65
961711	AG1-011	10.0371	Adder	22.28
961851	AG1-027 C	4.7866	Adder	10.63
961951	AG1-038 C	1.0330	Adder	2.29
962131	AG1-057	1.2681	Adder	2.81
962191	AG1-064 C	1.4189	80/20	1.4189
962201	AG1-065 C	1.4189	80/20	1.4189
962271	AG1-075 C O1	6.1943	Adder	13.75
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.6933	Adder	1.54
962531	AG1-102 C	0.3628	Adder	0.81
962851	AG1-134 C	9.9144	80/20	9.9144
962861	AG1-135 C	1.9491	Adder	4.33
962961	AG1-145 C	0.7385	Adder	1.64
962971	AG1-146 C	1.0161	Adder	2.26
962981	AG1-147 C	2.3708	Adder	5.26
963221	AG1-171 C	0.7674	Adder	1.7
963231	AG1-172 C	0.7674	Adder	1.7
963241	AG1-173 C	0.7674	Adder	1.7
963251	AG1-174 C	0.7674	Adder	1.7
963261	AG1-175 C	0.7674	Adder	1.7
963291	AG1-178 C O1	8.9423	Adder	19.85
963341	AG1-183 C	1.5851	Adder	3.52
963351	AG1-184 O1	7.5521	Adder	16.76
963381	AG1-187	0.6462	Adder	1.43
963611	AG1-210 C	0.2030	Adder	0.45
963621	AG1-213 C	0.1785	Adder	0.4
963821	AG1-235 C O1	6.7507	Adder	14.98
964021	AG1-256 C	0.3928	Adder	0.87
964211	AG1-282 C	0.6351	Adder	1.41
964801	AG1-343 C	1.5242	Adder	3.38
964951	AG1-359 O1	7.5231	Adder	16.7
965001	AG1-364 C O1	2.0355	Adder	4.52
965181	AG1-383 C	0.7721	Adder	1.71
965231	AG1-388 C	0.6351	Adder	1.41
965291	AG1-394 C	0.5238	Adder	1.16
965631	AG1-431	11.9803	Adder	26.59
966491	AG1-518 O1	2.4991	Adder	5.55
966611	AG1-531 C	2.0699	Adder	4.59
966661	AG1-536 C	1.7197	Adder	3.82
966711	AG1-541 C	1.4280	Adder	3.17
966731	AG1-544 C	2.3324	Adder	5.18

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
966741	AG1-545 C	0.7762	Adder	1.72
966871	AG1-558 C	2.4962	80/20	2.4962
966881	AG1-559 C	0.5355	Adder	1.19
966931	AG1-431A	9.0010	Adder	19.98
WEC	WEC	0.0706	Confirmed LTF	0.0706
LGEE	LGEE	0.1508	Confirmed LTF	0.1508
CPLE	CPLE	3.2849	Confirmed LTF	3.2849
CBM-W2	CBM-W2	7.5085	Confirmed LTF	7.5085
NY	NY	0.7034	Confirmed LTF	0.7034
TVA	TVA	1.6744	Confirmed LTF	1.6744
SIGE	SIGE	0.1759	Confirmed LTF	0.1759
CBM-S2	CBM-S2	36.1224	Confirmed LTF	36.1224
CBM-S1	CBM-S1	0.3884	Confirmed LTF	0.3884
MEC	MEC	0.6912	Confirmed LTF	0.6912
LAGN	LAGN	2.0913	Confirmed LTF	2.0913
AA2-074	AA2-074	2.1654	LTF	2.1654
CBM-W1	CBM-W1	2.3273	Confirmed LTF	2.3273

11.6.5 Index 5

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
168599001	314225	6CHARCTY	DVP	314227	6LAKESIDE	DVP	1	DVP_P1-2: LN 563	single	984.18	106.84	108.03	DC	15.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.1055	80/20	3.1055
314314	3LOCKS	0.2000	80/20	0.2000
314435	6SAPONY	0.2483	80/20	0.2483
314572	3EMPORIA	0.2029	80/20	0.2029
314704	3LAWRENC	0.1265	80/20	0.1265
315065	1CHESTF6 (Deactivation : 31/05/2023)	157.0208	80/20	157.0208
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0126	80/20	0.0126
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0126	80/20	0.0126
315076	1HOPPOLC	1.0533	80/20	1.0533
315077	1HOPHCF1	1.6464	80/20	1.6464
315078	1HOPHCF2	1.6464	80/20	1.6464
315079	1HOPHCF3	1.6464	80/20	1.6464
315080	1HOPHCF4	2.4994	80/20	2.4994
315083	1SPRUNCA (Deactivation : 12/01/2021)	2.8328	Adder	3.33
315084	1SPRUNCB (Deactivation : 12/01/2021)	2.8328	Adder	3.33
315116	1SURRY 1	10.4803	80/20	10.4803
315117	1GRAVELC	0.3673	80/20	0.3673
315119	1GRAVEL3	1.0647	80/20	1.0647
315120	1GRAVEL4	1.0783	80/20	1.0783
315121	1GRAVEL5	1.0647	80/20	1.0647
315122	1GRAVEL6	1.0771	80/20	1.0771
315126	1ROARAP2	0.5492	80/20	0.5492
315128	1ROARAP4	0.5240	80/20	0.5240
315136	1ROSEMG1	0.8839	80/20	0.8839
315137	1ROSEMS1	0.5481	80/20	0.5481
315138	1ROSEMG2	0.4143	80/20	0.4143
315139	1GASTONA	1.3091	80/20	1.3091
315141	1GASTONB	1.3091	80/20	1.3091
315293	1DOMTR9	2.0936	Adder	2.46
315294	1DOMTR10	2.5657	Adder	3.02
315607	3AA1-063SOLA	0.5527	80/20	0.5527
316033	AB2-134 C	1.1304	80/20	1.1304
316083	AB2-161 C (Suspended)	2.3374	80/20	2.3374
316087	AB2-174 C	0.5198	80/20	0.5198
316096	AB2-100 C1	0.4933	80/20	0.4933
316098	AB2-100 C2	0.4933	80/20	0.4933
316103	AB2-015 C	3.4445	80/20	3.4445

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316108	AB2-160 C (Suspended)	3.8535	80/20	3.8535
316129	AC1-054 C	2.2540	Adder	2.65
316132	AB2-190 C	11.7734	80/20	11.7734
316140	AB2-099 C (Suspended)	0.1933	Adder	0.23
316258	AE1-162 C	0.1353	80/20	0.1353
923991	AB2-040 C O1	3.3823	80/20	3.3823
926070	AC1-086 C	9.3307	80/20	9.3307
926201	AC1-098 C	2.0020	Adder	2.36
926211	AC1-099 C	0.6709	Adder	0.79
927145	AC1-208 C	2.9657	Adder	3.49
927225	AC1-216 C	0.8629	80/20	0.8629
932044	AC2-012 C	2.9065	Adder	3.42
932581	AC2-078 C O1	2.8436	80/20	2.8436
932591	AC2-079 C O1	3.1774	80/20	3.1774
932631	AC2-084 C	2.8539	Adder	3.36
933991	AD1-023 C	4.0849	Adder	4.81
934014	AD1-025 C	9.4002	80/20	9.4002
934061	AD1-033 C	2.0956	Adder	2.47
934331	AD1-057 C O1	3.3811	Adder	3.98
934521	AD1-076 C	16.7128	Adder	19.66
934575	AD1-082 C	5.3268	80/20	5.3268
935164	AD1-151 C	9.4608	80/20	9.4608
936041	AD2-007 C	0.4491	80/20	0.4491
936051	AD2-008 C	1.6366	80/20	1.6366
936401	AD2-051 C O1	2.8363	Adder	3.34
936661	AD2-085 C	1.6719	80/20	1.6719
936761	AD2-097 C	0.5373	Adder	0.63
937221	AD2-160 C O1	1.6419	Adder	1.93
938494	AE1-068_C1	8.5011	Adder	10.0
938497	AE1-068_C2	8.5011	Adder	10.0
938504	AE1-069_C1	6.4788	Adder	7.62
938507	AE1-069_C2	6.9857	Adder	8.22
938535	AE1-072 C	4.9749	Adder	5.85
938634	AE1-085 C	6.3085	80/20	6.3085
938771	AE1-103 C	1.4524	80/20	1.4524
939195	AE1-149 C	8.0064	80/20	8.0064
939414	AE1-173_C1	8.7893	Adder	10.34
939415	AE1-173_C2	7.5337	Adder	8.86
939416	AE1-173_C3	8.7893	Adder	10.34
940061	AE2-000BC O1	7.2096	80/20	7.2096
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	49.0351	Adder	57.69
940431	AE2-027 C O1	6.5470	80/20	6.5470
940471	AE2-031 C	9.2526	Adder	10.89
940481	AE2-033 C	9.9066	80/20	9.9066
940491	AE2-034 C	2.1784	Adder	2.56
940541	AE2-040	1.7903	80/20	1.7903
940641	AE2-051 C O1	4.7958	Adder	5.64
940651	AE2-052	2.6688	80/20	2.6688
940891	AE2-078 C	0.9776	80/20	0.9776
940901	AE2-079 C	0.9776	80/20	0.9776
941031	AE2-094 C	11.1325	Adder	13.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941101	AE2-104 C O1	1.3219	80/20	1.3219
941281	AE2-122 C O1	8.0026	Adder	9.41
941291	AE2-123 C O1	8.2242	Adder	9.68
941301	AE2-124 C O1	7.4687	Adder	8.79
941501	AE2-147 C	4.6206	Adder	5.44
941591	AE2-156 O1	5.0864	Adder	5.98
942001	AE2-212 C	2.3497	80/20	2.3497
942131	AE2-225 C	0.6231	Adder	0.73
942161	AE2-228 C	2.6681	80/20	2.6681
942171	AE2-229 C	0.4673	Adder	0.55
942341	AE2-247 C	0.7267	80/20	0.7267
942371	AE2-250 C O1	6.8450	80/20	6.8450
942401	AE2-253 C	1.7269	Adder	2.03
942471	AE2-260 C O1	7.9028	80/20	7.9028
942551	AE2-270	15.3270	80/20	15.3270
942931	AE2-313 C	10.0023	Adder	11.77
943171	AE2-346 C	0.4638	Adder	0.55
943461	AF1-017 C	0.6575	80/20	0.6575
943611	AF1-032 C	0.5089	Adder	0.6
943621	AF1-033 C	0.9776	80/20	0.9776
943911	AF1-059	5.3990	Adder	6.35
944011	AF1-069 C	3.6374	Adder	4.28
944641	AF1-129	131.7576	80/20	131.7576
944871	AF1-152 C	1.5402	Adder	1.81
945711	AF1-236 C O1	23.8484	Adder	28.06
946011	AF1-266	8.2926	80/20	8.2926
946261	AF1-291 C	2.6858	80/20	2.6858
946281	AF1-292 C	0.7377	80/20	0.7377
957491	AF2-043 C	0.6231	Adder	0.73
957521	AF2-046 C	5.6522	Adder	6.65
957531	AF2-047 C	5.1763	Adder	6.09
957631	AF2-057	1.0198	Adder	1.2
957711	AF2-065 C	7.8168	80/20	7.8168
957821	AF2-076 C	1.5632	Adder	1.84
957871	AF2-081 C	2.8084	Adder	3.3
958141	AF2-108	1.6576	80/20	1.6576
958161	AF2-110 C	0.5450	80/20	0.5450
959511	AF2-242 C	2.2392	Adder	2.63
959651	AF2-256 C	0.6670	80/20	0.6670
959661	AF2-257 C	0.6715	80/20	0.6715
959671	AF2-258 C	0.5874	80/20	0.5874
959681	AF2-259 C	2.4864	80/20	2.4864
960081	AF2-299 C	1.2434	80/20	1.2434
961091	AF2-400 C	0.1860	80/20	0.1860
961611	AG1-000B C	7.4164	80/20	7.4164
961681	AG1-008 C	3.0017	Adder	6.66
961711	AG1-011	15.9664	80/20	15.9664
961851	AG1-027 C	6.7224	80/20	6.7224
961931	AG1-036 C	0.2399	Adder	0.53
961941	AG1-037 C	0.0878	Adder	0.19
962271	AG1-075 C O1	11.8140	80/20	11.8140

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.8887	80/20	0.8887
962331	AG1-082 C	0.3512	Adder	0.78
962341	AG1-083 C	0.3512	Adder	0.78
962351	AG1-084 C	0.3041	Adder	0.68
962361	AG1-085 C	0.3041	Adder	0.68
962571	AG1-106 C	2.5948	80/20	2.5948
963041	AG1-153 C	0.8210	Adder	1.82
963111	AG1-160 C	0.8317	Adder	1.85
963221	AG1-171 C	1.2614	80/20	1.2614
963231	AG1-172 C	1.2614	80/20	1.2614
963241	AG1-173 C	1.2614	80/20	1.2614
963251	AG1-174 C	1.2614	80/20	1.2614
963261	AG1-175 C	1.2614	80/20	1.2614
963291	AG1-178 C O1	9.0130	Adder	20.01
963301	AG1-179 C	2.3555	80/20	2.3555
963311	AG1-180	1.1477	80/20	1.1477
963351	AG1-184 O1	4.8557	Adder	10.78
963821	AG1-235 C O1	3.5724	Adder	7.93
964491	AG1-312 C O1	3.1863	Adder	7.07
964501	AG1-313 C O1	0.8370	Adder	1.86
964801	AG1-343 C	1.0727	Adder	2.38
964951	AG1-359 O1	3.9606	Adder	8.79
965001	AG1-364 C O1	1.0787	Adder	2.39
965181	AG1-383 C	0.4081	Adder	0.91
965291	AG1-394 C	0.3690	Adder	0.82
965451	AG1-413 C O1	1.2029	Adder	2.67
965601	AG1-428 C O1	1.9664	80/20	1.9664
965631	AG1-431	7.3177	Adder	16.24
965691	AG1-437 C O1	1.6832	Adder	3.74
965701	AG1-438 C O1	1.6832	Adder	3.74
965741	AG1-442 O1	0.9818	Adder	2.18
965751	AG1-443 O1	0.9818	Adder	2.18
965811	AG1-449	3.4384	Adder	7.63
966361	AG1-505 C	2.3990	Adder	5.33
966371	AG1-506 C	2.3990	Adder	5.33
966491	AG1-518 O1	1.3761	Adder	3.05
966611	AG1-531 C	1.0165	Adder	2.26
966621	AG1-532 C	0.6714	80/20	0.6714
966731	AG1-544 C	4.9269	80/20	4.9269
966741	AG1-545 C	1.6339	80/20	1.6339
966751	AG1-546 C	2.6651	Adder	5.92
966801	AG1-551 C	0.3651	Adder	0.81
966811	AG1-552 C	0.8719	80/20	0.8719
966931	AG1-431A	5.4979	Adder	12.2
WEC	WEC	0.1972	Confirmed LTF	0.1972
LGEE	LGEE	0.4090	Confirmed LTF	0.4090
CPL	CPL	2.5573	Confirmed LTF	2.5573
CBM-W2	CBM-W2	9.5514	Confirmed LTF	9.5514
NY	NY	0.4568	Confirmed LTF	0.4568
TVA	TVA	1.8564	Confirmed LTF	1.8564
SIGE	SIGE	0.1720	Confirmed LTF	0.1720

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	29.8480	Confirmed LTF	29.8480
CBM-S1	CBM-S1	0.4571	Confirmed LTF	0.4571
MEC	MEC	1.2378	Confirmed LTF	1.2378
LAGN	LAGN	2.3065	Confirmed LTF	2.3065
AA2-074	AA2-074	1.6884	LTF	1.6884
CBM-W1	CBM-W1	8.1036	Confirmed LTF	8.1036

11.6.6 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
168598881	314236	6NRTHEST	DVP	314218	6ELMONT	DVP	1	DVP_P1-2: LN 557	single	678.68	116.5	117.45	DC	14.16

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314184	3SHACKLE	0.3039	80/20	0.3039
314236	6NRTHEST	0.3943	80/20	0.3943
314243	3PROV 92	0.2838	80/20	0.2838
314314	3LOCKS	0.1625	80/20	0.1625
314375	6CORRCTN	0.2160	80/20	0.2160
315058	1CHESTF3 (Deactivation : 13/12/2018)	13.0820	80/20	13.0820
315059	1CHESTF4 (Deactivation : 13/12/2018)	21.2059	80/20	21.2059
315060	1CHESTF5 (Deactivation : 31/05/2023)	27.2332	Adder	32.04
315065	1CHESTF6 (Deactivation : 31/05/2023)	72.1431	80/20	72.1431
315067	1DARBY 1	4.8719	80/20	4.8719
315068	1DARBY 2	4.8776	80/20	4.8776
315069	1DARBY 3	4.8947	80/20	4.8947
315070	1DARBY 4	4.9004	80/20	4.9004
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0095	80/20	0.0095
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0095	80/20	0.0095
315076	1HOPPOLC	0.7985	80/20	0.7985
315077	1HOPHCF1	1.2481	80/20	1.2481
315078	1HOPHCF2	1.2481	80/20	1.2481
315079	1HOPHCF3	1.2481	80/20	1.2481
315080	1HOPHCF4	1.8947	80/20	1.8947
315083	1SPRUNCA (Deactivation : 12/01/2021)	12.1446	80/20	12.1446
315084	1SPRUNCB (Deactivation : 12/01/2021)	12.1446	80/20	12.1446
316075	AC2-137 C	0.3699	80/20	0.3699
316083	AB2-161 C (Suspended)	1.3994	Adder	1.65
316103	AB2-015 C	2.8777	Adder	3.39
316108	AB2-160 C (Suspended)	3.1321	80/20	3.1321
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	21.7960	Adder	25.64
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	21.7960	Adder	25.64
316114	AB2-068 ST (Withdrawn : 01/11/2021)	37.7593	Adder	44.42
316132	AB2-190 C	8.5604	Adder	10.07
316134	AC1-107 G1	40.9289	Adder	48.15

Bus #	Bus	Gendoliv MW Impact	Type	Full MW Impact
316135	AC1-107 G2	40.9289	Adder	48.15
316136	AC1-107 G3	40.9366	Adder	48.16
925863	AC1-065 C	4.0262	80/20	4.0262
926754	AC1-161 C	10.3668	Adder	12.2
926784	AC1-164 C	24.4404	80/20	24.4404
932044	AC2-012 C	3.5785	Adder	4.21
932581	AC2-078 C O1	1.6872	Adder	1.98
932591	AC2-079 C O1	2.2167	Adder	2.61
933294	AC2-141 C	10.3668	Adder	12.2
934014	AD1-025 C	7.0878	Adder	8.34
934061	AD1-033 C	2.6032	Adder	3.06
934141	AD1-041 C	2.8263	80/20	2.8263
934391	AD1-063 C	0.1367	80/20	0.1367
934575	AD1-082 C	3.1892	Adder	3.75
935164	AD1-151 C	6.8789	Adder	8.09
936041	AD2-007 C	0.3386	Adder	0.4
936051	AD2-008 C	1.2340	Adder	1.45
936151	AD2-021	0.0422	80/20	0.0422
936591	AD2-074 C	2.1500	Adder	2.53
936661	AD2-085 C	1.2821	Adder	1.51
936761	AD2-097 C	2.3033	80/20	2.3033
937221	AD2-160 C O1	2.0188	Adder	2.38
938535	AE1-072 C	6.0630	Adder	7.13
938634	AE1-085 C	3.7149	Adder	4.37
938771	AE1-103 C	1.2395	Adder	1.46
939195	AE1-149 C	4.5467	Adder	5.35
939245	AE1-155 C	4.8683	Adder	5.73
939431	AE1-175 C	1.2430	80/20	1.2430
939611	AE1-191 C	5.6526	80/20	5.6526
940061	AE2-000BC O1	4.3845	Adder	5.16
940231	AE2-005 C	0.7320	80/20	0.7320
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	60.6400	Adder	71.34
940431	AE2-027 C O1	8.2030	80/20	8.2030
940481	AE2-033 C	5.5436	Adder	6.52
940541	AE2-040	0.9914	Adder	1.17
940551	AE2-041	3.8512	80/20	3.8512
940651	AE2-052	1.5155	Adder	1.78
940891	AE2-078 C	0.9338	Adder	1.1
940901	AE2-079 C	0.9338	Adder	1.1
941101	AE2-104 C O1	1.1883	Adder	1.4
941281	AE2-122 C O1	9.8976	Adder	11.64
941291	AE2-123 C O1	10.1716	Adder	11.97
941301	AE2-124 C O1	9.2422	Adder	10.87
941501	AE2-147 C	5.3925	Adder	6.34
941591	AE2-156 O1	6.2747	Adder	7.38
942001	AE2-212 C	1.1974	80/20	1.1974
942131	AE2-225 C	0.7413	Adder	0.87
942161	AE2-228 C	1.2562	80/20	1.2562
942171	AE2-229 C	0.5560	Adder	0.65
942341	AE2-247 C	0.5561	Adder	0.65
942371	AE2-250 C O1	5.5636	80/20	5.5636

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942401	AE2-253 C	2.1234	Adder	2.5
942471	AE2-260 C O1	4.7386	Adder	5.57
942551	AE2-270	11.3666	Adder	13.37
943431	AF1-014 C	0.6935	80/20	0.6935
943461	AF1-017 C	0.5032	Adder	0.59
943471	AF1-018	3.8512	80/20	3.8512
943611	AF1-032 C	0.6054	Adder	0.71
943621	AF1-033 C	0.9338	Adder	1.1
943741	AF1-042 C	1.1250	Adder	1.32
944581	AF1-123 C O1	16.5029	Adder	19.42
944591	AF1-124 C O1	16.5029	Adder	19.42
944601	AF1-125 C O1	16.5029	Adder	19.42
944631	AF1-128 O1	23.8796	Adder	28.09
944641	AF1-129	60.5359	80/20	60.5359
944871	AF1-152 C	1.7975	Adder	2.11
945361	AF1-201 C O1	6.6479	Adder	7.82
946011	AF1-266	4.6405	Adder	5.46
946261	AF1-291 C	1.2548	80/20	1.2548
957491	AF2-043 C	0.7413	Adder	0.87
957601	AF2-054 C	0.9283	Adder	1.09
957631	AF2-057	1.2556	Adder	1.48
957711	AF2-065 C	5.7970	Adder	6.82
957821	AF2-076 C	1.8278	Adder	2.15
957831	AF2-077 C	0.8974	Adder	1.06
957871	AF2-081 C	3.4381	Adder	4.04
958141	AF2-108	0.9422	80/20	0.9422
958161	AF2-110 C	0.4899	Adder	0.58
958261	AF2-120 C	2.3851	Adder	2.81
959651	AF2-256 C	0.3140	80/20	0.3140
959661	AF2-257 C	0.3137	80/20	0.3137
959671	AF2-258 C	0.2993	80/20	0.2993
959681	AF2-259 C	1.4133	80/20	1.4133
961091	AF2-400 C	0.1554	Adder	0.18
961611	AG1-000B C	3.3764	Adder	7.49
961711	AG1-011	6.3805	Adder	14.16
961851	AG1-027 C	3.1398	Adder	6.97
961951	AG1-038 C	0.6590	Adder	1.46
962131	AG1-057	1.9256	80/20	1.9256
962271	AG1-075 C O1	9.6024	80/20	9.6024
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.4499	Adder	1.0
962531	AG1-102 C	0.2442	Adder	0.54
962861	AG1-135 C	1.2368	Adder	2.75
962961	AG1-145 C	1.1215	80/20	1.1215
962971	AG1-146 C	0.6601	Adder	1.47
962981	AG1-147 C	1.5402	Adder	3.42
963221	AG1-171 C	0.4861	Adder	1.08
963231	AG1-172 C	0.4861	Adder	1.08
963241	AG1-173 C	0.4861	Adder	1.08
963251	AG1-174 C	0.4861	Adder	1.08
963261	AG1-175 C	0.4861	Adder	1.08
963611	AG1-210 C	0.1238	Adder	0.27

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963821	AG1-235 C O1	4.4184	Adder	9.81
964211	AG1-282 C	0.3960	Adder	0.88
964951	AG1-359 O1	4.9235	Adder	10.93
965001	AG1-364 C O1	1.3304	Adder	2.95
965181	AG1-383 C	0.5054	Adder	1.12
965231	AG1-388 C	0.3960	Adder	0.88
966491	AG1-518 O1	1.6371	Adder	3.63
966611	AG1-531 C	1.3594	Adder	3.02
966661	AG1-536 C	1.0864	Adder	2.41
966731	AG1-544 C	1.5377	Adder	3.41
966741	AG1-545 C	0.5117	Adder	1.14
WEC	WEC	0.1191	Confirmed LTF	0.1191
LGEE	LGEE	0.2494	Confirmed LTF	0.2494
CPL	CPL	2.2154	Confirmed LTF	2.2154
CBM-W2	CBM-W2	6.9440	Confirmed LTF	6.9440
NY	NY	0.4606	Confirmed LTF	0.4606
TVA	TVA	1.4112	Confirmed LTF	1.4112
SIGE	SIGE	0.1432	Confirmed LTF	0.1432
CBM-S2	CBM-S2	25.2439	Confirmed LTF	25.2439
CBM-S1	CBM-S1	0.3409	Confirmed LTF	0.3409
MEC	MEC	0.8183	Confirmed LTF	0.8183
LAGN	LAGN	1.7552	Confirmed LTF	1.7552
AA2-074	AA2-074	1.4616	LTF	1.4616
CBM-W1	CBM-W1	4.7107	Confirmed LTF	4.7107

11.6.7 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
168598989	314260	6VARINA	DVP	314225	6CHARCTY	DVP	1	DVP_P1-2: LN 563	single	984.18	110.25	111.44	DC	15.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.1055	80/20	3.1055
314314	3LOCKS	0.2000	80/20	0.2000
314435	6SAPONY	0.2483	80/20	0.2483
314572	3EMPORIA	0.2029	80/20	0.2029
314704	3LAWRENC	0.1265	80/20	0.1265
315065	1CHESTF6 (Deactivation : 31/05/2023)	157.0208	80/20	157.0208
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0126	80/20	0.0126
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0126	80/20	0.0126
315076	1HOPPOLC	1.0533	80/20	1.0533
315077	1HOPHCF1	1.6464	80/20	1.6464
315078	1HOPHCF2	1.6464	80/20	1.6464
315079	1HOPHCF3	1.6464	80/20	1.6464
315080	1HOPHCF4	2.4994	80/20	2.4994
315083	1SPRUNCA (Deactivation : 12/01/2021)	2.8328	Adder	3.33
315084	1SPRUNCB (Deactivation : 12/01/2021)	2.8328	Adder	3.33
315116	1SURRY 1	10.4803	80/20	10.4803
315117	1GRAVELC	0.3673	80/20	0.3673
315119	1GRAVEL3	1.0647	80/20	1.0647
315120	1GRAVEL4	1.0783	80/20	1.0783
315121	1GRAVEL5	1.0647	80/20	1.0647
315122	1GRAVEL6	1.0771	80/20	1.0771
315126	1ROARAP2	0.5492	80/20	0.5492
315128	1ROARAP4	0.5240	80/20	0.5240
315136	1ROSEMG1	0.8839	80/20	0.8839
315137	1ROSEMS1	0.5481	80/20	0.5481
315138	1ROSEMG2	0.4143	80/20	0.4143
315139	1GASTONA	1.3091	80/20	1.3091
315141	1GASTONB	1.3091	80/20	1.3091
315293	1DOMTR9	2.0936	Adder	2.46
315294	1DOMTR10	2.5657	Adder	3.02
315607	3AA1-063SOLA	0.5527	80/20	0.5527
316033	AB2-134 C	1.1304	80/20	1.1304
316083	AB2-161 C (Suspended)	2.3374	80/20	2.3374
316087	AB2-174 C	0.5198	80/20	0.5198
316096	AB2-100 C1	0.4933	80/20	0.4933
316098	AB2-100 C2	0.4933	80/20	0.4933
316103	AB2-015 C	3.4445	80/20	3.4445

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316108	AB2-160 C (Suspended)	3.8535	80/20	3.8535
316129	AC1-054 C	2.2540	Adder	2.65
316132	AB2-190 C	11.7734	80/20	11.7734
316140	AB2-099 C (Suspended)	0.1933	Adder	0.23
316258	AE1-162 C	0.1353	80/20	0.1353
923991	AB2-040 C O1	3.3823	80/20	3.3823
926070	AC1-086 C	9.3307	80/20	9.3307
926201	AC1-098 C	2.0020	Adder	2.36
926211	AC1-099 C	0.6709	Adder	0.79
927145	AC1-208 C	2.9657	Adder	3.49
927225	AC1-216 C	0.8629	80/20	0.8629
932044	AC2-012 C	2.9065	Adder	3.42
932581	AC2-078 C O1	2.8436	80/20	2.8436
932591	AC2-079 C O1	3.1774	80/20	3.1774
932631	AC2-084 C	2.8539	Adder	3.36
933991	AD1-023 C	4.0849	Adder	4.81
934014	AD1-025 C	9.4002	80/20	9.4002
934061	AD1-033 C	2.0956	Adder	2.47
934331	AD1-057 C O1	3.3811	Adder	3.98
934521	AD1-076 C	16.7128	Adder	19.66
934575	AD1-082 C	5.3268	80/20	5.3268
935164	AD1-151 C	9.4608	80/20	9.4608
936041	AD2-007 C	0.4491	80/20	0.4491
936051	AD2-008 C	1.6366	80/20	1.6366
936401	AD2-051 C O1	2.8363	Adder	3.34
936661	AD2-085 C	1.6719	80/20	1.6719
936761	AD2-097 C	0.5373	Adder	0.63
937221	AD2-160 C O1	1.6419	Adder	1.93
938494	AE1-068_C1	8.5011	Adder	10.0
938497	AE1-068_C2	8.5011	Adder	10.0
938504	AE1-069_C1	6.4788	Adder	7.62
938507	AE1-069_C2	6.9857	Adder	8.22
938535	AE1-072 C	4.9749	Adder	5.85
938634	AE1-085 C	6.3085	80/20	6.3085
938771	AE1-103 C	1.4524	80/20	1.4524
939195	AE1-149 C	8.0064	80/20	8.0064
939414	AE1-173_C1	8.7893	Adder	10.34
939415	AE1-173_C2	7.5337	Adder	8.86
939416	AE1-173_C3	8.7893	Adder	10.34
940061	AE2-000BC O1	7.2096	80/20	7.2096
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	49.0351	Adder	57.69
940431	AE2-027 C O1	6.5470	80/20	6.5470
940471	AE2-031 C	9.2526	Adder	10.89
940481	AE2-033 C	9.9066	80/20	9.9066
940491	AE2-034 C	2.1784	Adder	2.56
940541	AE2-040	1.7903	80/20	1.7903
940641	AE2-051 C O1	4.7958	Adder	5.64
940651	AE2-052	2.6688	80/20	2.6688
940891	AE2-078 C	0.9776	80/20	0.9776
940901	AE2-079 C	0.9776	80/20	0.9776
941031	AE2-094 C	11.1325	Adder	13.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941101	AE2-104 C O1	1.3219	80/20	1.3219
941281	AE2-122 C O1	8.0026	Adder	9.41
941291	AE2-123 C O1	8.2242	Adder	9.68
941301	AE2-124 C O1	7.4687	Adder	8.79
941501	AE2-147 C	4.6206	Adder	5.44
941591	AE2-156 O1	5.0864	Adder	5.98
942001	AE2-212 C	2.3497	80/20	2.3497
942131	AE2-225 C	0.6231	Adder	0.73
942161	AE2-228 C	2.6681	80/20	2.6681
942171	AE2-229 C	0.4673	Adder	0.55
942341	AE2-247 C	0.7267	80/20	0.7267
942371	AE2-250 C O1	6.8450	80/20	6.8450
942401	AE2-253 C	1.7269	Adder	2.03
942471	AE2-260 C O1	7.9028	80/20	7.9028
942551	AE2-270	15.3270	80/20	15.3270
942931	AE2-313 C	10.0023	Adder	11.77
943171	AE2-346 C	0.4638	Adder	0.55
943461	AF1-017 C	0.6575	80/20	0.6575
943611	AF1-032 C	0.5089	Adder	0.6
943621	AF1-033 C	0.9776	80/20	0.9776
943911	AF1-059	5.3990	Adder	6.35
944011	AF1-069 C	3.6374	Adder	4.28
944641	AF1-129	131.7576	80/20	131.7576
944871	AF1-152 C	1.5402	Adder	1.81
945711	AF1-236 C O1	23.8484	Adder	28.06
946011	AF1-266	8.2926	80/20	8.2926
946261	AF1-291 C	2.6858	80/20	2.6858
946281	AF1-292 C	0.7377	80/20	0.7377
957491	AF2-043 C	0.6231	Adder	0.73
957521	AF2-046 C	5.6522	Adder	6.65
957531	AF2-047 C	5.1763	Adder	6.09
957631	AF2-057	1.0198	Adder	1.2
957711	AF2-065 C	7.8168	80/20	7.8168
957821	AF2-076 C	1.5632	Adder	1.84
957871	AF2-081 C	2.8084	Adder	3.3
958141	AF2-108	1.6576	80/20	1.6576
958161	AF2-110 C	0.5450	80/20	0.5450
959511	AF2-242 C	2.2392	Adder	2.63
959651	AF2-256 C	0.6670	80/20	0.6670
959661	AF2-257 C	0.6715	80/20	0.6715
959671	AF2-258 C	0.5874	80/20	0.5874
959681	AF2-259 C	2.4864	80/20	2.4864
960081	AF2-299 C	1.2434	80/20	1.2434
961091	AF2-400 C	0.1860	80/20	0.1860
961611	AG1-000B C	7.4164	80/20	7.4164
961681	AG1-008 C	3.0017	Adder	6.66
961711	AG1-011	15.9664	80/20	15.9664
961851	AG1-027 C	6.7224	80/20	6.7224
961931	AG1-036 C	0.2399	Adder	0.53
961941	AG1-037 C	0.0878	Adder	0.19
962271	AG1-075 C O1	11.8140	80/20	11.8140

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.8887	80/20	0.8887
962331	AG1-082 C	0.3512	Adder	0.78
962341	AG1-083 C	0.3512	Adder	0.78
962351	AG1-084 C	0.3041	Adder	0.68
962361	AG1-085 C	0.3041	Adder	0.68
962571	AG1-106 C	2.5948	80/20	2.5948
963041	AG1-153 C	0.8210	Adder	1.82
963111	AG1-160 C	0.8317	Adder	1.85
963221	AG1-171 C	1.2614	80/20	1.2614
963231	AG1-172 C	1.2614	80/20	1.2614
963241	AG1-173 C	1.2614	80/20	1.2614
963251	AG1-174 C	1.2614	80/20	1.2614
963261	AG1-175 C	1.2614	80/20	1.2614
963291	AG1-178 C O1	9.0130	Adder	20.01
963301	AG1-179 C	2.3555	80/20	2.3555
963311	AG1-180	1.1477	80/20	1.1477
963351	AG1-184 O1	4.8557	Adder	10.78
963821	AG1-235 C O1	3.5724	Adder	7.93
964491	AG1-312 C O1	3.1863	Adder	7.07
964501	AG1-313 C O1	0.8370	Adder	1.86
964801	AG1-343 C	1.0727	Adder	2.38
964951	AG1-359 O1	3.9606	Adder	8.79
965001	AG1-364 C O1	1.0787	Adder	2.39
965181	AG1-383 C	0.4081	Adder	0.91
965291	AG1-394 C	0.3690	Adder	0.82
965451	AG1-413 C O1	1.2029	Adder	2.67
965601	AG1-428 C O1	1.9664	80/20	1.9664
965631	AG1-431	7.3177	Adder	16.24
965691	AG1-437 C O1	1.6832	Adder	3.74
965701	AG1-438 C O1	1.6832	Adder	3.74
965741	AG1-442 O1	0.9818	Adder	2.18
965751	AG1-443 O1	0.9818	Adder	2.18
965811	AG1-449	3.4384	Adder	7.63
966361	AG1-505 C	2.3990	Adder	5.33
966371	AG1-506 C	2.3990	Adder	5.33
966491	AG1-518 O1	1.3761	Adder	3.05
966611	AG1-531 C	1.0165	Adder	2.26
966621	AG1-532 C	0.6714	80/20	0.6714
966731	AG1-544 C	4.9269	80/20	4.9269
966741	AG1-545 C	1.6339	80/20	1.6339
966751	AG1-546 C	2.6651	Adder	5.92
966801	AG1-551 C	0.3651	Adder	0.81
966811	AG1-552 C	0.8719	80/20	0.8719
966931	AG1-431A	5.4979	Adder	12.2
WEC	WEC	0.1972	Confirmed LTF	0.1972
LGEE	LGEE	0.4090	Confirmed LTF	0.4090
CPL	CPL	2.5573	Confirmed LTF	2.5573
CBM-W2	CBM-W2	9.5514	Confirmed LTF	9.5514
NY	NY	0.4568	Confirmed LTF	0.4568
TVA	TVA	1.8564	Confirmed LTF	1.8564
SIGE	SIGE	0.1720	Confirmed LTF	0.1720

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	29.8480	Confirmed LTF	29.8480
CBM-S1	CBM-S1	0.4571	Confirmed LTF	0.4571
MEC	MEC	1.2378	Confirmed LTF	1.2378
LAGN	LAGN	2.3065	Confirmed LTF	2.3065
AA2-074	AA2-074	1.6884	LTF	1.6884
CBM-W1	CBM-W1	8.1036	Confirmed LTF	8.1036

11.6.8 Index 8

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
168598745	314287	6CHESTFB	DVP	314276	6BASIN	DVP	1	DVP_P1-2: LN 563	single	663.64	156.25	157.94	DC	16.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.1609	80/20	3.1609
314314	3LOCKS	0.1812	80/20	0.1812
314435	6SAPONY	0.2595	80/20	0.2595
314572	3EMPORIA	0.2071	80/20	0.2071
314704	3LAWRENC	0.1265	80/20	0.1265
315065	1CHESTF6 (Deactivation : 31/05/2023)	171.7627	80/20	171.7627
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0130	80/20	0.0130
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0130	80/20	0.0130
315076	1HOPPOLC	1.0898	80/20	1.0898
315077	1HOPHCF1	1.7034	80/20	1.7034
315078	1HOPHCF2	1.7034	80/20	1.7034
315079	1HOPHCF3	1.7034	80/20	1.7034
315080	1HOPHCF4	2.5859	80/20	2.5859
315116	1SURRY 1	10.5895	80/20	10.5895
315117	1GRAVELC	0.3711	80/20	0.3711
315119	1GRAVEL3	1.0758	80/20	1.0758
315120	1GRAVEL4	1.0895	80/20	1.0895
315121	1GRAVEL5	1.0758	80/20	1.0758
315122	1GRAVEL6	1.0883	80/20	1.0883
315126	1ROARAP2	0.5558	80/20	0.5558
315128	1ROARAP4	0.5304	80/20	0.5304
315136	1ROSEMG1	0.9037	80/20	0.9037
315137	1ROSEMS1	0.5604	80/20	0.5604
315138	1ROSEMG2	0.4235	80/20	0.4235
315139	1GASTONA	1.3401	80/20	1.3401
315141	1GASTONB	1.3401	80/20	1.3401
315293	1DOMTR9	2.1172	Adder	2.49
315294	1DOMTR10	2.5946	Adder	3.05
316033	AB2-134 C	1.1577	80/20	1.1577
316083	AB2-161 C (Suspended)	2.4206	80/20	2.4206
316087	AB2-174 C	0.5296	80/20	0.5296
316096	AB2-100 C1	0.5104	80/20	0.5104
316098	AB2-100 C2	0.5104	80/20	0.5104
316103	AB2-015 C	3.4915	80/20	3.4915
316108	AB2-160 C (Suspended)	3.4917	80/20	3.4917
316132	AB2-190 C	12.0882	80/20	12.0882
316140	AB2-099 C (Suspended)	0.1958	Adder	0.23
316258	AE1-162 C	0.1367	80/20	0.1367
923991	AB2-040 C O1	3.4426	80/20	3.4426

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926070	AC1-086 C	9.5521	80/20	9.5521
926201	AC1-098 C	2.0259	Adder	2.38
926211	AC1-099 C	0.6789	Adder	0.8
927145	AC1-208 C	3.0006	Adder	3.53
927225	AC1-216 C	0.8837	80/20	0.8837
932581	AC2-078 C O1	2.9460	80/20	2.9460
932591	AC2-079 C O1	3.2684	80/20	3.2684
932631	AC2-084 C	2.8880	Adder	3.4
933991	AD1-023 C	4.1331	Adder	4.86
934014	AD1-025 C	9.6272	80/20	9.6272
934331	AD1-057 C O1	3.4410	Adder	4.05
934521	AD1-076 C	16.9036	Adder	19.89
934575	AD1-082 C	5.5164	80/20	5.5164
935164	AD1-151 C	9.7137	80/20	9.7137
936041	AD2-007 C	0.4599	80/20	0.4599
936051	AD2-008 C	1.6761	80/20	1.6761
936401	AD2-051 C O1	2.8751	Adder	3.38
936661	AD2-085 C	1.7118	80/20	1.7118
936761	AD2-097 C	-2.4572	Adder	-2.89
938494	AE1-068_C1	8.5914	Adder	10.11
938497	AE1-068_C2	8.5914	Adder	10.11
938504	AE1-069_C1	6.5476	Adder	7.7
938507	AE1-069_C2	7.0599	Adder	8.31
938634	AE1-085 C	6.5375	80/20	6.5375
938771	AE1-103 C	1.4727	80/20	1.4727
939195	AE1-149 C	8.3088	80/20	8.3088
939414	AE1-173_C1	8.9050	Adder	10.48
939415	AE1-173_C2	7.6329	Adder	8.98
939416	AE1-173_C3	8.9050	Adder	10.48
940061	AE2-000BC O1	7.4610	80/20	7.4610
940471	AE2-031 C	9.3340	Adder	10.98
940481	AE2-033 C	10.3427	80/20	10.3427
940491	AE2-034 C	2.2016	Adder	2.59
940541	AE2-040	1.8713	80/20	1.8713
940641	AE2-051 C O1	4.8662	Adder	5.72
940651	AE2-052	2.7696	80/20	2.7696
940891	AE2-078 C	0.9797	80/20	0.9797
940901	AE2-079 C	0.9797	80/20	0.9797
941031	AE2-094 C	11.2699	Adder	13.26
941101	AE2-104 C O1	1.3412	80/20	1.3412
941501	AE2-147 C	4.6611	Adder	5.48
942001	AE2-212 C	2.5230	80/20	2.5230
942131	AE2-225 C	0.6279	Adder	0.74
942161	AE2-228 C	2.9064	80/20	2.9064
942171	AE2-229 C	0.4709	Adder	0.55
942341	AE2-247 C	0.7441	80/20	0.7441
942371	AE2-250 C O1	6.2024	80/20	6.2024
942471	AE2-260 C O1	8.1865	80/20	8.1865
942551	AE2-270	15.7155	80/20	15.7155
942931	AE2-313 C	10.0888	Adder	11.87
943171	AE2-346 C	0.4698	Adder	0.55
943461	AF1-017 C	0.6732	80/20	0.6732

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943611	AF1-032 C	0.5128	Adder	0.6
943621	AF1-033 C	0.9797	80/20	0.9797
943911	AF1-059	5.2683	Adder	6.2
944011	AF1-069 C	3.6823	Adder	4.33
944641	AF1-129	144.1277	80/20	144.1277
944871	AF1-152 C	1.5537	Adder	1.83
945711	AF1-236 C O1	24.1025	Adder	28.36
946011	AF1-266	8.6576	80/20	8.6576
946261	AF1-291 C	2.9323	80/20	2.9323
946281	AF1-292 C	0.7536	80/20	0.7536
957491	AF2-043 C	0.6279	Adder	0.74
957521	AF2-046 C	5.7260	Adder	6.74
957531	AF2-047 C	5.2315	Adder	6.15
957711	AF2-065 C	8.0149	80/20	8.0149
957821	AF2-076 C	1.5759	Adder	1.85
958141	AF2-108	1.7404	80/20	1.7404
958161	AF2-110 C	0.5529	80/20	0.5529
959651	AF2-256 C	0.7266	80/20	0.7266
959661	AF2-257 C	0.7331	80/20	0.7331
959671	AF2-258 C	0.6308	80/20	0.6308
959681	AF2-259 C	2.6106	80/20	2.6106
960081	AF2-299 C	1.2701	80/20	1.2701
961091	AF2-400 C	0.1885	80/20	0.1885
961611	AG1-000B C	7.5214	80/20	7.5214
961681	AG1-008 C	3.0409	Adder	6.75
961711	AG1-011	16.3520	80/20	16.3520
961851	AG1-027 C	6.8190	80/20	6.8190
961931	AG1-036 C	0.2430	Adder	0.54
961941	AG1-037 C	0.0889	Adder	0.2
962271	AG1-075 C O1	10.7050	80/20	10.7050
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.8906	80/20	0.8906
962331	AG1-082 C	0.3557	Adder	0.79
962341	AG1-083 C	0.3557	Adder	0.79
962351	AG1-084 C	0.3080	Adder	0.68
962361	AG1-085 C	0.3080	Adder	0.68
962571	AG1-106 C	2.6564	80/20	2.6564
963041	AG1-153 C	0.8277	Adder	1.84
963111	AG1-160 C	0.8397	Adder	1.86
963221	AG1-171 C	1.2952	80/20	1.2952
963231	AG1-172 C	1.2952	80/20	1.2952
963241	AG1-173 C	1.2952	80/20	1.2952
963251	AG1-174 C	1.2952	80/20	1.2952
963261	AG1-175 C	1.2952	80/20	1.2952
963291	AG1-178 C O1	9.1403	Adder	20.29
963301	AG1-179 C	1.0536	Adder	2.34
963311	AG1-180	0.5133	Adder	1.14
963351	AG1-184 O1	4.9243	Adder	10.93
964491	AG1-312 C O1	3.2282	Adder	7.17
964501	AG1-313 C O1	0.8475	Adder	1.88
964801	AG1-343 C	1.0867	Adder	2.41
965291	AG1-394 C	0.3738	Adder	0.83

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
965451	AG1-413 C O1	1.1737	Adder	2.61
965601	AG1-428 C O1	0.8796	Adder	1.95
965631	AG1-431	7.3957	Adder	16.42
965691	AG1-437 C O1	1.7037	Adder	3.78
965701	AG1-438 C O1	1.7037	Adder	3.78
965741	AG1-442 O1	0.9938	Adder	2.21
965751	AG1-443 O1	0.9938	Adder	2.21
965811	AG1-449	3.4686	Adder	7.7
966491	AG1-518 O1	1.3866	Adder	3.08
966611	AG1-531 C	0.9927	Adder	2.2
966621	AG1-532 C	0.6858	80/20	0.6858
966731	AG1-544 C	5.1058	80/20	5.1058
966741	AG1-545 C	1.6929	80/20	1.6929
966811	AG1-552 C	0.8825	80/20	0.8825
966931	AG1-431A	5.5565	Adder	12.33
WEC	WEC	0.1978	Confirmed LTF	0.1978
LGEE	LGEE	0.4097	Confirmed LTF	0.4097
CPL	CPL	2.5471	Confirmed LTF	2.5471
CBM-W2	CBM-W2	9.5424	Confirmed LTF	9.5424
NY	NY	0.4474	Confirmed LTF	0.4474
TVA	TVA	1.8522	Confirmed LTF	1.8522
SIGE	SIGE	0.1700	Confirmed LTF	0.1700
CBM-S2	CBM-S2	29.7227	Confirmed LTF	29.7227
CBM-S1	CBM-S1	0.4564	Confirmed LTF	0.4564
MEC	MEC	1.2378	Confirmed LTF	1.2378
LAGN	LAGN	2.3013	Confirmed LTF	2.3013
AA2-074	AA2-074	1.6817	LTF	1.6817
CBM-W1	CBM-W1	8.1316	Confirmed LTF	8.1316

11.6.9 Index 9

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
168598982	314287	6CHESTF B	DVP	314260	6VARINA	DVP	1	DVP_P1-2: LN 563	single	984.18	110.61	111.8	DC	15.97

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313506	AB1-173 C OP	3.1055	80/20	3.1055
314314	3LOCKS	0.2000	80/20	0.2000
314435	6SAPONY	0.2483	80/20	0.2483
314572	3EMPORIA	0.2029	80/20	0.2029
314704	3LAWRENC	0.1265	80/20	0.1265
315065	1CHESTF6 (Deactivation : 31/05/2023)	157.0208	80/20	157.0208
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0126	80/20	0.0126
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0126	80/20	0.0126
315076	1HOPPOLC	1.0533	80/20	1.0533
315077	1HOPHCF1	1.6464	80/20	1.6464
315078	1HOPHCF2	1.6464	80/20	1.6464
315079	1HOPHCF3	1.6464	80/20	1.6464
315080	1HOPHCF4	2.4994	80/20	2.4994
315083	1SPRUNCA (Deactivation : 12/01/2021)	2.8328	Adder	3.33
315084	1SPRUNCB (Deactivation : 12/01/2021)	2.8328	Adder	3.33
315116	1SURRY 1	10.4803	80/20	10.4803
315117	1GRAVELC	0.3673	80/20	0.3673
315119	1GRAVEL3	1.0647	80/20	1.0647
315120	1GRAVEL4	1.0783	80/20	1.0783
315121	1GRAVEL5	1.0647	80/20	1.0647
315122	1GRAVEL6	1.0771	80/20	1.0771
315126	1ROARAP2	0.5492	80/20	0.5492
315128	1ROARAP4	0.5240	80/20	0.5240
315136	1ROSEMG1	0.8839	80/20	0.8839
315137	1ROSEMS1	0.5481	80/20	0.5481
315138	1ROSEMG2	0.4143	80/20	0.4143
315139	1GASTONA	1.3091	80/20	1.3091
315141	1GASTONB	1.3091	80/20	1.3091
315293	1DOMTR9	2.0936	Adder	2.46
315294	1DOMTR10	2.5657	Adder	3.02
315607	3AA1-063SOLA	0.5527	80/20	0.5527
316033	AB2-134 C	1.1304	80/20	1.1304
316083	AB2-161 C (Suspended)	2.3374	80/20	2.3374
316087	AB2-174 C	0.5198	80/20	0.5198
316096	AB2-100 C1	0.4933	80/20	0.4933
316098	AB2-100 C2	0.4933	80/20	0.4933
316103	AB2-015 C	3.4445	80/20	3.4445

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316108	AB2-160 C (Suspended)	3.8535	80/20	3.8535
316129	AC1-054 C	2.2540	Adder	2.65
316132	AB2-190 C	11.7734	80/20	11.7734
316140	AB2-099 C (Suspended)	0.1933	Adder	0.23
316258	AE1-162 C	0.1353	80/20	0.1353
923991	AB2-040 C O1	3.3823	80/20	3.3823
926070	AC1-086 C	9.3307	80/20	9.3307
926201	AC1-098 C	2.0020	Adder	2.36
926211	AC1-099 C	0.6709	Adder	0.79
927145	AC1-208 C	2.9657	Adder	3.49
927225	AC1-216 C	0.8629	80/20	0.8629
932044	AC2-012 C	2.9065	Adder	3.42
932581	AC2-078 C O1	2.8436	80/20	2.8436
932591	AC2-079 C O1	3.1774	80/20	3.1774
932631	AC2-084 C	2.8539	Adder	3.36
933991	AD1-023 C	4.0849	Adder	4.81
934014	AD1-025 C	9.4002	80/20	9.4002
934061	AD1-033 C	2.0956	Adder	2.47
934331	AD1-057 C O1	3.3811	Adder	3.98
934521	AD1-076 C	16.7128	Adder	19.66
934575	AD1-082 C	5.3268	80/20	5.3268
935164	AD1-151 C	9.4608	80/20	9.4608
936041	AD2-007 C	0.4491	80/20	0.4491
936051	AD2-008 C	1.6366	80/20	1.6366
936401	AD2-051 C O1	2.8363	Adder	3.34
936661	AD2-085 C	1.6719	80/20	1.6719
936761	AD2-097 C	0.5373	Adder	0.63
937221	AD2-160 C O1	1.6419	Adder	1.93
938494	AE1-068_C1	8.5011	Adder	10.0
938497	AE1-068_C2	8.5011	Adder	10.0
938504	AE1-069_C1	6.4788	Adder	7.62
938507	AE1-069_C2	6.9857	Adder	8.22
938535	AE1-072 C	4.9749	Adder	5.85
938634	AE1-085 C	6.3085	80/20	6.3085
938771	AE1-103 C	1.4524	80/20	1.4524
939195	AE1-149 C	8.0064	80/20	8.0064
939414	AE1-173_C1	8.7893	Adder	10.34
939415	AE1-173_C2	7.5337	Adder	8.86
939416	AE1-173_C3	8.7893	Adder	10.34
940061	AE2-000BC O1	7.2096	80/20	7.2096
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	49.0351	Adder	57.69
940431	AE2-027 C O1	6.5470	80/20	6.5470
940471	AE2-031 C	9.2526	Adder	10.89
940481	AE2-033 C	9.9066	80/20	9.9066
940491	AE2-034 C	2.1784	Adder	2.56
940541	AE2-040	1.7903	80/20	1.7903
940641	AE2-051 C O1	4.7958	Adder	5.64
940651	AE2-052	2.6688	80/20	2.6688
940891	AE2-078 C	0.9776	80/20	0.9776
940901	AE2-079 C	0.9776	80/20	0.9776
941031	AE2-094 C	11.1325	Adder	13.1

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941101	AE2-104 C O1	1.3219	80/20	1.3219
941281	AE2-122 C O1	8.0026	Adder	9.41
941291	AE2-123 C O1	8.2242	Adder	9.68
941301	AE2-124 C O1	7.4687	Adder	8.79
941501	AE2-147 C	4.6206	Adder	5.44
941591	AE2-156 O1	5.0864	Adder	5.98
942001	AE2-212 C	2.3497	80/20	2.3497
942131	AE2-225 C	0.6231	Adder	0.73
942161	AE2-228 C	2.6681	80/20	2.6681
942171	AE2-229 C	0.4673	Adder	0.55
942341	AE2-247 C	0.7267	80/20	0.7267
942371	AE2-250 C O1	6.8450	80/20	6.8450
942401	AE2-253 C	1.7269	Adder	2.03
942471	AE2-260 C O1	7.9028	80/20	7.9028
942551	AE2-270	15.3270	80/20	15.3270
942931	AE2-313 C	10.0023	Adder	11.77
943171	AE2-346 C	0.4638	Adder	0.55
943461	AF1-017 C	0.6575	80/20	0.6575
943611	AF1-032 C	0.5089	Adder	0.6
943621	AF1-033 C	0.9776	80/20	0.9776
943911	AF1-059	5.3990	Adder	6.35
944011	AF1-069 C	3.6374	Adder	4.28
944641	AF1-129	131.7576	80/20	131.7576
944871	AF1-152 C	1.5402	Adder	1.81
945711	AF1-236 C O1	23.8484	Adder	28.06
946011	AF1-266	8.2926	80/20	8.2926
946261	AF1-291 C	2.6858	80/20	2.6858
946281	AF1-292 C	0.7377	80/20	0.7377
957491	AF2-043 C	0.6231	Adder	0.73
957521	AF2-046 C	5.6522	Adder	6.65
957531	AF2-047 C	5.1763	Adder	6.09
957631	AF2-057	1.0198	Adder	1.2
957711	AF2-065 C	7.8168	80/20	7.8168
957821	AF2-076 C	1.5632	Adder	1.84
957871	AF2-081 C	2.8084	Adder	3.3
958141	AF2-108	1.6576	80/20	1.6576
958161	AF2-110 C	0.5450	80/20	0.5450
959511	AF2-242 C	2.2392	Adder	2.63
959651	AF2-256 C	0.6670	80/20	0.6670
959661	AF2-257 C	0.6715	80/20	0.6715
959671	AF2-258 C	0.5874	80/20	0.5874
959681	AF2-259 C	2.4864	80/20	2.4864
960081	AF2-299 C	1.2434	80/20	1.2434
961091	AF2-400 C	0.1860	80/20	0.1860
961611	AG1-000B C	7.4164	80/20	7.4164
961681	AG1-008 C	3.0017	Adder	6.66
961711	AG1-011	15.9664	80/20	15.9664
961851	AG1-027 C	6.7224	80/20	6.7224
961931	AG1-036 C	0.2399	Adder	0.53
961941	AG1-037 C	0.0878	Adder	0.19
962271	AG1-075 C O1	11.8140	80/20	11.8140

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.8887	80/20	0.8887
962331	AG1-082 C	0.3512	Adder	0.78
962341	AG1-083 C	0.3512	Adder	0.78
962351	AG1-084 C	0.3041	Adder	0.68
962361	AG1-085 C	0.3041	Adder	0.68
962571	AG1-106 C	2.5948	80/20	2.5948
963041	AG1-153 C	0.8210	Adder	1.82
963111	AG1-160 C	0.8317	Adder	1.85
963221	AG1-171 C	1.2614	80/20	1.2614
963231	AG1-172 C	1.2614	80/20	1.2614
963241	AG1-173 C	1.2614	80/20	1.2614
963251	AG1-174 C	1.2614	80/20	1.2614
963261	AG1-175 C	1.2614	80/20	1.2614
963291	AG1-178 C O1	9.0130	Adder	20.01
963301	AG1-179 C	2.3555	80/20	2.3555
963311	AG1-180	1.1477	80/20	1.1477
963351	AG1-184 O1	4.8557	Adder	10.78
963821	AG1-235 C O1	3.5724	Adder	7.93
964491	AG1-312 C O1	3.1863	Adder	7.07
964501	AG1-313 C O1	0.8370	Adder	1.86
964801	AG1-343 C	1.0727	Adder	2.38
964951	AG1-359 O1	3.9606	Adder	8.79
965001	AG1-364 C O1	1.0787	Adder	2.39
965181	AG1-383 C	0.4081	Adder	0.91
965291	AG1-394 C	0.3690	Adder	0.82
965451	AG1-413 C O1	1.2029	Adder	2.67
965601	AG1-428 C O1	1.9664	80/20	1.9664
965631	AG1-431	7.3177	Adder	16.24
965691	AG1-437 C O1	1.6832	Adder	3.74
965701	AG1-438 C O1	1.6832	Adder	3.74
965741	AG1-442 O1	0.9818	Adder	2.18
965751	AG1-443 O1	0.9818	Adder	2.18
965811	AG1-449	3.4384	Adder	7.63
966361	AG1-505 C	2.3990	Adder	5.33
966371	AG1-506 C	2.3990	Adder	5.33
966491	AG1-518 O1	1.3761	Adder	3.05
966611	AG1-531 C	1.0165	Adder	2.26
966621	AG1-532 C	0.6714	80/20	0.6714
966731	AG1-544 C	4.9269	80/20	4.9269
966741	AG1-545 C	1.6339	80/20	1.6339
966751	AG1-546 C	2.6651	Adder	5.92
966801	AG1-551 C	0.3651	Adder	0.81
966811	AG1-552 C	0.8719	80/20	0.8719
966931	AG1-431A	5.4979	Adder	12.2
WEC	WEC	0.1972	Confirmed LTF	0.1972
LGEE	LGEE	0.4090	Confirmed LTF	0.4090
CPL	CPL	2.5573	Confirmed LTF	2.5573
CBM-W2	CBM-W2	9.5514	Confirmed LTF	9.5514
NY	NY	0.4568	Confirmed LTF	0.4568
TVA	TVA	1.8564	Confirmed LTF	1.8564
SIGE	SIGE	0.1720	Confirmed LTF	0.1720

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S2	CBM-S2	29.8480	Confirmed LTF	29.8480
CBM-S1	CBM-S1	0.4571	Confirmed LTF	0.4571
MEC	MEC	1.2378	Confirmed LTF	1.2378
LAGN	LAGN	2.3065	Confirmed LTF	2.3065
AA2-074	AA2-074	1.6884	LTF	1.6884
CBM-W1	CBM-W1	8.1036	Confirmed LTF	8.1036

11.6.10 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
163066625	314303	6HOPEWLL	DVP	314286	6CHESTF A	DVP	1	DVP_P7-1: LN 212-240-D	tower	549.0	182.83	195.91	DC	71.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314314	3LOCKS	0.1627	50/50	0.1627
314331	6POE	1.6284	50/50	1.6284
315065	1CHESTF6 (Deactivation : 31/05/2023)	121.9427	50/50	121.9427
315073	1STONECA	17.2239	50/50	17.2239
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0449	50/50	0.0449
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0449	50/50	0.0449
315076	1HOPPOLC	3.7577	50/50	3.7577
315077	1HOPHCF1	5.8736	50/50	5.8736
315078	1HOPHCF2	5.8736	50/50	5.8736
315079	1HOPHCF3	5.8736	50/50	5.8736
315080	1HOPHCF4	8.9165	50/50	8.9165
316033	AB2-134 C	5.0810	50/50	5.0810
316083	AB2-161 C (Suspended)	2.5509	50/50	2.5509
316084	AB2-161 E (Suspended)	4.1621	50/50	4.1621
316108	AB2-160 C (Suspended)	3.1345	50/50	3.1345
316109	AB2-160 E (Suspended)	5.1143	50/50	5.1143
316132	AB2-190 C	50.2365	50/50	50.2365
924814	AB2-134 E	31.6669	50/50	31.6669
925332	AB2-190 E	21.5299	50/50	21.5299
927225	AC1-216 C	3.8784	50/50	3.8784
927226	AC1-216 E	19.3321	50/50	19.3321
932581	AC2-078 C O1	3.1396	50/50	3.1396
932582	AC2-078 E O1	5.1224	50/50	5.1224
934014	AD1-025 C	42.2525	50/50	42.2525
934015	AD1-025 E	25.0285	50/50	25.0285
934575	AD1-082 C	5.8135	50/50	5.8135
934576	AD1-082 E	3.3162	50/50	3.3162
935164	AD1-151 C	40.3686	50/50	40.3686
935165	AD1-151 E	26.9124	50/50	26.9124
936041	AD2-007 C	2.0184	50/50	2.0184
936042	AD2-007 E	1.3905	50/50	1.3905
936051	AD2-008 C	7.3561	50/50	7.3561
936052	AD2-008 E	16.0129	50/50	16.0129
938634	AE1-085 C	7.0310	50/50	7.0310
938635	AE1-085 E	3.5155	50/50	3.5155
939195	AE1-149 C	9.3186	50/50	9.3186
939196	AE1-149 E	6.2124	50/50	6.2124
940061	AE2-000BC O1	7.7088	50/50	7.7088

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940062	AE2-000BE O1	5.1392	50/50	5.1392
940651	AE2-052	3.1062	50/50	3.1062
942001	AE2-212 C	1.8040	50/50	1.8040
942002	AE2-212 E	1.2026	50/50	1.2026
942151	AE2-227 C	-1.6043	Adder	-1.89
942161	AE2-228 C	2.0668	50/50	2.0668
942162	AE2-228 E	1.3778	50/50	1.3778
942371	AE2-250 C O1	5.5679	50/50	5.5679
942372	AE2-250 E O1	2.9386	50/50	2.9386
942551	AE2-270	67.2810	50/50	67.2810
944641	AF1-129	102.3233	50/50	102.3233
946261	AF1-291 C	2.0962	50/50	2.0962
946262	AF1-291 E	1.3974	50/50	1.3974
957711	AF2-065 C	34.3133	50/50	34.3133
957712	AF2-065 E	32.9677	50/50	32.9677
958141	AF2-108	1.2553	50/50	1.2553
959641	AF2-255 C	-0.4011	Adder	-0.47
959651	AF2-256 C	0.5167	50/50	0.5167
959652	AF2-256 E	0.3445	50/50	0.3445
959661	AF2-257 C	0.5240	50/50	0.5240
959662	AF2-257 E	0.3494	50/50	0.3494
959671	AF2-258 C	0.4510	50/50	0.4510
959672	AF2-258 E	0.3007	50/50	0.3007
959681	AF2-259 C	1.8830	50/50	1.8830
959682	AF2-259 E	1.2553	50/50	1.2553
961611	AG1-000B C	39.9201	50/50	39.9201
961711	AG1-011	71.7664	50/50	71.7664
962271	AG1-075 C O1	9.6099	50/50	9.6099
962272	AG1-075 E O1	5.8566	50/50	5.8566
963221	AG1-171 C	5.3825	50/50	5.3825
963222	AG1-171 E	3.5883	50/50	3.5883
963231	AG1-172 C	5.3825	50/50	5.3825
963232	AG1-172 E	3.5883	50/50	3.5883
963241	AG1-173 C	5.3825	50/50	5.3825
963242	AG1-173 E	3.5883	50/50	3.5883
963251	AG1-174 C	5.3825	50/50	5.3825
963252	AG1-174 E	3.5883	50/50	3.5883
963261	AG1-175 C	5.3825	50/50	5.3825
963262	AG1-175 E	3.5883	50/50	3.5883
966731	AG1-544 C	5.4912	50/50	5.4912
966732	AG1-544 E	2.9460	50/50	2.9460
966741	AG1-545 C	1.8129	50/50	1.8129
966742	AG1-545 E	0.9719	50/50	0.9719
WEC	WEC	0.0554	Confirmed LTF	0.0554
LGEE	LGEE	0.1156	Confirmed LTF	0.1156
CPL	CPL	0.8463	Confirmed LTF	0.8463
CBM-W2	CBM-W2	2.8851	Confirmed LTF	2.8851
NY	NY	0.1587	Confirmed LTF	0.1587
TVA	TVA	0.5712	Confirmed LTF	0.5712
O-066	O-066	2.1536	Confirmed LTF	2.1536
SIGE	SIGE	0.0549	Confirmed LTF	0.0549
CBM-S2	CBM-S2	9.6674	Confirmed LTF	9.6674

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-S1	CBM-S1	0.1395	Confirmed LTF	0.1395
G-007	G-007	0.3370	Confirmed LTF	0.3370
MEC	MEC	0.3607	Confirmed LTF	0.3607
LAGN	LAGN	0.7105	Confirmed LTF	0.7105
CBM-W1	CBM-W1	2.2572	Confirmed LTF	2.2572

11.6.11 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
168598772	314303	6HOPEWLL	DVP	314287	6CHESTF B	DVP	1	DVP_P1-2: LN 228	single	449.32	155.37	169.0	DC	62.04

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314421	6WINCHST	0.0650	80/20	0.0650
314507	3THOMPSN	0.1637	80/20	0.1637
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0566	80/20	0.0566
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0566	80/20	0.0566
315076	1HOPPOLC	4.7446	80/20	4.7446
315077	1HOPHCF1	7.4163	80/20	7.4163
315078	1HOPHCF2	7.4163	80/20	7.4163
315079	1HOPHCF3	7.4163	80/20	7.4163
315080	1HOPHCF4	11.2584	80/20	11.2584
315098	1CHESPKA	0.2164	80/20	0.2164
315099	1CHESPKB (Deactivation : 31/05/2019)	1.5000	80/20	1.5000
315110	1ELIZAR3	1.5591	80/20	1.5591
315116	1SURRY 1	32.2643	80/20	32.2643
315117	1GRAVELC	1.1307	80/20	1.1307
315119	1GRAVEL3	3.2776	80/20	3.2776
315120	1GRAVEL4	3.3196	80/20	3.3196
315121	1GRAVEL5	3.2776	80/20	3.2776
315122	1GRAVEL6	3.3158	80/20	3.3158
315260	1GOSPORTA	0.1726	80/20	0.1726
315261	1GOSPORTB	0.2205	80/20	0.2205
315262	1GOSPORTC	0.1871	80/20	0.1871
316033	AB2-134 C	4.3923	80/20	4.3923
316132	AB2-190 C	47.5362	80/20	47.5362
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.1554	80/20	0.1554
316258	AE1-162 C	0.3500	80/20	0.3500
926661	AC1-147 C	0.1830	80/20	0.1830
927225	AC1-216 C	3.3527	80/20	3.3527
932044	AC2-012 C	5.2463	80/20	5.2463
934014	AD1-025 C	36.5251	80/20	36.5251
935111	AD1-144 C	0.1538	80/20	0.1538
935164	AD1-151 C	38.1987	80/20	38.1987
936041	AD2-007 C	1.7448	80/20	1.7448
936051	AD2-008 C	6.3589	80/20	6.3589
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	86.6486	80/20	86.6486
940891	AE2-078 C	2.8954	80/20	2.8954
940901	AE2-079 C	2.8954	80/20	2.8954
941591	AE2-156 O1	9.1170	80/20	9.1170

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942161	AE2-228 C	-1.5594	Adder	-1.83
942551	AE2-270	60.6255	80/20	60.6255
943621	AF1-033 C	2.8954	80/20	2.8954
946261	AF1-291 C	-1.5553	Adder	-1.83
957631	AF2-057	1.8408	80/20	1.8408
957711	AF2-065 C	30.9190	80/20	30.9190
959651	AF2-256 C	-0.3898	Adder	-0.46
961611	AG1-000B C	24.4189	80/20	24.4189
961711	AG1-011	62.0384	80/20	62.0384
962321	AG1-081 C (Withdrawn : 01/15/2021)	2.6322	80/20	2.6322
963221	AG1-171 C	5.0932	80/20	5.0932
963231	AG1-172 C	5.0932	80/20	5.0932
963241	AG1-173 C	5.0932	80/20	5.0932
963251	AG1-174 C	5.0932	80/20	5.0932
963261	AG1-175 C	5.0932	80/20	5.0932
965001	AG1-364 C O1	3.6524	80/20	3.6524
966611	AG1-531 C	5.8658	80/20	5.8658
CPL	CPL	0.6668	Confirmed LTF	0.6668
CBM-W2	CBM-W2	0.2061	Confirmed LTF	0.2061
NY	NY	0.3230	Confirmed LTF	0.3230
PRAIRIE	PRAIRIE	0.1007	Confirmed LTF	0.1007
TVA	TVA	0.1540	Confirmed LTF	0.1540
SIGE	SIGE	0.0541	Confirmed LTF	0.0541
CBM-S2	CBM-S2	6.7234	Confirmed LTF	6.7234
CBM-S1	CBM-S1	0.0258	Confirmed LTF	0.0258
GIBSON	GIBSON	0.0628	Confirmed LTF	0.0628
BLUEG	BLUEG	0.2187	Confirmed LTF	0.2187
TRIMBLE	TRIMBLE	0.0723	Confirmed LTF	0.0723
LAGN	LAGN	0.1890	Confirmed LTF	0.1890

11.6.12 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
168598961	314309	6IRON208	DVP	314338	6SOUWEST	DVP	1	DVP_P1-2: LN 557	single	663.64	119.65	122.03	DC	15.77

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314184	3SHACKLE	0.2534	80/20	0.2534
314309	6IRON208	1.1016	80/20	1.1016
314375	6CORRCTN	0.1902	80/20	0.1902
315060	1CHESTF5 (Deactivation : 31/05/2023)	79.4430	80/20	79.4430
315061	1CHESTG7	4.6804	80/20	4.6804
315062	1CHESTS7	2.1486	80/20	2.1486
315063	1CHESTG8	4.6052	80/20	4.6052
315064	1CHESTS8	2.3707	80/20	2.3707
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0120	80/20	0.0120
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0120	80/20	0.0120
315076	1HOPPOLC	1.0045	80/20	1.0045
315077	1HOPHCF1	1.5701	80/20	1.5701
315078	1HOPHCF2	1.5701	80/20	1.5701
315079	1HOPHCF3	1.5701	80/20	1.5701
315080	1HOPHCF4	2.3835	80/20	2.3835
315116	1SURRY 1	10.8121	80/20	10.8121
315117	1GRAVELC	0.3789	80/20	0.3789
315119	1GRAVEL3	1.0984	80/20	1.0984
315120	1GRAVEL4	1.1124	80/20	1.1124
315121	1GRAVEL5	1.0984	80/20	1.0984
315122	1GRAVEL6	1.1112	80/20	1.1112
316033	AB2-134 C	1.1164	80/20	1.1164
316083	AB2-161 C (Suspended)	0.9549	Adder	1.12
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	21.5300	80/20	21.5300
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	21.5300	80/20	21.5300
316114	AB2-068 ST (Withdrawn : 01/11/2021)	37.2985	80/20	37.2985
316132	AB2-190 C	11.5293	80/20	11.5293
316134	AC1-107 G1	40.4295	80/20	40.4295
316135	AC1-107 G2	40.4295	80/20	40.4295
316136	AC1-107 G3	40.4371	80/20	40.4371
316156	AD2-030 C	0.1626	80/20	0.1626
925863	AC1-065 C	3.3565	80/20	3.3565
926784	AC1-164 C	22.2500	80/20	22.2500
927225	AC1-216 C	0.8521	80/20	0.8521
932044	AC2-012 C	2.8401	Adder	3.34
932581	AC2-078 C O1	1.1483	Adder	1.35

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
932591	AC2-079 C O1	1.5740	Adder	1.85
934014	AD1-025 C	9.2834	80/20	9.2834
934061	AD1-033 C	2.0181	Adder	2.37
934141	AD1-041 C	2.3874	80/20	2.3874
934391	AD1-063 C	0.1194	80/20	0.1194
934575	AD1-082 C	2.1763	Adder	2.56
935164	AD1-151 C	9.2646	80/20	9.2646
936041	AD2-007 C	0.4435	80/20	0.4435
936051	AD2-008 C	1.6162	80/20	1.6162
936591	AD2-074 C	1.9114	Adder	2.25
938634	AE1-085 C	2.5228	Adder	2.97
939195	AE1-149 C	3.0539	Adder	3.59
939245	AE1-155 C	4.3527	Adder	5.12
939431	AE1-175 C	1.0757	80/20	1.0757
939611	AE1-191 C	4.7748	80/20	4.7748
940061	AE2-000BC O1	3.0049	Adder	3.54
940231	AE2-005 C	0.6103	80/20	0.6103
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	47.9247	Adder	56.38
940551	AE2-041	3.3628	80/20	3.3628
940651	AE2-052	1.0180	Adder	1.2
940891	AE2-078 C	1.0549	80/20	1.0549
940901	AE2-079 C	1.0549	80/20	1.0549
941281	AE2-122 C O1	7.7406	Adder	9.11
941291	AE2-123 C O1	7.9549	Adder	9.36
941301	AE2-124 C O1	7.2175	Adder	8.49
941591	AE2-156 O1	4.9734	Adder	5.85
942151	AE2-227 C	5.6234	80/20	5.6234
942551	AE2-270	15.0765	80/20	15.0765
943431	AF1-014 C	0.5782	80/20	0.5782
943471	AF1-018	3.3628	80/20	3.3628
943621	AF1-033 C	1.0549	80/20	1.0549
943741	AF1-042 C	1.0002	Adder	1.18
944631	AF1-128 O1	69.6602	80/20	69.6602
945361	AF1-201 C O1	5.6602	Adder	6.66
957601	AF2-054 C	0.9392	80/20	0.9392
957631	AF2-057	0.9965	Adder	1.17
957711	AF2-065 C	7.6890	80/20	7.6890
957831	AF2-077 C	0.7659	Adder	0.9
958261	AF2-120 C	2.1318	Adder	2.51
959641	AF2-255 C	1.4059	80/20	1.4059
961611	AG1-000B C	7.5650	80/20	7.5650
961711	AG1-011	15.7680	80/20	15.7680
961951	AG1-038 C	0.5859	Adder	1.3
962131	AG1-057	1.6814	80/20	1.6814
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.9590	80/20	0.9590
962531	AG1-102 C	0.2084	Adder	0.46
962861	AG1-135 C	1.1028	Adder	2.45
962961	AG1-145 C	0.9706	80/20	0.9706
962971	AG1-146 C	0.5807	Adder	1.29
962981	AG1-147 C	1.3549	Adder	3.01
963221	AG1-171 C	1.2353	80/20	1.2353

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963231	AG1-172 C	1.2353	80/20	1.2353
963241	AG1-173 C	1.2353	80/20	1.2353
963251	AG1-174 C	1.2353	80/20	1.2353
963261	AG1-175 C	1.2353	80/20	1.2353
963611	AG1-210 C	0.1130	Adder	0.25
964021	AG1-256 C	0.2167	Adder	0.48
964211	AG1-282 C	0.3609	Adder	0.8
965001	AG1-364 C O1	1.0545	Adder	2.34
965231	AG1-388 C	0.3609	Adder	0.8
966611	AG1-531 C	2.7677	80/20	2.7677
966661	AG1-536 C	0.9714	Adder	2.16
966731	AG1-544 C	1.0443	Adder	2.32
966741	AG1-545 C	0.3479	Adder	0.77
WEC	WEC	0.0378	Confirmed LTF	0.0378
LGEE	LGEE	0.0811	Confirmed LTF	0.0811
CPL	CPL	1.2080	Confirmed LTF	1.2080
CBM-W2	CBM-W2	3.0822	Confirmed LTF	3.0822
NY	NY	0.2892	Confirmed LTF	0.2892
TVA	TVA	0.6650	Confirmed LTF	0.6650
SIGE	SIGE	0.0759	Confirmed LTF	0.0759
CBM-S2	CBM-S2	13.3945	Confirmed LTF	13.3945
CBM-S1	CBM-S1	0.1566	Confirmed LTF	0.1566
MEC	MEC	0.3130	Confirmed LTF	0.3130
LAGN	LAGN	0.8278	Confirmed LTF	0.8278
CBM-W1	CBM-W1	1.3599	Confirmed LTF	1.3599

11.6.13 Index 13

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
163441125	314903	8CHCKAHM	DVP	314908	8ELMONT	DVP	1	DVP_P1-2: LN 563	single	2442.12	181.22	181.38	DC	38.11

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.6083	80/20	0.6083
314295	6BIRDNECK	0.0728	80/20	0.0728
314421	6WINCHST	0.2201	80/20	0.2201
314491	3PENDLTN	0.5432	80/20	0.5432
314507	3THOMPSN	0.5459	80/20	0.5459
314638	6ELIZ CT	0.3556	80/20	0.3556
314639	6TANGLEW	0.6491	80/20	0.6491
314643	3O INLET	0.7144	80/20	0.7144
315092	1YORKTN3	39.1963	80/20	39.1963
315098	1CHESPKA	0.7220	80/20	0.7220
315099	1CHESPKB (Deactivation : 31/05/2019)	5.0053	80/20	5.0053
315108	1ELIZAR1	5.3195	80/20	5.3195
315109	1ELIZAR2	5.2271	80/20	5.2271
315110	1ELIZAR3	5.3876	80/20	5.3876
315116	1SURRY 1	36.1526	80/20	36.1526
315120	1GRAVEL4	3.7197	80/20	3.7197
315233	1SURRY 2	48.5856	80/20	48.5856
315260	1GOSPORTA	0.5763	80/20	0.5763
315261	1GOSPORTB	0.7361	80/20	0.7361
315262	1GOSPORTC	0.6247	80/20	0.6247
315293	1DOMTR9	8.4474	Adder	9.94
315294	1DOMTR10	10.3521	Adder	12.18
315603	6AA1-139SOLA	3.7714	80/20	3.7714
315605	6W1-029WIND	1.7838	80/20	1.7838
315611	6Z1-036WIND	1.7276	80/20	1.7276
316103	AB2-015 C	10.8609	Adder	12.78
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	165.2340	80/20	165.2340
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	165.2340	80/20	165.2340
316114	AB2-068 ST (Withdrawn : 01/11/2021)	286.2505	80/20	286.2505
316132	AB2-190 C	21.8808	Adder	25.74
316134	AC1-107 G1	310.2793	80/20	310.2793
316135	AC1-107 G2	310.2793	80/20	310.2793
316136	AC1-107 G3	310.3375	80/20	310.3375
316140	AB2-099 C (Suspended)	0.6942	Adder	0.82
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.4566	80/20	0.4566
316258	AE1-162 C	0.5400	80/20	0.5400
925863	AC1-065 C	8.9827	Adder	10.57

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926661	AC1-147 C	0.6105	80/20	0.6105
926754	AC1-161 C	56.7826	80/20	56.7826
926784	AC1-164 C	50.7130	Adder	59.66
932044	AC2-012 C	17.5064	80/20	17.5064
932591	AC2-079 C O1	6.8775	Adder	8.09
933294	AC2-141 C	56.7826	80/20	56.7826
933731	AC2-196 C	0.4864	80/20	0.4864
933991	AD1-023 C	16.4881	Adder	19.4
934014	AD1-025 C	19.0719	Adder	22.44
934061	AD1-033 C	12.9436	80/20	12.9436
934141	AD1-041 C	6.4875	Adder	7.63
934521	AD1-076 C	69.1001	Adder	81.29
934575	AD1-082 C	0.5273	Adder	0.62
935111	AD1-144 C	0.4519	80/20	0.4519
935164	AD1-151 C	17.5828	Adder	20.69
936041	AD2-007 C	0.9111	Adder	1.07
936051	AD2-008 C	3.3204	Adder	3.91
936401	AD2-051 C O1	10.6005	Adder	12.47
936661	AD2-085 C	4.3566	Adder	5.13
937221	AD2-160 C O1	10.0056	80/20	10.0056
938494	AE1-068_C1	34.5957	Adder	40.7
938497	AE1-068_C2	34.5957	Adder	40.7
938504	AE1-069_C1	26.3658	Adder	31.02
938507	AE1-069_C2	28.4286	Adder	33.45
938535	AE1-072 C	29.9356	80/20	29.9356
938771	AE1-103 C	4.7010	Adder	5.53
939414	AE1-173_C1	48.4949	80/20	48.4949
939415	AE1-173_C2	41.5670	80/20	41.5670
939416	AE1-173_C3	48.4949	80/20	48.4949
939431	AE1-175 C	4.0622	80/20	4.0622
939611	AE1-191 C	12.9749	Adder	15.26
940061	AE2-000BC O1	11.4939	Adder	13.52
940231	AE2-005 C	1.6332	Adder	1.92
940251	AE2-007_O1 (Withdrawn : 12/11/2020)	298.0885	80/20	298.0885
940471	AE2-031 C	37.7130	Adder	44.37
940491	AE2-034 C	9.4119	Adder	11.07
940551	AE2-041	8.8624	Adder	10.43
940641	AE2-051 C O1	25.3584	80/20	25.3584
940891	AE2-078 C	3.6585	80/20	3.6585
940901	AE2-079 C	3.6585	80/20	3.6585
941031	AE2-094 C	45.4213	Adder	53.44
941101	AE2-104 C O1	5.3617	80/20	5.3617
941281	AE2-122 C O1	48.8761	80/20	48.8761
941291	AE2-123 C O1	50.2294	80/20	50.2294
941301	AE2-124 C O1	45.6816	80/20	45.6816
941501	AE2-147 C	26.0919	80/20	26.0919
941591	AE2-156_O1	30.7590	80/20	30.7590
942131	AE2-225 C	3.5741	80/20	3.5741
942171	AE2-229 C	2.6806	80/20	2.6806
942341	AE2-247 C	1.8863	Adder	2.22
942401	AE2-253 C	10.5242	80/20	10.5242

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
942551	AE2-270	29.8924	Adder	35.17
942931	AE2-313 C	40.7636	Adder	47.96
943171	AE2-346 C	1.6661	Adder	1.96
943431	AF1-014 C	1.5473	Adder	1.82
943461	AF1-017 C	1.7067	Adder	2.01
943471	AF1-018	8.8624	Adder	10.43
943611	AF1-032 C	2.9188	80/20	2.9188
943621	AF1-033 C	3.6585	80/20	3.6585
944011	AF1-069 C	14.8409	Adder	17.46
944581	AF1-123 C O1	84.0753	80/20	84.0753
944591	AF1-124 C O1	84.0753	80/20	84.0753
944601	AF1-125 C O1	84.0753	80/20	84.0753
944871	AF1-152 C	8.6973	80/20	8.6973
945361	AF1-201 C O1	26.6814	80/20	26.6814
945711	AF1-236 C O1	103.0384	Adder	121.22
957491	AF2-043 C	3.5741	80/20	3.5741
957521	AF2-046 C	19.9647	Adder	23.49
957531	AF2-047 C	22.3646	Adder	26.31
957601	AF2-054 C	2.6029	Adder	3.06
957631	AF2-057	6.1426	80/20	6.1426
957711	AF2-065 C	15.2451	Adder	17.94
957821	AF2-076 C	8.7747	80/20	8.7747
957831	AF2-077 C	3.4444	80/20	3.4444
957871	AF2-081 C	17.0094	80/20	17.0094
958161	AF2-110 C	2.2104	80/20	2.2104
959511	AF2-242 C	8.5768	Adder	10.09
961091	AF2-400 C	0.5865	Adder	0.69
961611	AG1-000B C	10.5837	Adder	23.49
961681	AG1-008 C	10.6025	Adder	23.53
961711	AG1-011	17.1687	Adder	38.11
961851	AG1-027 C	26.6172	80/20	26.6172
961931	AG1-036 C	0.8549	Adder	1.9
961941	AG1-037 C	0.3154	Adder	0.7
962131	AG1-057	2.3485	Adder	5.21
962321	AG1-081 C (Withdrawn : 01/15/2021)	3.3259	80/20	3.3259
962331	AG1-082 C	1.2615	Adder	2.8
962341	AG1-083 C	1.2615	Adder	2.8
962351	AG1-084 C	1.1000	Adder	2.44
962361	AG1-085 C	1.1000	Adder	2.44
962531	AG1-102 C	1.7681	80/20	1.7681
962961	AG1-145 C	3.6652	80/20	3.6652
962971	AG1-146 C	1.8384	Adder	4.08
962981	AG1-147 C	4.2896	Adder	9.52
963041	AG1-153 C	3.3297	Adder	7.39
963111	AG1-160 C	3.3798	Adder	7.5
963221	AG1-171 C	1.2425	Adder	2.76
963231	AG1-172 C	1.2425	Adder	2.76
963241	AG1-173 C	1.2425	Adder	2.76
963251	AG1-174 C	1.2425	Adder	2.76
963261	AG1-175 C	1.2425	Adder	2.76
963291	AG1-178 C O1	93.1181	80/20	93.1181

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
963351	AG1-184 O1	50.1669	80/20	50.1669
963821	AG1-235 C O1	41.4126	80/20	41.4126
964491	AG1-312 C O1	12.1221	Adder	26.91
964801	AG1-343 C	3.7374	Adder	8.3
964931	AG1-357 C	12.1894	Adder	27.06
964951	AG1-359 O1	46.2435	80/20	46.2435
965001	AG1-364 C O1	12.3004	80/20	12.3004
965181	AG1-383 C	4.7390	80/20	4.7390
965291	AG1-394 C	1.2828	Adder	2.85
965631	AG1-431	31.6165	Adder	70.18
965691	AG1-437 C O1	6.6656	Adder	14.8
965701	AG1-438 C O1	6.6656	Adder	14.8
965741	AG1-442 O1	3.8883	Adder	8.63
965751	AG1-443 O1	3.8883	Adder	8.63
965811	AG1-449	14.0145	Adder	31.11
966361	AG1-505 C	9.7134	Adder	21.56
966371	AG1-506 C	9.7134	Adder	21.56
966491	AG1-518 O1	14.8920	80/20	14.8920
966611	AG1-531 C	10.5001	80/20	10.5001
966931	AG1-431A	23.7540	Adder	52.73
WEC	WEC	0.5714	Confirmed LTF	0.5714
LGEE	LGEE	1.1894	Confirmed LTF	1.1894
CPL	CPL	9.3434	Confirmed LTF	9.3434
CBM-W2	CBM-W2	31.1539	Confirmed LTF	31.1539
NY	NY	1.8006	Confirmed LTF	1.8006
TVA	TVA	6.2356	Confirmed LTF	6.2356
SIGE	SIGE	0.5991	Confirmed LTF	0.5991
CBM-S2	CBM-S2	107.7304	Confirmed LTF	107.7304
CBM-S1	CBM-S1	1.5158	Confirmed LTF	1.5158
MEC	MEC	3.7945	Confirmed LTF	3.7945
LAGN	LAGN	7.7578	Confirmed LTF	7.7578
AA2-074	AA2-074	6.1659	LTF	6.1659
CBM-W1	CBM-W1	22.9648	Confirmed LTF	22.9648

11.6.14 Index 14

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
163441092	314908	8ELMONT	DVP	314911	8LADYSMITH	DVP	1	DVP_P1-2: LN 576	single	2442.12	218.57	218.73	DC	50.9

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.2111	80/20	0.2111
314236	6NRTHEST	0.3205	80/20	0.3205
314241	6OLDCHRC	1.4851	80/20	1.4851
314250	6ROCKVILLE	0.5532	80/20	0.5532
314309	6IRON208	0.7631	80/20	0.7631
314421	6WINCHST	0.2285	80/20	0.2285
315058	1CHESTF3 (Deactivation : 13/12/2018)	32.0440	80/20	32.0440
315059	1CHESTF4 (Deactivation : 13/12/2018)	51.9433	80/20	51.9433
315060	1CHESTF5 (Deactivation : 31/05/2023)	114.1420	80/20	114.1420
315061	1CHESTG7	6.7247	80/20	6.7247
315062	1CHESTS7	3.0871	80/20	3.0871
315063	1CHESTG8	6.6167	80/20	6.6167
315064	1CHESTS8	3.4061	80/20	3.4061
315065	1CHESTF6 (Deactivation : 31/05/2023)	182.6276	Adder	214.86
315067	1DARBY 1	4.4333	80/20	4.4333
315068	1DARBY 2	4.4384	80/20	4.4384
315069	1DARBY 3	4.4540	80/20	4.4540
315070	1DARBY 4	4.4592	80/20	4.4592
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0320	80/20	0.0320
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0320	80/20	0.0320
315076	1HOPPOLC	2.6791	80/20	2.6791
315077	1HOPHCF1	4.1877	80/20	4.1877
315078	1HOPHCF2	4.1877	80/20	4.1877
315079	1HOPHCF3	4.1877	80/20	4.1877
315080	1HOPHCF4	6.3573	80/20	6.3573
315083	1SPRUNCA (Deactivation : 12/01/2021)	15.5433	Adder	18.29
315084	1SPRUNCB (Deactivation : 12/01/2021)	15.5433	Adder	18.29
315092	1YORKTN3	40.1074	80/20	40.1074
315233	1SURRY 2	43.8786	80/20	43.8786
316033	AB2-134 C	3.6034	80/20	3.6034
316075	AC2-137 C	0.5978	80/20	0.5978
316083	AB2-161 C (Suspended)	4.9845	Adder	5.86
316103	AB2-015 C	12.2332	Adder	14.39
316108	AB2-160 C (Suspended)	8.0636	Adder	9.49

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	112.2311	80/20	112.2311
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	112.2311	80/20	112.2311
316114	AB2-068 ST (Withdrawn : 01/11/2021)	194.4286	80/20	194.4286
316132	AB2-190 C	35.6664	80/20	35.6664
316134	AC1-107 G1	210.7495	80/20	210.7495
316135	AC1-107 G2	210.7495	80/20	210.7495
316136	AC1-107 G3	210.7890	80/20	210.7890
925863	AC1-065 C	10.6892	Adder	12.58
926754	AC1-161 C	53.7550	80/20	53.7550
926784	AC1-164 C	73.8929	80/20	73.8929
927044	AC1-191 C	14.0019	Adder	16.47
927225	AC1-216 C	2.7506	80/20	2.7506
932044	AC2-012 C	15.1881	Adder	17.87
932501	AC2-070 C	0.4880	80/20	0.4880
932581	AC2-078 C O1	5.9830	Adder	7.04
932591	AC2-079 C O1	8.4424	Adder	9.93
933294	AC2-141 C	53.7550	80/20	53.7550
934014	AD1-025 C	29.9650	80/20	29.9650
934061	AD1-033 C	11.1488	Adder	13.12
934141	AD1-041 C	7.5903	Adder	8.93
934575	AD1-082 C	11.3595	Adder	13.36
935164	AD1-151 C	28.6605	80/20	28.6605
936041	AD2-007 C	1.4315	80/20	1.4315
936051	AD2-008 C	5.2168	80/20	5.2168
936151	AD2-021	0.0682	80/20	0.0682
936661	AD2-085 C	5.0562	Adder	5.95
936761	AD2-097 C	2.9479	Adder	3.47
937221	AD2-160 C O1	8.6556	Adder	10.18
938535	AE1-072 C	26.0023	Adder	30.59
938634	AE1-085 C	13.1232	Adder	15.44
938771	AE1-103 C	5.2299	Adder	6.15
939195	AE1-149 C	15.7651	Adder	18.55
939414	AE1-173_C1	42.9257	Adder	50.5
939415	AE1-173_C2	36.7934	Adder	43.29
939416	AE1-173_C3	42.9257	Adder	50.5
939431	AE1-175 C	4.3577	80/20	4.3577
939611	AE1-191 C	15.1807	Adder	17.86
940061	AE2-000BC O1	15.7340	Adder	18.51
940231	AE2-005 C	1.9435	Adder	2.29
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	257.8906	Adder	303.4
940431	AE2-027 C O1	19.2994	Adder	22.71
940481	AE2-033 C	21.7350	Adder	25.57
940491	AE2-034 C	10.2123	Adder	12.01
940541	AE2-040	3.8606	Adder	4.54
940551	AE2-041	10.3397	Adder	12.16
940641	AE2-051 C O1	22.6991	Adder	26.7
940651	AE2-052	5.2550	Adder	6.18
940891	AE2-078 C	4.1910	80/20	4.1910
940901	AE2-079 C	4.1910	80/20	4.1910

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941031	AE2-094 C	49.8737	Adder	58.67
941101	AE2-104 C O1	4.9241	Adder	5.79
941281	AE2-122 C O1	42.2321	Adder	49.68
941291	AE2-123 C O1	43.4015	Adder	51.06
941301	AE2-124 C O1	39.4579	Adder	46.42
941501	AE2-147 C	23.1382	Adder	27.22
941581	AE2-155 C	0.1857	80/20	0.1857
941591	AE2-156 O1	26.6526	Adder	31.36
942001	AE2-212 C	3.1840	Adder	3.75
942131	AE2-225 C	3.1468	Adder	3.7
942151	AE2-227 C	3.8953	80/20	3.8953
942161	AE2-228 C	3.2195	Adder	3.79
942171	AE2-229 C	2.3601	Adder	2.78
942341	AE2-247 C	2.1916	Adder	2.58
942371	AE2-250 C O1	14.3236	Adder	16.85
942401	AE2-253 C	9.1042	Adder	10.71
942551	AE2-270	47.7375	80/20	47.7375
943431	AF1-014 C	1.8412	Adder	2.17
943461	AF1-017 C	1.9829	Adder	2.33
943471	AF1-018	10.3397	Adder	12.16
943611	AF1-032 C	2.5699	Adder	3.02
943621	AF1-033 C	4.1910	80/20	4.1910
944011	AF1-069 C	16.2956	Adder	19.17
944581	AF1-123 C O1	71.3344	Adder	83.92
944591	AF1-124 C O1	71.3344	Adder	83.92
944601	AF1-125 C O1	71.3344	Adder	83.92
944631	AF1-128 O1	100.0862	80/20	100.0862
944641	AF1-129	153.2445	Adder	180.29
944871	AF1-152 C	7.7127	Adder	9.07
945361	AF1-201 C O1	23.9575	Adder	28.19
945711	AF1-236 C O1	111.8008	Adder	131.53
946011	AF1-266	18.1939	Adder	21.4
946261	AF1-291 C	3.2203	Adder	3.79
957491	AF2-043 C	3.1468	Adder	3.7
957531	AF2-047 C	24.2665	Adder	28.55
957601	AF2-054 C	2.9790	Adder	3.5
957631	AF2-057	5.3292	Adder	6.27
957711	AF2-065 C	24.3461	80/20	24.3461
957821	AF2-076 C	7.7829	Adder	9.16
957831	AF2-077 C	3.1471	Adder	3.7
957871	AF2-081 C	14.7441	Adder	17.35
957911	AF2-085	5.0310	Adder	5.92
958141	AF2-108	2.6198	Adder	3.08
958161	AF2-110 C	2.0300	Adder	2.39
959641	AF2-255 C	0.9738	80/20	0.9738
959651	AF2-256 C	0.8049	Adder	0.95
959661	AF2-257 C	0.8051	Adder	0.95
959671	AF2-258 C	0.7960	Adder	0.94
959681	AF2-259 C	3.9297	Adder	4.62
961091	AF2-400 C	0.6606	Adder	0.78
961611	AG1-000B C	12.7108	Adder	28.21
961711	AG1-011	50.8960	80/20	50.8960

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
961851	AG1-027 C	13.0994	Adder	29.08
962131	AG1-057	2.7400	Adder	6.08
962191	AG1-064 C	2.5838	80/20	2.5838
962201	AG1-065 C	2.5838	80/20	2.5838
962271	AG1-075 C O1	13.1023	Adder	29.08
962321	AG1-081 C (Withdrawn : 01/15/2021)	3.8100	80/20	3.8100
962531	AG1-102 C	0.8562	Adder	1.9
962961	AG1-145 C	3.9318	80/20	3.9318
963221	AG1-171 C	3.8214	80/20	3.8214
963231	AG1-172 C	3.8214	80/20	3.8214
963241	AG1-173 C	3.8214	80/20	3.8214
963251	AG1-174 C	3.8214	80/20	3.8214
963261	AG1-175 C	3.8214	80/20	3.8214
963291	AG1-178 C O1	43.7239	Adder	97.06
963351	AG1-184 O1	23.5560	Adder	52.29
963821	AG1-235 C O1	18.9380	Adder	42.04
964951	AG1-359 O1	21.0983	Adder	46.83
965001	AG1-364 C O1	5.6502	Adder	12.54
965181	AG1-383 C	2.1659	Adder	4.81
965631	AG1-431	34.3052	Adder	76.15
965811	AG1-449	0.7051	Adder	1.57
966491	AG1-518 O1	6.9492	Adder	15.43
966611	AG1-531 C	11.4998	80/20	11.4998
966731	AG1-544 C	5.4321	Adder	12.06
966741	AG1-545 C	1.8110	Adder	4.02
966871	AG1-558 C	1.6676	Adder	3.7
966931	AG1-431A	25.7740	Adder	57.21
WEC	WEC	1.7334	Confirmed LTF	1.7334
LGEE	LGEE	3.6649	Confirmed LTF	3.6649
CPL	CPL	12.6624	Confirmed LTF	12.6624
CBM-W2	CBM-W2	69.0010	Confirmed LTF	69.0010
NY	NY	3.9622	Confirmed LTF	3.9622
TVA	TVA	12.6700	Confirmed LTF	12.6700
SIGE	SIGE	1.5098	Confirmed LTF	1.5098
CBM-S2	CBM-S2	160.4524	Confirmed LTF	160.4524
CBM-S1	CBM-S1	3.2167	Confirmed LTF	3.2167
MEC	MEC	9.9678	Confirmed LTF	9.9678
LAGN	LAGN	15.5628	Confirmed LTF	15.5628
AA2-074	AA2-074	8.3718	LTF	8.3718
CBM-W1	CBM-W1	72.3572	Confirmed LTF	72.3572

11.6.15 Index 15

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
163441171	314911	8LADYSMITH	DVP	314922	8POSSUM	DVP	1	DVP_P1-2: LN 581	single	2442.12	145.72	146.19	DC	27.22

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314229	6MT RD221	0.1163	80/20	0.1163
314236	6NRTHEST	0.1751	80/20	0.1751
314241	6OLDCHRC	0.8018	80/20	0.8018
314250	6ROCKVILLE	0.3084	80/20	0.3084
315037	1LDYSMT1	5.0764	80/20	5.0764
315038	1LDYSMT2	5.0764	80/20	5.0764
315039	1LDYSMT3	4.8867	80/20	4.8867
315040	1LDYSMT4	4.8959	80/20	4.8959
315041	1LDYSMT5	4.9112	80/20	4.9112
315043	1FOUR RIVERA	3.2042	80/20	3.2042
315044	1FOUR RIVERB	3.2042	80/20	3.2042
315045	1FOUR RIVERC	3.9162	80/20	3.9162
315046	1FOUR RIVERD	3.2042	80/20	3.2042
315047	1FOUR RIVERE	3.2042	80/20	3.2042
315048	1FOUR RIVERF	3.9162	80/20	3.9162
315051	1AA1-145 CT1	5.0437	80/20	5.0437
315052	1AA1-145 CT2	5.0437	80/20	5.0437
315058	1CHESTF3 (Deactivation : 13/12/2018)	14.8512	Adder	17.47
315059	1CHESTF4 (Deactivation : 13/12/2018)	24.0738	Adder	28.32
315060	1CHESTF5 (Deactivation : 31/05/2023)	52.1518	Adder	61.36
315065	1CHESTF6 (Deactivation : 31/05/2023)	99.4552	Adder	117.01
315067	1DARBY 1	2.4108	80/20	2.4108
315068	1DARBY 2	2.4136	80/20	2.4136
315069	1DARBY 3	2.4221	80/20	2.4221
315070	1DARBY 4	2.4249	80/20	2.4249
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0147	Adder	0.02
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0147	Adder	0.02
315083	1SPRUNCA (Deactivation : 12/01/2021)	8.5693	Adder	10.08
315084	1SPRUNCB (Deactivation : 12/01/2021)	8.5693	Adder	10.08
315225	1N ANNA1	26.4840	80/20	26.4840
315226	1N ANNA2	26.4952	80/20	26.4952
316075	AC2-137 C	0.3194	80/20	0.3194
316083	AB2-161 C (Suspended)	2.6853	Adder	3.16
316108	AB2-160 C (Suspended)	4.3840	Adder	5.16

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	53.4374	80/20	53.4374
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	53.4374	80/20	53.4374
316114	AB2-068 ST (Withdrawn : 01/11/2021)	92.5747	80/20	92.5747
316132	AB2-190 C	16.2392	Adder	19.1
316134	AC1-107 G1	100.3457	80/20	100.3457
316135	AC1-107 G2	100.3457	80/20	100.3457
316136	AC1-107 G3	100.3645	80/20	100.3645
925863	AC1-065 C	5.9452	Adder	6.99
926754	AC1-161 C	23.8831	Adder	28.1
926784	AC1-164 C	39.0661	80/20	39.0661
927044	AC1-191 C	7.9455	Adder	9.35
932044	AC2-012 C	8.0093	Adder	9.42
932501	AC2-070 C	0.2635	80/20	0.2635
932581	AC2-078 C O1	3.2246	Adder	3.79
932591	AC2-079 C O1	4.5169	Adder	5.31
933294	AC2-141 C	23.8831	Adder	28.1
934014	AD1-025 C	13.6207	Adder	16.02
934061	AD1-033 C	5.8780	Adder	6.92
934141	AD1-041 C	4.2424	Adder	4.99
934575	AD1-082 C	6.1196	Adder	7.2
935164	AD1-151 C	13.0494	Adder	15.35
936041	AD2-007 C	0.6507	Adder	0.77
936051	AD2-008 C	2.3713	Adder	2.79
936151	AD2-021	0.0364	80/20	0.0364
936661	AD2-085 C	2.6960	Adder	3.17
936761	AD2-097 C	1.6252	Adder	1.91
937221	AD2-160 C O1	4.5670	Adder	5.37
938535	AE1-072 C	13.7291	Adder	16.15
938634	AE1-085 C	7.0758	Adder	8.32
939195	AE1-149 C	8.5175	Adder	10.02
939261	AE1-157 C O1	14.9493	80/20	14.9493
939271	AE1-158 C O1	15.2567	80/20	15.2567
939414	AE1-173_C1	23.0194	Adder	27.08
939415	AE1-173_C2	19.7309	Adder	23.21
939416	AE1-173_C3	23.0194	Adder	27.08
939431	AE1-175 C	1.9498	Adder	2.29
939611	AE1-191 C	8.4849	Adder	9.98
939755	AE1-206 C	32.0710	80/20	32.0710
940061	AE2-000BC O1	8.4696	Adder	9.96
940231	AE2-005 C	1.0810	Adder	1.27
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	135.9691	Adder	159.96
940431	AE2-027 C O1	10.5044	Adder	12.36
940551	AE2-041	5.7171	Adder	6.73
940651	AE2-052	2.8392	Adder	3.34
940891	AE2-078 C	1.8902	Adder	2.22
940901	AE2-079 C	1.8902	Adder	2.22
941101	AE2-104 C O1	2.6133	Adder	3.07
941281	AE2-122 C O1	22.2695	Adder	26.2
941291	AE2-123 C O1	22.8862	Adder	26.92

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
941301	AE2-124 C O1	20.8069	Adder	24.48
941501	AE2-147 C	12.2553	Adder	14.42
941581	AE2-155 C	0.1002	80/20	0.1002
941591	AE2-156 O1	14.0539	Adder	16.53
942001	AE2-212 C	1.7330	Adder	2.04
942131	AE2-225 C	1.6640	Adder	1.96
942151	AE2-227 C	1.7980	Adder	2.12
942161	AE2-228 C	1.7531	Adder	2.06
942171	AE2-229 C	1.2480	Adder	1.47
942191	AE2-231 C O1	5.0472	80/20	5.0472
942341	AE2-247 C	1.1687	Adder	1.37
942371	AE2-250 C O1	7.7874	Adder	9.16
942401	AE2-253 C	4.8037	Adder	5.65
942551	AE2-270	21.7158	Adder	25.55
943431	AF1-014 C	1.0241	Adder	1.2
943461	AF1-017 C	1.0574	Adder	1.24
943471	AF1-018	5.7171	Adder	6.73
943611	AF1-032 C	1.3590	Adder	1.6
943621	AF1-033 C	1.8902	Adder	2.22
944581	AF1-123 C O1	37.5578	Adder	44.19
944591	AF1-124 C O1	37.5578	Adder	44.19
944601	AF1-125 C O1	37.5578	Adder	44.19
944631	AF1-128 O1	45.7296	Adder	53.8
944641	AF1-129	83.4538	Adder	98.18
944871	AF1-152 C	4.0851	Adder	4.81
945361	AF1-201 C O1	12.8742	Adder	15.15
946001	AF1-265	28.1325	80/20	28.1325
946261	AF1-291 C	1.7533	Adder	2.06
957411	AF2-035 C	9.1766	80/20	9.1766
957491	AF2-043 C	1.6640	Adder	1.96
957551	AF2-049 C	6.6292	80/20	6.6292
957601	AF2-054 C	1.6759	Adder	1.97
957631	AF2-057	2.8103	Adder	3.31
957711	AF2-065 C	11.0751	Adder	13.03
957821	AF2-076 C	4.1205	Adder	4.85
957831	AF2-077 C	1.7089	Adder	2.01
957871	AF2-081 C	7.7821	Adder	9.16
957911	AF2-085	2.8472	Adder	3.35
958141	AF2-108	1.4252	Adder	1.68
958161	AF2-110 C	1.0774	Adder	1.27
959641	AF2-255 C	0.4495	Adder	0.53
959651	AF2-256 C	0.4383	Adder	0.52
959661	AF2-257 C	0.4383	Adder	0.52
959671	AF2-258 C	0.4332	Adder	0.51
959681	AF2-259 C	2.1378	Adder	2.52
960091	AF2-300 C	2.2942	80/20	2.2942
961611	AG1-000B C	6.7627	Adder	15.01
961711	AG1-011	12.2615	Adder	27.22
962131	AG1-057	1.5150	Adder	3.36
962191	AG1-064 C	1.4166	80/20	1.4166
962201	AG1-065 C	1.4166	80/20	1.4166
962271	AG1-075 C O1	7.1234	Adder	15.81

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
962321	AG1-081 C (Withdrawn : 01/15/2021)	0.9107	Adder	2.02
962531	AG1-102 C	0.4649	Adder	1.03
962841	AG1-133 C O1	19.1826	80/20	19.1826
962961	AG1-145 C	0.9324	Adder	2.07
963051	AG1-154 C	3.8766	80/20	3.8766
963221	AG1-171 C	0.9222	Adder	2.05
963231	AG1-172 C	0.9222	Adder	2.05
963241	AG1-173 C	0.9222	Adder	2.05
963251	AG1-174 C	0.9222	Adder	2.05
963261	AG1-175 C	0.9222	Adder	2.05
963291	AG1-178 C O1	23.5212	Adder	52.21
963341	AG1-183 C	6.7907	80/20	6.7907
963351	AG1-184 O1	12.6720	Adder	28.13
963381	AG1-187	2.7683	80/20	2.7683
963621	AG1-213 C	0.7647	80/20	0.7647
963821	AG1-235 C O1	9.9887	Adder	22.17
964951	AG1-359 O1	11.1242	Adder	24.69
965001	AG1-364 C O1	2.9792	Adder	6.61
965181	AG1-383 C	1.1423	Adder	2.54
965441	AG1-412 C	6.0111	Adder	13.34
966491	AG1-518 O1	3.6747	Adder	8.16
966611	AG1-531 C	2.7405	Adder	6.08
966711	AG1-541 C	6.1178	80/20	6.1178
966731	AG1-544 C	2.9289	Adder	6.5
966741	AG1-545 C	0.9763	Adder	2.17
966871	AG1-558 C	0.9463	Adder	2.1
966881	AG1-559 C	2.2942	80/20	2.2942
WEC	WEC	1.0282	Confirmed LTF	1.0282
LGEE	LGEE	2.1683	Confirmed LTF	2.1683
CPL	CPL	7.0113	Confirmed LTF	7.0113
CBM-W2	CBM-W2	39.9258	Confirmed LTF	39.9258
NY	NY	2.8833	Confirmed LTF	2.8833
TVA	TVA	7.2618	Confirmed LTF	7.2618
SIGE	SIGE	1.0189	Confirmed LTF	1.0189
CBM-S2	CBM-S2	89.5543	Confirmed LTF	89.5543
CBM-S1	CBM-S1	1.8514	Confirmed LTF	1.8514
MEC	MEC	5.8491	Confirmed LTF	5.8491
LAGN	LAGN	8.9233	Confirmed LTF	8.9233
AA2-074	AA2-074	4.6354	LTF	4.6354
CBM-W1	CBM-W1	43.0134	Confirmed LTF	43.0134

11.6.16 Index 16

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
163441157	314914	8MDLTHAN	DVP	314918	8NO ANNA	DVP	1	DVP_P1-2: LN 574	single	2442.12	173.32	173.5	DC	41.39

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
313526	AB2-022 C	0.5622	80/20	0.5622
314295	6BIRDNECK	0.0659	80/20	0.0659
314435	6SAPONY	0.5994	80/20	0.5994
314491	3PENDLTN	0.4916	80/20	0.4916
314507	3THOMPSN	0.4946	80/20	0.4946
314572	3EMPORIA	0.5341	Adder	0.63
314638	6ELIZ CT	0.3286	80/20	0.3286
314639	6TANGLEW	0.6031	80/20	0.6031
314643	3O INLET	0.6534	80/20	0.6534
315065	1CHESTF6 (Deactivation : 31/05/2023)	145.8715	Adder	171.61
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0214	Adder	0.03
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0214	Adder	0.03
315083	1SPRUNCA (Deactivation : 12/01/2021)	13.1246	Adder	15.44
315084	1SPRUNCB (Deactivation : 12/01/2021)	13.1246	Adder	15.44
315098	1CHESPKA	0.6537	80/20	0.6537
315099	1CHESPKB (Deactivation : 31/05/2019)	4.5315	80/20	4.5315
315102	1BRUNSWICKG1	12.9917	80/20	12.9917
315103	1BRUNSWICKG2	12.9917	80/20	12.9917
315104	1BRUNSWICKG3	12.9917	80/20	12.9917
315105	1BRUNSWICKS1	26.9901	80/20	26.9901
315108	1ELIZAR1	4.8060	80/20	4.8060
315109	1ELIZAR2	4.7226	80/20	4.7226
315110	1ELIZAR3	4.8675	80/20	4.8675
315233	1SURRY 2	35.9591	80/20	35.9591
315241	1Z1-086 GT1	16.6986	80/20	16.6986
315242	1Z1-086 GT2	16.6986	80/20	16.6986
315243	1Z1-086 GT3	16.6986	80/20	16.6986
315244	1Z1-086 ST	29.0284	80/20	29.0284
315260	1GOSPORTA	0.5220	80/20	0.5220
315261	1GOSPORTB	0.6667	80/20	0.6667
315262	1GOSPORTC	0.5658	80/20	0.5658
315293	1DOMTR9	8.7258	Adder	10.27
315294	1DOMTR10	10.6934	Adder	12.58
315603	6AA1-139SOLA	3.4369	80/20	3.4369
315605	6W1-029WIND	1.6716	80/20	1.6716
315611	6Z1-036WIND	1.6481	80/20	1.6481

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
316083	AB2-161 C (Suspended)	5.0935	80/20	5.0935
316103	AB2-015 C	11.1329	Adder	13.1
316108	AB2-160 C (Suspended)	6.7143	Adder	7.9
316132	AB2-190 C	24.4835	Adder	28.8
316140	AB2-099 C (Suspended)	0.7462	Adder	0.88
316150	AD2-215 C (Withdrawn : 01/14/2021)	0.4209	80/20	0.4209
316258	AE1-162 C	0.5108	80/20	0.5108
923991	AB2-040 C O1	3.6718	Adder	4.32
926661	AC1-147 C	0.5528	80/20	0.5528
926754	AC1-161 C	47.5821	80/20	47.5821
932044	AC2-012 C	15.8494	80/20	15.8494
932581	AC2-078 C O1	6.1088	80/20	6.1088
932591	AC2-079 C O1	8.7326	80/20	8.7326
933294	AC2-141 C	47.5821	80/20	47.5821
933731	AC2-196 C	0.4394	80/20	0.4394
933991	AD1-023 C	16.8659	Adder	19.84
934014	AD1-025 C	20.7117	Adder	24.37
934061	AD1-033 C	11.6962	80/20	11.6962
934521	AD1-076 C	69.9533	Adder	82.3
934575	AD1-082 C	11.6079	80/20	11.6079
934615	AD1-087 C	9.6681	Adder	11.37
935111	AD1-144 C	0.4166	80/20	0.4166
935164	AD1-151 C	19.6743	Adder	23.15
935171	AD1-152 C O1	10.6194	Adder	12.49
936041	AD2-007 C	0.9894	Adder	1.16
936051	AD2-008 C	3.6059	Adder	4.24
936401	AD2-051 C O1	11.2116	Adder	13.19
936661	AD2-085 C	5.2613	80/20	5.2613
936761	AD2-097 C	2.4892	Adder	2.93
937221	AD2-160 C O1	9.0951	80/20	9.0951
937481	AD2-202 C O1	2.8318	Adder	3.33
938494	AE1-068_C1	49.9889	80/20	49.9889
938497	AE1-068_C2	49.9889	80/20	49.9889
938504	AE1-069_C1	38.0971	80/20	38.0971
938507	AE1-069_C2	41.0778	80/20	41.0778
938535	AE1-072 C	27.3517	80/20	27.3517
938551	AE1-074 C	0.6107	80/20	0.6107
938634	AE1-085 C	13.3895	80/20	13.3895
938771	AE1-103 C	4.7311	Adder	5.57
939195	AE1-149 C	16.0272	80/20	16.0272
939414	AE1-173_C1	51.9170	80/20	51.9170
939415	AE1-173_C2	44.5003	80/20	44.5003
939416	AE1-173_C3	51.9170	80/20	51.9170
940061	AE2-000BC O1	16.1010	80/20	16.1010
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	269.3798	80/20	269.3798
940431	AE2-027 C O1	15.4401	Adder	18.16
940471	AE2-031 C	54.5281	80/20	54.5281
940481	AE2-033 C	24.3299	80/20	24.3299
940491	AE2-034 C	9.3106	Adder	10.95
940541	AE2-040	4.3222	80/20	4.3222
940641	AE2-051 C O1	28.7217	80/20	28.7217

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
940651	AE2-052	5.3424	80/20	5.3424
940891	AE2-078 C	2.9568	Adder	3.48
940901	AE2-079 C	2.9568	Adder	3.48
941031	AE2-094 C	65.4234	80/20	65.4234
941101	AE2-104 C O1	5.1652	80/20	5.1652
941281	AE2-122 C O1	44.2187	80/20	44.2187
941291	AE2-123 C O1	45.4431	80/20	45.4431
941301	AE2-124 C O1	41.3261	80/20	41.3261
941501	AE2-147 C	24.4512	80/20	24.4512
941591	AE2-156 O1	27.8230	80/20	27.8230
942001	AE2-212 C	2.6624	Adder	3.13
942131	AE2-225 C	3.3056	80/20	3.3056
942161	AE2-228 C	2.6023	Adder	3.06
942171	AE2-229 C	2.4792	80/20	2.4792
942341	AE2-247 C	2.2803	80/20	2.2803
942371	AE2-250 C O1	11.9267	Adder	14.03
942401	AE2-253 C	9.5665	80/20	9.5665
942471	AE2-260 C O1	18.4328	Adder	21.69
942551	AE2-270	32.8963	Adder	38.7
942931	AE2-313 C	58.9598	80/20	58.9598
943171	AE2-346 C	1.7909	Adder	2.11
943461	AF1-017 C	2.0631	80/20	2.0631
943611	AF1-032 C	2.6996	80/20	2.6996
943621	AF1-033 C	2.9568	Adder	3.48
944011	AF1-069 C	21.3763	80/20	21.3763
944581	AF1-123 C O1	75.0792	80/20	75.0792
944591	AF1-124 C O1	75.0792	80/20	75.0792
944601	AF1-125 C O1	75.0792	80/20	75.0792
944641	AF1-129	122.4021	Adder	144.0
944871	AF1-152 C	8.1504	80/20	8.1504
945711	AF1-236 C O1	101.9285	Adder	119.92
945811	AF1-246 C O1	11.5823	80/20	11.5823
946011	AF1-266	20.3661	80/20	20.3661
946261	AF1-291 C	2.6015	Adder	3.06
946281	AF1-292 C	1.9090	Adder	2.25
957481	AF2-042 C	82.7310	80/20	82.7310
957491	AF2-043 C	3.3056	80/20	3.3056
957521	AF2-046 C	21.4450	Adder	25.23
957531	AF2-047 C	22.1237	Adder	26.03
957631	AF2-057	5.5612	80/20	5.5612
957711	AF2-065 C	16.7771	Adder	19.74
957821	AF2-076 C	8.1999	80/20	8.1999
957871	AF2-081 C	15.5008	80/20	15.5008
957911	AF2-085	6.6022	80/20	6.6022
958141	AF2-108	2.6769	80/20	2.6769
958161	AF2-110 C	2.1294	80/20	2.1294
958501	AF2-144 C	2.2982	Adder	2.7
959531	AF2-244 C (Withdrawn : 01/06/2021)	2.1180	Adder	2.49
959651	AF2-256 C	0.6506	Adder	0.77
959661	AF2-257 C	0.6504	Adder	0.77
959671	AF2-258 C	0.6656	Adder	0.78

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
959681	AF2-259 C	4.0154	80/20	4.0154
959751	AF2-266	11.0755	Adder	13.03
960081	AF2-299 C	3.2173	Adder	3.79
961091	AF2-400 C	0.6012	Adder	0.71
961611	AG1-000B C	10.5561	Adder	23.43
961681	AG1-008 C	11.3886	Adder	25.28
961711	AG1-011	18.6449	Adder	41.39
961851	AG1-027 C	26.0714	80/20	26.0714
961931	AG1-036 C	0.9186	Adder	2.04
961941	AG1-037 C	0.3390	Adder	0.75
962271	AG1-075 C O1	10.9098	Adder	24.22
962321	AG1-081 C (Withdrawn : 01/15/2021)	1.4246	Adder	3.16
962331	AG1-082 C	1.3560	Adder	3.01
962341	AG1-083 C	1.3560	Adder	3.01
962351	AG1-084 C	1.1827	Adder	2.63
962361	AG1-085 C	1.1827	Adder	2.63
962491	AG1-098 C O1	8.4219	Adder	18.69
962561	AG1-105 C O1	6.8494	Adder	15.2
963041	AG1-153 C	9.1158	80/20	9.1158
963111	AG1-160 C	9.2304	80/20	9.2304
963221	AG1-171 C	1.3903	Adder	3.09
963231	AG1-172 C	1.3903	Adder	3.09
963241	AG1-173 C	1.3903	Adder	3.09
963251	AG1-174 C	1.3903	Adder	3.09
963261	AG1-175 C	1.3903	Adder	3.09
963291	AG1-178 C O1	102.6810	80/20	102.6810
963351	AG1-184 O1	55.3190	80/20	55.3190
963821	AG1-235 C O1	37.5219	80/20	37.5219
964491	AG1-312 C O1	12.7300	Adder	28.26
964801	AG1-343 C	4.0122	Adder	8.91
964931	AG1-357 C	34.4172	80/20	34.4172
964951	AG1-359 O1	41.7780	80/20	41.7780
965001	AG1-364 C O1	11.1280	80/20	11.1280
965181	AG1-383 C	4.2908	80/20	4.2908
965291	AG1-394 C	1.3770	Adder	3.06
965631	AG1-431	31.2759	Adder	69.42
965691	AG1-437 C O1	6.8756	Adder	15.26
965701	AG1-438 C O1	6.8756	Adder	15.26
965741	AG1-442 O1	4.0108	Adder	8.9
965751	AG1-443 O1	4.0108	Adder	8.9
965811	AG1-449	38.2324	80/20	38.2324
966361	AG1-505 C	26.9271	80/20	26.9271
966371	AG1-506 C	26.9271	80/20	26.9271
966491	AG1-518 O1	13.7735	80/20	13.7735
966611	AG1-531 C	4.2316	Adder	9.39
966621	AG1-532 C	0.9208	Adder	2.04
966731	AG1-544 C	10.4572	80/20	10.4572
966741	AG1-545 C	3.4875	80/20	3.4875
966931	AG1-431A	23.4981	Adder	52.16
WEC	WEC	1.4011	Confirmed LTF	1.4011
LGEE	LGEE	2.9461	Confirmed LTF	2.9461

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CPL	CPL	12.4679	Confirmed LTF	12.4679
CBM-W2	CBM-W2	59.3331	Confirmed LTF	59.3331
NY	NY	3.1466	Confirmed LTF	3.1466
TVA	TVA	11.1076	Confirmed LTF	11.1076
SIG	SIG	1.2049	Confirmed LTF	1.2049
CBM-S2	CBM-S2	153.5306	Confirmed LTF	153.5306
CBM-S1	CBM-S1	2.7911	Confirmed LTF	2.7911
MEC	MEC	8.2707	Confirmed LTF	8.2707
LAGN	LAGN	13.6973	Confirmed LTF	13.6973
AA2-074	AA2-074	8.2386	LTF	8.2386
CBM-W1	CBM-W1	58.1970	Confirmed LTF	58.1970

11.6.17 Index 17

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
163441264	314918	8NO ANNA	DVP	314934	8SPOTSYL	DVP	1	DVP_P1-2: LN 581	single	3218.56	130.55	130.59	DC	33.5

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314236	6NRTHEST	0.2056	80/20	0.2056
314250	6ROCKVILLE	0.3782	80/20	0.3782
314309	6IRON208	0.4958	80/20	0.4958
314314	3LOCKS	0.3313	80/20	0.3313
315058	1CHESTF3 (Deactivation : 13/12/2018)	17.8083	Adder	20.95
315059	1CHESTF4 (Deactivation : 13/12/2018)	28.8673	Adder	33.96
315060	1CHESTF5 (Deactivation : 31/05/2023)	62.2251	Adder	73.21
315065	1CHESTF6 (Deactivation : 31/05/2023)	142.7943	80/20	142.7943
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0178	Adder	0.02
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0178	Adder	0.02
315083	1SPRUNCA (Deactivation : 12/01/2021)	12.5326	80/20	12.5326
315084	1SPRUNCB (Deactivation : 12/01/2021)	12.5326	80/20	12.5326
315098	1CHESPKA	0.4933	80/20	0.4933
315099	1CHESPKB (Deactivation : 31/05/2019)	3.4201	80/20	3.4201
315108	1ELIZAR1	3.6241	80/20	3.6241
315109	1ELIZAR2	3.5611	80/20	3.5611
315110	1ELIZAR3	3.6705	80/20	3.6705
315225	1N ANNA1	55.8442	80/20	55.8442
315226	1N ANNA2	55.8678	80/20	55.8678
315233	1SURREY 2	28.0583	80/20	28.0583
316083	AB2-161 C (Suspended)	3.3720	Adder	3.97
316108	AB2-160 C (Suspended)	6.3840	80/20	6.3840
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	50.0808	Adder	58.92
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	50.0808	Adder	58.92
316114	AB2-068 ST (Withdrawn : 01/11/2021)	86.7598	Adder	102.07
316132	AB2-190 C	19.9396	Adder	23.46
316134	AC1-107 G1	94.0427	Adder	110.64
316135	AC1-107 G2	94.0427	Adder	110.64
316136	AC1-107 G3	94.0603	Adder	110.66
926001	AC1-076 C	-4.5621	Adder	-5.37

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926661	AC1-147 C	0.4172	80/20	0.4172
926754	AC1-161 C	35.7190	80/20	35.7190
926784	AC1-164 C	21.7875	Adder	25.63
932044	AC2-012 C	11.9620	80/20	11.9620
932581	AC2-078 C O1	4.0481	Adder	4.76
932591	AC2-079 C O1	5.6980	Adder	6.7
933294	AC2-141 C	35.7190	80/20	35.7190
934014	AD1-025 C	16.7659	Adder	19.72
934061	AD1-033 C	7.4742	Adder	8.79
934575	AD1-082 C	7.6845	Adder	9.04
935164	AD1-151 C	16.0229	Adder	18.85
936041	AD2-007 C	0.8009	Adder	0.94
936051	AD2-008 C	2.9189	Adder	3.43
936661	AD2-085 C	3.4088	Adder	4.01
936761	AD2-097 C	2.3769	80/20	2.3769
937221	AD2-160 C O1	5.8068	Adder	6.83
938494	AE1-068_C1	28.5661	Adder	33.61
938497	AE1-068_C2	28.5661	Adder	33.61
938504	AE1-069_C1	21.7705	Adder	25.61
938507	AE1-069_C2	23.4739	Adder	27.62
938535	AE1-072 C	17.4536	Adder	20.53
938551	AE1-074 C	0.4659	80/20	0.4659
938634	AE1-085 C	8.8804	Adder	10.45
939195	AE1-149 C	10.6753	Adder	12.56
939414	AE1-173_C1	36.2645	80/20	36.2645
939415	AE1-173_C2	31.0838	80/20	31.0838
939416	AE1-173_C3	36.2645	80/20	36.2645
939431	AE1-175 C	2.3499	Adder	2.76
940061	AE2-000BC O1	10.6412	Adder	12.52
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	203.1476	80/20	203.1476
940431	AE2-027 C O1	12.8404	Adder	15.11
940471	AE2-031 C	36.6653	80/20	36.6653
940641	AE2-051 C O1	19.6218	80/20	19.6218
940651	AE2-052	3.5584	Adder	4.19
940891	AE2-078 C	2.3452	Adder	2.76
940901	AE2-079 C	2.3452	Adder	2.76
941031	AE2-094 C	43.9347	80/20	43.9347
941281	AE2-122 C O1	28.2988	Adder	33.29
941291	AE2-123 C O1	29.0824	Adder	34.21
941301	AE2-124 C O1	26.4416	Adder	31.11
941591	AE2-156 O1	20.9920	80/20	20.9920
942001	AE2-212 C	2.5255	80/20	2.5255
942131	AE2-225 C	2.1139	Adder	2.49
942151	AE2-227 C	2.5310	80/20	2.5310
942161	AE2-228 C	2.5266	80/20	2.5266
942171	AE2-229 C	1.5855	Adder	1.87
942341	AE2-247 C	1.4776	Adder	1.74
942371	AE2-250 C O1	11.3400	80/20	11.3400
942401	AE2-253 C	6.1078	Adder	7.19
942551	AE2-270	26.7010	Adder	31.41
942931	AE2-313 C	39.6507	80/20	39.6507

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
943461	AF1-017 C	1.3368	Adder	1.57
943611	AF1-032 C	1.7264	Adder	2.03
943621	AF1-033 C	2.3452	Adder	2.76
944011	AF1-069 C	14.3551	80/20	14.3551
944581	AF1-123 C O1	56.2820	80/20	56.2820
944591	AF1-124 C O1	56.2820	80/20	56.2820
944601	AF1-125 C O1	56.2820	80/20	56.2820
944631	AF1-128 O1	54.5625	Adder	64.19
944641	AF1-129	119.8200	80/20	119.8200
946261	AF1-291 C	2.5265	80/20	2.5265
957431	AF2-037 C	13.8541	80/20	13.8541
957491	AF2-043 C	2.1139	Adder	2.49
957631	AF2-057	4.1972	80/20	4.1972
957691	AF2-063 C	22.1076	80/20	22.1076
957711	AF2-065 C	13.6175	Adder	16.02
957871	AF2-081 C	9.8937	Adder	11.64
957911	AF2-085	4.5978	80/20	4.5978
958141	AF2-108	2.1036	80/20	2.1036
959641	AF2-255 C	0.6328	80/20	0.6328
959651	AF2-256 C	0.6316	80/20	0.6316
959661	AF2-257 C	0.6316	80/20	0.6316
959671	AF2-258 C	0.6314	80/20	0.6314
959681	AF2-259 C	3.1554	80/20	3.1554
961611	AG1-000B C	8.3874	Adder	18.62
961711	AG1-011	15.0928	Adder	33.5
961811	AG1-023 C	3.9498	80/20	3.9498
962191	AG1-064 C	1.7003	80/20	1.7003
962201	AG1-065 C	1.7003	80/20	1.7003
962271	AG1-075 C O1	19.5720	80/20	19.5720
962321	AG1-081 C (Withdrawn : 01/15/2021)	1.1300	Adder	2.51
962841	AG1-133 C O1	29.3949	80/20	29.3949
962961	AG1-145 C	1.1237	Adder	2.49
963111	AG1-160 C	2.7973	Adder	6.21
963221	AG1-171 C	1.1323	Adder	2.51
963231	AG1-172 C	1.1323	Adder	2.51
963241	AG1-173 C	1.1323	Adder	2.51
963251	AG1-174 C	1.1323	Adder	2.51
963261	AG1-175 C	1.1323	Adder	2.51
963291	AG1-178 C O1	70.6842	80/20	70.6842
963351	AG1-184 O1	38.0808	80/20	38.0808
963821	AG1-235 C O1	12.7011	Adder	28.19
964421	AG1-305 C O1	17.3913	80/20	17.3913
964951	AG1-359 O1	14.1462	Adder	31.4
965001	AG1-364 C O1	8.3964	80/20	8.3964
965181	AG1-383 C	1.4525	Adder	3.22
965811	AG1-449	25.7078	80/20	25.7078
966491	AG1-518 O1	4.6683	Adder	10.36
966611	AG1-531 C	3.3855	Adder	7.51
966731	AG1-544 C	3.6759	Adder	8.16
966741	AG1-545 C	1.2254	Adder	2.72
WEC	WEC	0.7314	Confirmed LTF	0.7314

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
LGEE	LGEE	1.5946	Confirmed LTF	1.5946
CPL	CPL	8.6009	Confirmed LTF	8.6009
CBM-W2	CBM-W2	35.7952	Confirmed LTF	35.7952
NY	NY	2.7628	Confirmed LTF	2.7628
TVA	TVA	7.0210	Confirmed LTF	7.0210
SIG	SIG	0.8629	Confirmed LTF	0.8629
CBM-S2	CBM-S2	104.6401	Confirmed LTF	104.6401
CBM-S1	CBM-S1	1.7347	Confirmed LTF	1.7347
MEC	MEC	4.6176	Confirmed LTF	4.6176
LAGN	LAGN	8.5978	Confirmed LTF	8.5978
AA2-074	AA2-074	5.6795	LTF	5.6795
CBM-W1	CBM-W1	29.2317	Confirmed LTF	29.2317

11.6.18 Index 18

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
163441206	314934	8SPOTSYL	DVP	314916	8MORRSVL	DVP	1	DVP_P1-2: LN 552	single	3218.56	134.39	134.44	DC	32.82

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
314236	6NRTHEST	0.2014	80/20	0.2014
314250	6ROCKVILLE	0.3709	80/20	0.3709
314309	6IRON208	0.4858	80/20	0.4858
314314	3LOCKS	0.3245	80/20	0.3245
315058	1CHESTF3 (Deactivation : 13/12/2018)	17.4462	Adder	20.52
315059	1CHESTF4 (Deactivation : 13/12/2018)	28.2804	Adder	33.27
315060	1CHESTF5 (Deactivation : 31/05/2023)	60.9577	Adder	71.71
315065	1CHESTF6 (Deactivation : 31/05/2023)	139.8920	80/20	139.8920
315074	1HOPCGN1 (Deactivation : 25/06/2019)	0.0175	Adder	0.02
315075	1HOPCGN2 (Deactivation : 25/06/2019)	0.0175	Adder	0.02
315083	1SPRUNCA (Deactivation : 12/01/2021)	12.2861	80/20	12.2861
315084	1SPRUNCB (Deactivation : 12/01/2021)	12.2861	80/20	12.2861
315098	1CHESPKA	0.4831	80/20	0.4831
315099	1CHESPKB (Deactivation : 31/05/2019)	3.3492	80/20	3.3492
315108	1ELIZAR1	3.5490	80/20	3.5490
315109	1ELIZAR2	3.4874	80/20	3.4874
315110	1ELIZAR3	3.5944	80/20	3.5944
315225	1N ANNA1	54.3957	80/20	54.3957
315226	1N ANNA2	54.4186	80/20	54.4186
315233	1SURRY 2	27.4780	80/20	27.4780
316083	AB2-161 C (Suspended)	3.3028	Adder	3.89
316108	AB2-160 C (Suspended)	6.2536	80/20	6.2536
316112	AB2-068 CT1 (Withdrawn : 01/11/2021)	44.4426	Adder	52.29
316113	AB2-068 CT2 (Withdrawn : 01/11/2021)	44.4426	Adder	52.29
316114	AB2-068 ST (Withdrawn : 01/11/2021)	76.9921	Adder	90.58
316132	AB2-190 C	19.5312	Adder	22.98
316134	AC1-107 G1	92.1388	Adder	108.4
316135	AC1-107 G2	92.1388	Adder	108.4
316136	AC1-107 G3	92.1561	Adder	108.42
925021	AB2-158 C	2.0085	80/20	2.0085

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
926001	AC1-076 C	6.0766	80/20	6.0766
926661	AC1-147 C	0.4085	80/20	0.4085
926737	AC1-158 C1	14.5872	80/20	14.5872
926738	AC1-158 C2	14.5872	80/20	14.5872
926754	AC1-161 C	34.9772	80/20	34.9772
932044	AC2-012 C	11.7141	80/20	11.7141
932581	AC2-078 C O1	3.9651	Adder	4.66
932591	AC2-079 C O1	5.5811	Adder	6.57
933294	AC2-141 C	34.9772	80/20	34.9772
934014	AD1-025 C	16.4224	Adder	19.32
934061	AD1-033 C	7.3196	Adder	8.61
934575	AD1-082 C	7.5270	Adder	8.86
935164	AD1-151 C	15.6947	Adder	18.46
936041	AD2-007 C	0.7845	Adder	0.92
936051	AD2-008 C	2.8591	Adder	3.36
936761	AD2-097 C	2.3301	80/20	2.3301
937221	AD2-160 C O1	5.6867	Adder	6.69
938494	AE1-068_C1	27.9735	Adder	32.91
938497	AE1-068_C2	27.9735	Adder	32.91
938504	AE1-069_C1	21.3189	Adder	25.08
938507	AE1-069_C2	22.9869	Adder	27.04
938551	AE1-074 C	0.4570	80/20	0.4570
938634	AE1-085 C	8.6985	Adder	10.23
939195	AE1-149 C	10.4565	Adder	12.3
939231	AE1-154 C	2.0870	80/20	2.0870
939414	AE1-173_C1	35.5051	80/20	35.5051
939415	AE1-173_C2	30.4330	80/20	30.4330
939416	AE1-173_C3	35.5051	80/20	35.5051
939431	AE1-175 C	2.3014	Adder	2.71
940061	AE2-000BC O1	10.4229	Adder	12.26
940251	AE2-007 O1 (Withdrawn : 12/11/2020)	198.9482	80/20	198.9482
940431	AE2-027 C O1	14.7982	80/20	14.7982
940471	AE2-031 C	35.9101	80/20	35.9101
940641	AE2-051 C O1	19.2096	80/20	19.2096
940651	AE2-052	3.4855	Adder	4.1
940891	AE2-078 C	2.2968	Adder	2.7
940901	AE2-079 C	2.2968	Adder	2.7
941031	AE2-094 C	43.0189	80/20	43.0189
941281	AE2-122 C O1	27.7126	Adder	32.6
941291	AE2-123 C O1	28.4800	Adder	33.51
941301	AE2-124 C O1	25.8951	Adder	30.46
941381	AE2-134 (Suspended)	4.1872	80/20	4.1872
941591	AE2-156 O1	20.5580	80/20	20.5580
942001	AE2-212 C	2.4740	80/20	2.4740
942151	AE2-227 C	2.4800	80/20	2.4800
942161	AE2-228 C	2.4752	80/20	2.4752
942371	AE2-250 C O1	11.1083	80/20	11.1083
942401	AE2-253 C	5.9814	Adder	7.04
942551	AE2-270	26.1541	Adder	30.77
942931	AE2-313 C	38.8349	80/20	38.8349
943621	AF1-033 C	2.2968	Adder	2.7

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
944011	AF1-069 C	14.0559	80/20	14.0559
944111	AF1-079 C	3.9653	80/20	3.9653
944581	AF1-123 C O1	55.1157	80/20	55.1157
944591	AF1-124 C O1	55.1157	80/20	55.1157
944601	AF1-125 C O1	55.1157	80/20	55.1157
944631	AF1-128 O1	53.4512	Adder	62.88
944641	AF1-129	117.3847	80/20	117.3847
946261	AF1-291 C	2.4751	80/20	2.4751
946371	AF1-301 C	16.2047	80/20	16.2047
957431	AF2-037 C	14.4361	80/20	14.4361
957631	AF2-057	4.1102	80/20	4.1102
957691	AF2-063 C	23.0364	80/20	23.0364
957711	AF2-065 C	13.3386	Adder	15.69
957871	AF2-081 C	9.6890	Adder	11.4
957911	AF2-085	4.5132	80/20	4.5132
958141	AF2-108	2.0607	80/20	2.0607
959641	AF2-255 C	0.6200	80/20	0.6200
959651	AF2-256 C	0.6188	80/20	0.6188
959661	AF2-257 C	0.6188	80/20	0.6188
959671	AF2-258 C	0.6185	80/20	0.6185
959681	AF2-259 C	3.0911	80/20	3.0911
961611	AG1-000B C	8.2150	Adder	18.24
961711	AG1-011	14.7836	Adder	32.82
961811	AG1-023 C	4.0631	80/20	4.0631
962191	AG1-064 C	1.6663	80/20	1.6663
962201	AG1-065 C	1.6663	80/20	1.6663
962271	AG1-075 C O1	19.1722	80/20	19.1722
962321	AG1-081 C (Withdrawn : 01/15/2021)	1.1067	Adder	2.46
962841	AG1-133 C O1	28.6623	80/20	28.6623
962961	AG1-145 C	1.1005	Adder	2.44
963221	AG1-171 C	1.1091	Adder	2.46
963231	AG1-172 C	1.1091	Adder	2.46
963241	AG1-173 C	1.1091	Adder	2.46
963251	AG1-174 C	1.1091	Adder	2.46
963261	AG1-175 C	1.1091	Adder	2.46
963291	AG1-178 C O1	69.2025	80/20	69.2025
963351	AG1-184 O1	37.2825	80/20	37.2825
963821	AG1-235 C O1	12.4378	Adder	27.61
964271	AG1-288 C	32.6436	80/20	32.6436
964281	AG1-289	18.0504	80/20	18.0504
964421	AG1-305 C O1	18.1220	80/20	18.1220
964951	AG1-359 O1	13.8529	Adder	30.75
965001	AG1-364 C O1	8.2228	80/20	8.2228
965181	AG1-383 C	1.4224	Adder	3.16
965811	AG1-449	25.1784	80/20	25.1784
966611	AG1-531 C	3.3154	Adder	7.36
966731	AG1-544 C	3.6006	Adder	7.99
966741	AG1-545 C	1.2003	Adder	2.66
WEC	WEC	0.6801	Confirmed LTF	0.6801
LGEE	LGEE	1.4941	Confirmed LTF	1.4941
CPL	CPL	8.4200	Confirmed LTF	8.4200

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
CBM-W2	CBM-W2	34.2541	Confirmed LTF	34.2541
NY	NY	2.8767	Confirmed LTF	2.8767
TVA	TVA	6.7732	Confirmed LTF	6.7732
SIGE	SIGE	0.8682	Confirmed LTF	0.8682
CBM-S2	CBM-S2	102.2389	Confirmed LTF	102.2389
CBM-S1	CBM-S1	1.6686	Confirmed LTF	1.6686
MEC	MEC	4.3539	Confirmed LTF	4.3539
LAGN	LAGN	8.2845	Confirmed LTF	8.2845
AA2-074	AA2-074	5.5593	LTF	5.5593
CBM-W1	CBM-W1	26.9324	Confirmed LTF	26.9324

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
AA1-063	Huntsville (Cabin Creek) 69kV	Withdrawn
AA1-139	Hickory-Shawboro 230kV	In Service
AA1-145	Four Rivers 230kV	In Service
AA2-074	CPLP-PJM	Confirmed
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
AB2-100	Clubhouse-Lakeview 230kV	Under Construction
AB2-134	Hopewell-Surry 230kV	In Service
AB2-158	Louisa-South Anna 230kV	Under Construction
AB2-160	Reams 115kV	Suspended
AB2-161	Waverly #2 DP 115kV	Suspended
AB2-174	Emporia-Trego 115kV	In Service
AB2-190	Hopewell-Surry 230kV	Engineering and Procurement
AC1-054	Kerr Dam-Eatons Ferry 115 kV	Engineering and Procurement
AC1-065	Harmony Village-Shackleford 115kV	Engineering and Procurement
AC1-076	Locust Grove-Paytes 115kV	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
AC1-107	Chickahominy 500kV	Engineering and Procurement
AC1-147	Grassfield 34.5kV	Engineering and Procurement
AC1-158	Spotsylvania 500kV	Partially in Service - Under Construction
AC1-161	Septa 500kV	Engineering and Procurement
AC1-164	Chickahominy 230kV	Engineering and Procurement
AC1-191	Elmont 115kV	Active
AC1-208	Cox-Whitakers 115kV	Engineering and Procurement
AC1-216	Hopewell-Surry 230kV	Partially in Service - Under Construction
AC2-012	Grassfield-Great Bridge 115kV	Active
AC2-070	Old Church 34.5kV	Engineering and Procurement
AC2-078	Disputanta-Waverly 115kV	Engineering and Procurement
AC2-079	Ivor-Oak Ridge 115kV	Engineering and Procurement
AC2-084	Dawson-South Justice 115kV	Active
AC2-137	Elko 34.5kV	Partially in Service - Under Construction
AC2-141	Septa 500kV	Active
AC2-196	Fentress 34.5kV	Engineering and Procurement

Queue Number	Project Name	Status
AD1-023	Cashie-Trowbridge 230 kV	Active
AD1-025	Hopewell-Surry 230 kV	Active
AD1-033	Fentress-Landstown 230 kV	Engineering and Procurement
AD1-041	Harmony Village-Shackleford 115 kV	Engineering and Procurement
AD1-057	Hornertown-Hathaway 230 kV	Active
AD1-063	Harmony Village 34.5 kV	In Service
AD1-076	Trowbridge 230 kV	Active
AD1-082	Bakers Pond-Ivor 115kV	Engineering and Procurement
AD1-087	Clover-Sedge Hill 230 kV	Active
AD1-105	Kings Dominion DP 115 kV	Active
AD1-144	Kings Fork 34.5 kV	Partially in Service - Under Construction
AD1-151	Hopewell-Surry 230 kV	Active
AD1-152	Clover-Sedge Hill 230 kV	Active
AD2-007	Hopewell-Surry 230 kV	Active
AD2-008	Hopewell-Surry 230 kV	Active
AD2-021	Elko 34.5 kV	Partially in Service - Under Construction
AD2-030	Wan 34.5 kV	In Service
AD2-051	Earleys – Northampton 230kV	Active
AD2-073	Sanders DP 230 kV	Active
AD2-074	Garner DP-Lancaster 115 kV	Active
AD2-085	Myrtle-Windsor DP 115kV	Active
AD2-097	Spruance NUG 230kV	In Service
AD2-160	Hickory-Moyock 230kV	Active
AD2-202	Clover-Sedge Hill 230kV	Active
AD2-215	Kings Fork 34.5 kV	Withdrawn
AE1-068	Carson-Rogers Rd 500 kV	Active
AE1-069	Carson-Rogers Road 500 kV	Active
AE1-072	Shawboro-Sligo 230 kV	Active
AE1-074	Winterpock 34.5 kV	Engineering and Procurement
AE1-085	Bakers Pond-Bell Ave 115 kV	Active
AE1-103	Holland-Union Camp 115 kV	Active
AE1-149	Disputanta-Poe 115 kV	Active
AE1-154	Louisa-South Anna 230 kV	Engineering and Procurement
AE1-155	Garner-Northern Neck 115 kV	Active
AE1-157	Ladysmith CT-St. Johns 230 kV	Active
AE1-158	Ladysmith CT-St. Johns 230 kV	Active
AE1-162	Smithfield 34.5 kV	Engineering and Procurement
AE1-173	Carson-Suffolk 500 kV	Active
AE1-175	Light Foot 34.5 kV	Engineering and Procurement
AE1-191	Harmony Village-Shackleford 115 kV	Active
AE1-206	Four Rivers-Hanover 230 kV	Active
AE2-000B	N/A	N/A
AE2-005	Harmony Village-Shackleford 115 kV	Engineering and Procurement
AE2-007	Chesapeake 230 kV	Withdrawn
AE2-027	Harrowgate-Locks 115kV	Active
AE2-031	Carson-Rawlings 500 kV	Active
AE2-033	Clubhouse-Sappony 230 kV	Active
AE2-034	Mackeys 230 kV	Active
AE2-040	Sappony 34.5 kV	Active
AE2-041	Harmony Village 230 kV	Active
AE2-051	Carson-Septa 500 kV	Active
AE2-052	Disputanta-Poe 115 kV	Active

Queue Number	Project Name	Status
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
AE2-134	Locust Grove-Paytes 115 kV	Suspended
AE2-147	Swamp 230 kV	Active
AE2-155	Old Church 34.5 kV	Partially in Service - Under Construction
AE2-156	Yadkin 115 kV	Active
AE2-212	Harrowgate 34 kV	Active
AE2-225	Suffolk 34 kV	Engineering and Procurement
AE2-227	Iron Bridge 34 kV	Engineering and Procurement
AE2-228	Tyler 34 kV	Engineering and Procurement
AE2-229	Suffolk 34 kV	Engineering and Procurement
AE2-231	St. Johns 115 kV	Active
AE2-247	Myrtle-Windsor 115 kV	Active
AE2-250	Purdy Sw.-Reams 115 kV	Active
AE2-253	Hickory-Moyock 230 kV	Active
AE2-260	Clubhouse 230 kV	Active
AE2-270	Hopewell-Surry 230 kV	Active
AE2-313	Carson-Rawlings 500 kV	Active
AE2-346	Ahoskie 34.5 kV	Active
AF1-014	Harmony Village-Shackleford 115 kV	Active
AF1-017	Myrtle-Windsor 115 kV	Active
AF1-018	Harmony Village 230 kV	Active
AF1-031	Kings Dominion DP 115 kV	Active
AF1-032	Suffolk 34.5 kV	Engineering and Procurement
AF1-033	Poolesville 34 kV	Engineering and Procurement
AF1-042	Garner DP-Lancaster 115 kV	Active
AF1-059	Brodnax-South Hill 115 kV	Active
AF1-067	Kings Dominion DP 115 kV	Active
AF1-069	Carson-Rogers Rd 500 kV	Active
AF1-079	Louisa-South Anna 230 kV	Active
AF1-123	Fentress 500 kV	Active
AF1-124	Fentress 500 kV	Active
AF1-125	Fentress 500 kV	Active
AF1-128	Chesterfield 230 kV	Active
AF1-129	Chesterfield 230 kV	Active
AF1-152	Swamp 230 kV	Active
AF1-201	Hayes-White Marsh 115 kV	Active
AF1-236	Mackeys 230 kV	Active
AF1-246	Clover-Rawlings 500 kV	Active
AF1-265	Four Rivers-Hanover 230 kV	Active
AF1-266	Clubhouse-Sapony 230 kV	Active
AF1-291	Tyler 34.5 kV	Engineering and Procurement
AF1-292	Fields 34.5kV	Active
AF1-301	Louisa-South Anna 230 kV	Active
AF2-035	St. Johns 115 kV	Active
AF2-037	Louisa-North Anna 230 kV	Active
AF2-042	Clover-Rawlings 500 kV	Active

Queue Number	Project Name	Status
AF2-043	Suffolk 34.5 kV	Engineering and Procurement
AF2-046	Tunis-Mapleton 115 kV	Active
AF2-047	Creswell-Riders Creek 115 kV	Active
AF2-049	Ladysmith CT-St. Johns 230 kV	Active
AF2-054	Wan 34.5 kV	Active
AF2-057	Grassfield 34.5 kV	Active
AF2-063	Louisa-North Anna 230 kV	Active
AF2-065	Surry-Hopewell 230 kV	Active
AF2-076	Suffolk-Nucor Steel 230 kV	Active
AF2-077	White Marsh 34.5 kV	Active
AF2-081	Moyock 230 kV	Active
AF2-085	Midlothian 34.5 kV	Engineering and Procurement
AF2-108	Locks 34.5 kV	Active
AF2-110	Suffolk 115 kV	Active
AF2-120	Garner-Northern Neck 115 kV	Active
AF2-144	Powhatan 34.5 kV	Active
AF2-242	Wharton 115 kV	Active
AF2-244	Powhatan 34.5 kV	Withdrawn
AF2-255	Iron Bridge 34.5 kV	Engineering and Procurement
AF2-256	Tyler 34.5 kV	Engineering and Procurement
AF2-257	Tyler 34.5 kV	Active
AF2-258	Harrowgate 34.5 kV	Active
AF2-259	Locks 34.5 kV	Active
AF2-266	Clover 230 kV	Active
AF2-299	Fields 34.5 kV	Active
AF2-300	St. Johns 115 kV	Active
AF2-400	Franklin 13.2 kV	Engineering and Procurement
AG1-000B	N/A	N/A
AG1-008	Tunis-Mapleton 115 kV	Active
AG1-011	Colonial Trial 230 kV	Active
AG1-023	North Anna-Louisa 230 kV	Active
AG1-027	Suffolk-Holland 115 kV	Active
AG1-036	Tunis 34.5 kV	Active
AG1-037	Earlys 34.5 kV	Active
AG1-038	Garner DP-Lancaster 115 kV	Active
AG1-057	Harmony Village 230 kV	Active
AG1-064	Plaza 34.5 kV	Active
AG1-065	Plaza 34.5 kV	Active
AG1-075	Purdy-Sapony 115 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
AG1-102	White Marsh 34.5 kV	Active
AG1-105	Clover-Sedge Hill 230 kV	Active
AG1-106	Thelma 230 kV	Active
AG1-133	North Anna-Ladysmith 500 kV	Active
AG1-134	Kings Dominion DP 115 kV	Active
AG1-135	Garner-Lancaster 115 kV	Active
AG1-145	Lightfoot 34.5 kV	Active

Queue Number	Project Name	Status
AG1-146	Garner DP-Lancaster 115 kV	Active
AG1-147	Garner DP-Lancaster 115 kV	Active
AG1-153	Heritage 500 kV	Active
AG1-154	Ladysmith CT 230 kV	Active
AG1-160	Rogers Road 500 kV	Active
AG1-171	Hopewell-Surry 230kV	Active
AG1-172	Hopewell-Surry 230 kV	Active
AG1-173	Hopewell-Surry 230 kV	Active
AG1-174	Hopewell-Surry 230 kV	Active
AG1-175	Hopewell-Surry 230 kV	Active
AG1-178	Carson-Septa 500 kV	Active
AG1-179	Brunswick 69 kV	Active
AG1-180	Brunswick 69 kV	Active
AG1-183	St. Johns DP-REC 115 kV	Active
AG1-184	Carson-Septa 500 kV	Active
AG1-187	St. Johns DP-REC 115 kV	Active
AG1-210	Northern Neck 34.5 kV	Active
AG1-213	St Johns 13.2 kV	Active
AG1-235	Fentress-Sligo 230 kV	Active
AG1-256	Northern Neck 230 kV	Active
AG1-282	Dunnsville 34.5 kV	Active
AG1-288	Lake of the Woods DP-Wilderness DP 115 kV	Active
AG1-289	Lake of the Woods DP-Wilderness DP 115 kV	Active
AG1-305	Louisa-North Anna 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
AG1-388	Dunnsville 34.5 kV	Active
AG1-394	Boykins 34.5 kV	Active
AG1-412	Ladysmith CT-Mine Road 230 kV	Active
AG1-413	South Hill-Bordnax 115 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
AG1-442	Cashie-Earleys 230 kV	Active
AG1-443	Cashie-Earleys 230 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
AG1-531	Poolesville-Winchester 230 kV	Active
AG1-532	Fields 34.5 kV	Active
AG1-536	Garner-Northern Neck 115 kV	Active
AG1-541	St. Johns 115 kV	Active
AG1-544	Bakers Pond DP 115 kV	Active
AG1-545	W. Quaker Rd-Disputanta 34.5 kV	Active

Queue Number	Project Name	Status
AG1-546	Ebony-Elams Road 115 kV	Active
AG1-551	Parmele 12.5 kV	Active
AG1-552	Carolina 13.2 kV	Active
AG1-558	Buckner 34.5 kV	Active
AG1-559	Caroline Pines 22 kV	Active
W1-029	Winfall 230kV	In Service
Z1-036	WinFall-Chowan 230kV	Suspended
Z1-086	Heritage-Carson	In Service

11.8 Contingency Descriptions

Contingency Name	Contingency Definition
DVP_P4-2: WT576	CONTINGENCY 'DVP_P4-2: WT576' /* NORTH ANNA 500 KV OPEN BRANCH FROM BUS 314914 TO BUS 314918 CKT 1 /* 8MDLTHAN 500.00 - 8NO ANNA 500.00 OPEN BRANCH FROM BUS 314232 TO BUS 314918 CKT 2 /* 6NO ANNA 230.00 - 8NO ANNA 500.00 END
DVP_P1-2: LN 211	CONTINGENCY 'DVP_P1-2: LN 211' OPEN BRANCH FROM BUS 314287 TO BUS 314303 CKT 1 /* 6CHESTF B 230.00 - 6HOPEWLL 230.00 END
DVP_P1-2: LN 240-A	CONTINGENCY 'DVP_P1-2: LN 240-A' OPEN BRANCH FROM BUS 314303 TO BUS 935160 CKT 2 /* 6HOPEWLL 230.00 - AD1-151 TAP 230.00 OPEN BUS 316132 /* ISLAND: AB2-190 C 230.00 OPEN BUS 925332 /* ISLAND: AB2-190 E 230.00 OPEN BUS 935160 /* ISLAND: AD1-151 TAP 230.00 OPEN BUS 935161 /* ISLAND: AD1-151 MAIN230.00 OPEN BUS 935162 /* ISLAND: AD1-151 COL 34.500 OPEN BUS 935163 /* ISLAND: AD1-151 GSU 34.500 OPEN BUS 935164 /* ISLAND: AD1-151 C 0.6000 OPEN BUS 935165 /* ISLAND: AD1-151 E 0.6000 END
DVP_P1-2: LN 557	CONTINGENCY 'DVP_P1-2: LN 557' OPEN BRANCH FROM BUS 314903 TO BUS 314908 CKT 1 /* 8CHCKAHM 500.00 - 8ELMONT 500.00 END
DVP_P1-2: LN 563	CONTINGENCY 'DVP_P1-2: LN 563' OPEN BRANCH FROM BUS 314902 TO BUS 314914 CKT 1 /* 8CARSON 500.00 - 8MDLTHAN 500.00 END
DVP_P1-2: LN 240-D	CONTINGENCY 'DVP_P1-2: LN 240-D' OPEN BRANCH FROM BUS 314538 TO BUS 961610 CKT 2 /* 6SURREY 230.00 - AG1- 000B TAP 230.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 217	CONTINGENCY 'DVP_P1-2: LN 217' OPEN BRANCH FROM BUS 314225 TO BUS 314227 CKT 1 /* 6CHARCTY 230.00 - 6LAKESIDE 230.00 OPEN BRANCH FROM BUS 314225 TO BUS 314260 CKT 1 /* 6CHARCTY 230.00 - 6VARINA 230.00 OPEN BRANCH FROM BUS 314260 TO BUS 314287 CKT 1 /* 6VARINA 230.00 - 6CHESTF B 230.00 OPEN BUS 314225 /* ISLAND: 6CHARCTY 230.00 OPEN BUS 314260 /* ISLAND: 6VARINA 230.00 END
DVP_P1-2: LN 567	CONTINGENCY 'DVP_P1-2: LN 567' OPEN BRANCH FROM BUS 314903 TO BUS 314924 CKT 1 /* 8CHCKAHM 500.00 - 8SURREY 500.00 END
DVP_P1-2: LN 2049	CONTINGENCY 'DVP_P1-2: LN 2049' OPEN BRANCH FROM BUS 314271 TO BUS 314281 CKT 1 /* 6ALLIED 230.00 - 6BURDET 230.00 OPEN BRANCH FROM BUS 314281 TO BUS 314294 CKT 1 /* 6BURDET 230.00 - 6ENON 230.00 OPEN BRANCH FROM BUS 314286 TO BUS 314294 CKT 1 /* 6CHESTF A 230.00 - 6ENON 230.00 OPEN BUS 314281 /* ISLAND: 6BURDET 230.00 OPEN BUS 314294 /* ISLAND: 6ENON 230.00 END
DVP_P1-2: LN 574	CONTINGENCY 'DVP_P1-2: LN 574' OPEN BRANCH FROM BUS 314908 TO BUS 314911 CKT 1 /* 8ELMONT 500.00 - 8LADYSMITH 500.00 END
DVP_P1-2: LN 228	CONTINGENCY 'DVP_P1-2: LN 228' OPEN BRANCH FROM BUS 314286 TO BUS 314303 CKT 1 /* 6CHESTF A 230.00 - 6HOPEWLL 230.00 END
DVP_P7-1: LN 212-240-D	CONTINGENCY 'DVP_P7-1: LN 212-240-D' /* . OPEN BRANCH FROM BUS 313896 TO BUS 314538 CKT 1 /* 6COLONIAL TR230.00 - 6SURREY 230.00 OPEN BRANCH FROM BUS 961610 TO BUS 314538 CKT 2 /* AG1-000B TAP 230.00 - 6SURREY 230.00 END

Contingency Name	Contingency Definition
DVP_P7-1: LN 212-240-C	CONTINGENCY 'DVP_P7-1: LN 212-240-C' /* . OPEN BRANCH FROM BUS 313896 TO BUS 314538 CKT 1 /* 6COLONIAL TR230.00 - 6SURRY 230.00 OPEN BRANCH FROM BUS 961610 TO BUS 942550 CKT 2 /* AG1-000B TAP 230.00 - AE2-270 TAP 230.00 END
DVP_P4-2: 57602	CONTINGENCY 'DVP_P4-2: 57602' /* NORTH ANNA 500 KV OPEN BRANCH FROM BUS 314914 TO BUS 314918 CKT 1 /* 8MDLTHAN 500.00 - 8NO ANNA 500.00 OPEN BRANCH FROM BUS 314232 TO BUS 314918 CKT 1 /* 6NO ANNA 230.00 - 8NO ANNA 500.00 END
DVP_P1-2: LN 552	CONTINGENCY 'DVP_P1-2: LN 552' OPEN BRANCH FROM BUS 314135 TO BUS 314905 CKT 1 /* 3CHANCE 115.00 - 8CHANCE 500.00 OPEN BRANCH FROM BUS 314900 TO BUS 314905 CKT 1 /* 8BRISTER 500.00 - 8CHANCE 500.00 END
Base Case	
DVP_P1-2: LN 576	CONTINGENCY 'DVP_P1-2: LN 576' OPEN BRANCH FROM BUS 314914 TO BUS 314918 CKT 1 /* 8MDLTHAN 500.00 - 8NO ANNA 500.00 END
DVP_P1-2: LN 579	CONTINGENCY 'DVP_P1-2: LN 579' OPEN BRANCH FROM BUS 314923 TO BUS 314927 CKT 1 /* 8SEPTA 500.00 - 8YADKIN 500.00 END
DVP_P1-2: LN 2197	CONTINGENCY 'DVP_P1-2: LN 2197' OPEN BRANCH FROM BUS 313896 TO BUS 314303 CKT 1 /* 6COLONIAL TR230.00 - 6HOPEWLL 230.00 END
DVP_P2-2: BASIN B7	CONTINGENCY 'DVP_P2-2: BASIN B7' /* BASIN 230 KV OPEN BRANCH FROM BUS 314276 TO BUS 314287 CKT 1 /* 6BASIN 230.00 - 6CHESTF B 230.00 OPEN BRANCH FROM BUS 314276 TO BUS 314339 CKT 1 /* 6BASIN 230.00 - 6SPRUNCE 230.00 OPEN BRANCH FROM BUS 314274 TO BUS 314276 CKT 2 /* 3BASIN 115.00 - 6BASIN 230.00 END

Contingency Name	Contingency Definition
DVP_P1-2: LN 581	CONTINGENCY 'DVP_P1-2: LN 581' OPEN BRANCH FROM BUS 314135 TO BUS 314905 CKT 2 /* 3CHANCE 115.00 - 8CHANCE 500.00 OPEN BRANCH FROM BUS 314905 TO BUS 314911 CKT 1 /* 8CHANCE 500.00 - 8LADYSMITH 500.00 END

12 Short Circuit Analysis

The following Breakers are overdutied:

None.

12.1 System Reinforcements - Short Circuit

None.

13 Affected Systems

13.1 TVA

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

13.2 Duke Energy Progress

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

14 Attachment 1: One Line Diagram