



**Generation Interconnection
Feasibility Study Report
for
Queue Project AF2-253
MCCLELLAND-SHENANGO 345 KV
42 MW Capacity / 70 MW Energy**

July 2020

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1 Introduction

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

2 Preface

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

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

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

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

3 General

The Interconnection Customer (IC), has proposed a Solar generating facility located in Lawrence County, Pennsylvania. The installed facilities will have a total capability of 70 MW with 42 MW of this output being recognized by PJM as Capacity. The proposed in-service date for this project is June 01, 2022. This study does not imply a TO commitment to this in-service date.

Queue Number	AF2-253
Project Name	MCCLELLAND-SHENANGO 345 KV
State	Pennsylvania
County	Lawrence
Transmission Owner	ATSI
MFO	70
MWE	70
MWC	42
Fuel	Solar
Basecase Study Year	2023

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

AF2-253 will interconnect with the ATSI transmission system.

The interconnection of the project at the Primary POI will be accomplished by constructing a new 345 kV three (3) breaker ring bus substation and looping the McClelland-Shenango 345 kV Line into the new station. The new substation will be located approximately 5.1 miles from the McClelland Substation. The IC will be responsible for acquiring all easements, properties, and permits that may be required to construct both the new interconnection switching station and the associated facilities. The IC will also be responsible for the rough grade of the property and an access road to the proposed three-breaker ring bus site. The project will also require Non-Direct Connection upgrades at McClelland Substation and Shenango Substation.

Attachment 1 shows a one-line diagram of the proposed primary Direct Connection facilities for the AF2-253 generation project to connect to the FirstEnergy (“FE”) Transmission System. The IC will be responsible for constructing the facilities on its side of the POI, including the Attachment Facilities which connect the generator to the FE Transmission System’s Direct Connection facilities.

5 Cost Summary

The AF2-253 project will be responsible for the following costs:

Description	Total Cost
Total Physical Interconnection Costs	\$27,980,000
Total System Network Upgrade Costs	\$50,312,500 ¹
Total Costs	\$78,292,500

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 88-129. 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 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’s MW contribution to a facility that is already overloaded by a prior queue is less than 5 MW, then they will not receive cost allocation.

6 Transmission Owner Scope of Work

The interconnection of the project at the Primary POI will be accomplished by constructing a new 345 kV three (3) breaker ring bus substation and looping the McClelland-Shenango 345 kV Line into the new station. The new substation will be located approximately 5.1 miles from the McClelland Substation. The IC will be responsible for acquiring all easements, properties, and permits that may be required to construct both the new interconnection switching station and the associated facilities. The IC will also be responsible for the rough grade of the property and an access road to the proposed three-breaker ring bus site. The project will also require Non-Direct Connection upgrades at McClelland Substation and Shenango Substation.

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

Description	Total Cost
Install disconnect switch, dead-end structure, and associated facilities for generator lead line exit at interconnection substation.	\$355,000
Construct 345 kV three breaker ring bus interconnection substation.	\$6,565,000
Loop the McClelland-Shenango 345 kV Line into the new substation.	\$4,020,000
Upgrade relaying at McClelland.	\$570,000
Install ~5.1 miles of OPGW for fiber relaying from McClelland to FE owned 3-breaker ring for AF2-253.	\$7,050,000
Install ~6.4 miles of OPGW for fiber relaying from Shenango to FE owned 3-breaker ring for AF2-253.	\$8,850,000
Upgrade relaying at Shenango.	\$570,000
Total Physical Interconnection Costs	\$27,980,000

7 Schedule

Based on the scope of work for the interconnection facilities, it is expected to take a minimum of 24 months after the signing of an Interconnection Construction Service Agreement and construction kickoff call to complete the installation. This assumes that there will be no environmental issues with any of the new properties associated with this project, that there will be no delays in acquiring the necessary permits for implementing the defined work and that all system outages will be allowed when requested.

The schedule for the required Network Impact Reinforcements will be more clearly identified in future study phases. The estimated time to complete each of the required reinforcements is identified in the “System Reinforcements” section of the report.

8 Transmission Owner Analysis

FE performed an analysis of its underlying transmission <100 kV system. The AF2-253 project did not contribute to any overloads on the FE Transmission System.

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 FE’s “Requirements for Transmission Connected Facilities” document located at:

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

Compliance Issues and Interconnection Customer Requirements

The proposed Customer Facilities must be designed in accordance with FE’s “Requirements for Transmission Connected Facilities” document located at: <http://www.pjm.com/planning/design-engineering/to-tech-standards/private-firstenergy.aspx>. In particular, the IC is responsible for the following:

1. The purchase and installation of a fully rated 345 kV circuit breaker to protect the AF2-253 generator lead line. A single circuit breaker must be used to protect this line; if the project has several GSU transformers, the individual GSU transformer breakers cannot be used to protect this line.
2. The purchase and installation of the minimum required FE generation interconnection relaying and control facilities. 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 FE Transmission System Control Center.
4. Compliance with the FE and PJM generator power factor and voltage control requirements.

5. The execution of a back-up service agreement to serve the customer load supplied from the AF2-253 generation project metering point when the units are out-of-service. This assumes the intent of the IC is to net the generation with the load.

The IC will also be required to meet all PJM, ReliabilityFirst, 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 ReliabilityFirst 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 FE Transmission System.

10 Revenue Metering and SCADA Requirements

10.1 PJM Requirements

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

10.2 Meteorological Data Reporting Requirements

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

- Back Panel temperature (Fahrenheit)
- Irradiance (Watts/meter²)
- Ambient air temperature (Fahrenheit) – (Accepted, not required)
- Wind speed (meters/second) – (Accepted, not required)

Wind direction (decimal degrees from true north) – (Accepted, not required)

10.3 Interconnected Transmission Owner Requirements

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

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

The IC will be required to comply with all FE revenue metering requirements for generation interconnection customers which can be found in FE's "Requirements for Transmission Connected Facilities" document located at: <http://www.pjm.com/planning/design-engineering/to-tech-standards/private-firstenergy.aspx>

11 Summer Peak - Load Flow Analysis

The Queue Project AF2-253 was evaluated as a 70.0 MW (Capacity 42.0 MW) injection tapping the Shenango to McClelland 345 kV line in the ATSI area. Project AF2-253 was evaluated for compliance with applicable reliability planning criteria (PJM, NERC, NERC Regional Reliability Councils, and Transmission Owners). Project AF2-253 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)

None

11.2 Multiple Facility Contingency

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

ID	FROM BUS#	FROM BUS	kV	FROM BUS AREA	TO BUS#	TO BUS	kV	TO BUS AREA	CKT ID	CONT NAME	Type	Rating MVA	PRE PROJECT LOADING %	POST PROJECT LOADING %	AC DC	MW IMPACT
98815430	923061	AB1-105 TAP	345.0	ATSI	238781	02HANNA	345.0	ATSI	1	ATSI-P7-1-OEC-345-034T	tower	1743.0	99.62	100.42	DC	13.95

11.3 Contribution to Previously Identified Overloads

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

None

11.4 Potential Congestion due to Local Energy Deliverability

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

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

None

11.5 System Reinforcements - Summer Peak Load Flow - Primary POI

ID	Idx	Facility	Upgrade Description	Cost
98815430	1	AB1-105 TAP 345.0 kV - 02HANNA 345.0 kV Ckt 1	<u>ATSI</u> OEE-002A : Reconductor roughly 23 miles of the existing 3000 AAC transmission line with 48/7 with dual conductor 636 ACSS 30/7. Upgrade terminals as required. Project Type : FAC Cost : \$50,312,500 Time Estimate : 36.0 Months	\$50,312,500
			TOTAL COST	\$50,312,500 ¹

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
98815430	923061	AB1-105 TAP	ATSI	238781	02HANNA	ATSI	1	ATSI-P7-1-OEC-345-034T	tower	1743.0	99.62	100.42	DC	13.95

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
238967	02MNFDG3 (Deactivation : 07/11/2019 WD - 01/06/2021)	67.6151	Adder	79.55
238995	02NCUNTD	0.0635	50/50	0.0635
239022	02NWCAG3	2.1798	50/50	2.1798
239023	02NWCAG4	2.3301	50/50	2.3301
239024	02NWCAG5	3.4400	50/50	3.4400
239085	02SAMMG1 (Deactivation : 31/05/2020)	11.5864	Adder	13.63
239086	02SAMMG2 (Deactivation : 31/05/2020)	11.2664	Adder	13.25
239087	02SAMMG3 (Deactivation : 31/05/2020)	10.3031	Adder	12.12
239088	02SAMMG4 (Deactivation : 31/05/2020)	10.1378	Adder	11.93
239214	02NILE-A	0.9710	50/50	0.9710
239276	02COLLW 11	-2.9399	Adder	-3.46
239292	02SAM-EMD (Deactivation : 01/06/2021)	0.8322	Adder	0.98
239297	02CPPW41	-3.2549	Adder	-3.83
240070	02Z2-028_1A	13.1159	50/50	13.1159
240071	02Z2-028_1B	13.1159	50/50	13.1159
240072	02Z2-028_1S	14.1248	50/50	14.1248
240077	AB1-015 E	4.0092	50/50	4.0092
240195	02CARBONLM	0.5986	50/50	0.5986
240213	02MHNGLFH093	0.1051	50/50	0.1051
241913	02AA1-044 C	28.0314	50/50	28.0314
254251	15SHELL E	7.7112	Adder	9.07
915952	Y3-092 NFTWR	79.8400	Merchant Transmission	79.8400
923062	AB1-105 OP	301.7160	50/50	301.7160
923821	AB2-019 FTWR	2.2355	Merchant Transmission	2.2355
930081	AB1-017	3.2285	50/50	3.2285
933531	AC2-168 C (Suspended)	0.2810	Adder	0.33
933532	AC2-168 E (Suspended)	0.4662	Adder	0.55
934021	AD1-026	4.1886	50/50	4.1886
935021	AD1-135 C (Suspended)	0.2012	Adder	0.24
935022	AD1-135 E (Suspended)	0.3289	Adder	0.39
938581	AE1-079 C O1	2.4465	50/50	2.4465
938582	AE1-079 E O1	1.1598	50/50	1.1598
939541	AE1-183 C	1.9218	50/50	1.9218

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
939542	AE1-183 E	1.2812	50/50	1.2812
939971	AE1-237 C	2.4457	50/50	2.4457
939972	AE1-237 E	1.1594	50/50	1.1594
941201	AE2-114 C	0.7533	Adder	0.89
941202	AE2-114 E	0.5022	Adder	0.59
941211	AE2-115 C	0.7533	Adder	0.89
941212	AE2-115 E	0.5022	Adder	0.59
941881	AE2-193 C	9.5034	50/50	9.5034
941882	AE2-193 E	13.1238	50/50	13.1238
942611	AE2-277 C	2.4064	50/50	2.4064
942612	AE2-277 E	3.3389	50/50	3.3389
942691	AE2-285 C O1	5.4348	50/50	5.4348
942692	AE2-285 E O1	3.6232	50/50	3.6232
942813	AE2-299 BAT	9.9776	Merchant Transmission	9.9776
943141	AE2-343 C	2.2283	50/50	2.2283
943142	AE2-343 E	1.0145	50/50	1.0145
944251	AF1-093 C	1.9218	50/50	1.9218
944252	AF1-093 E	1.2812	50/50	1.2812
944392	AF1-104 BAT	1.5072	Merchant Transmission	1.5072
944811	AF1-146 C	21.2217	50/50	21.2217
944812	AF1-146 E	14.1478	50/50	14.1478
944851	AF1-150 C	0.2722	Adder	0.32
944852	AF1-150 E	0.6435	Adder	0.76
945061	AF1-171 C	2.1739	50/50	2.1739
945062	AF1-171 E	1.4493	50/50	1.4493
945241	AF1-189	0.3433	50/50	0.3433
945251	AF1-190	0.1468	50/50	0.1468
945261	AF1-191	0.5658	50/50	0.5658
945851	AF1-250 C	1.9565	50/50	1.9565
945852	AF1-250 E	1.3044	50/50	1.3044
946061	AF1-271 C O1	2.5104	Adder	2.95
946062	AF1-271 E O1	1.6736	Adder	1.97
946411	AF1-305 C O1	3.8957	50/50	3.8957
946412	AF1-305 E O1	2.5971	50/50	2.5971
957501	AF2-044	5.8490	50/50	5.8490
958351	AF2-129 C	2.1302	50/50	2.1302
958352	AF2-129 E	1.4202	50/50	1.4202
958691	AF2-160	0.1075	Adder	0.24
958851	AF2-176 C	7.7914	50/50	7.7914
958852	AF2-176 E	5.1943	50/50	5.1943
959451	AF2-236 C	0.8696	50/50	0.8696
959452	AF2-236 E	0.5797	50/50	0.5797
959621	AF2-253 C	8.3689	50/50	8.3689
959622	AF2-253 E	5.5793	50/50	5.5793
960311	AF2-322 C	20.9835	50/50	20.9835
960312	AF2-322 E	13.9867	50/50	13.9867
960501	AF2-341 C O1	2.2172	50/50	2.2172
960502	AF2-341 E O1	1.4782	50/50	1.4782
960511	AF2-342 C O1	2.2172	50/50	2.2172
960512	AF2-342 E O1	1.4782	50/50	1.4782
960521	AF2-343 C O1	2.2172	50/50	2.2172
960522	AF2-343 E O1	1.4782	50/50	1.4782

Bus #	Bus	Gendeliv MW Impact	Type	Full MW Impact
960531	AF2-344 C O1	2.2172	50/50	2.2172
960532	AF2-344 E O1	1.4782	50/50	1.4782
960541	AF2-345 C O1	2.2172	50/50	2.2172
960542	AF2-345 E O1	1.4782	50/50	1.4782
960761	AF2-367	0.3814	Adder	0.85
960771	AF2-368	0.2899	Adder	0.64
960931	AF2-384 C O1	0.3070	Adder	0.68
960932	AF2-384 E O1	0.3070	Adder	0.68
NEWTON	NEWTON	2.1931	Confirmed LTF	2.1931
FARMERCITY	FARMERCITY	0.1138	Confirmed LTF	0.1138
G-007A	G-007A	2.6372	Confirmed LTF	2.6372
VFT	VFT	7.0821	Confirmed LTF	7.0821
CALDERWOOD	CALDERWOOD	0.6466	Confirmed LTF	0.6466
PRAIRIE	PRAIRIE	5.0317	Confirmed LTF	5.0317
CHEOAH	CHEOAH	0.6436	Confirmed LTF	0.6436
EDWARDS	EDWARDS	0.7892	Confirmed LTF	0.7892
TILTON	TILTON	1.3671	Confirmed LTF	1.3671
GIBSON	GIBSON	1.1018	Confirmed LTF	1.1018
BLUEG	BLUEG	3.3331	Confirmed LTF	3.3331
TRIMBLE	TRIMBLE	1.0696	Confirmed LTF	1.0696
CATAWBA	CATAWBA	0.3055	Confirmed LTF	0.3055

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
AA1-044	Shenango-Hoytdale 345kV	In Service
AB1-015	Evergreen 138kV	In Service
AB1-017	Highland-Sammis 345 kV & Highland-Mansfield 345 kV	In Service
AB1-105	Highland-Hanna 345kV	Active
AB2-019	Erie West 345kV	Engineering and Procurement
AC2-168	Clinton 23kV	Suspended
AD1-026	Shenango-Hoytdale 345 kV	In Service
AD1-135	Clinton 23 kV II	Suspended
AE1-079	Maysville-Sharon 69 kV	Active
AE1-183	Maysville-McDowell 69 kV	Active
AE1-237	Andover (Maysville) 69kV I	Active
AE2-114	Midland 23 kV I	Engineering and Procurement
AE2-115	Midland 23 kV II	Engineering and Procurement
AE2-193	Shenango 138 kV	Active
AE2-277	McDowell 138 kV	Active
AE2-285	Maysville 69 kV	Active
AE2-299	Erie East 230 kV	Active
AE2-343	Andover (Maysville) 69 kV II	Active
AF1-093	Henderson-Stoneboro 69 kV	Active
AF1-104	Erie West 34.5 kV	Active
AF1-146	Hoytdale -McClelland 345 kV	Active
AF1-150	Midfield 22.9 kV	Active
AF1-171	Jamestown-Hartstown 69 kV	Active
AF1-189	Niles CT A 23 kV	Partially in Service - Under Construction
AF1-190	New Castle 4 69 kV	Partially in Service - Under Construction
AF1-191	New Castle 5 138 kV	Partially in Service - Under Construction
AF1-250	Maysville 69 kV II	Active
AF1-271	Keisters-Krendale 138 kV	Active
AF1-305	Maysville-Masury 138 kV	Active
AF2-044	Highland-Sammis and Highland-Mansfield 345 kV	Active
AF2-129	Sharon-Mercer 69 kV	Active
AF2-160	Brunot Island 138 kV	Active
AF2-176	Masury-Maysville 138 kV	Active
AF2-236	Jamestown-Hartstown 69 kV	Active
AF2-253	McClelland-Shenango 345 kV	Active
AF2-322	Hoytdale-McClelland 345 kV	Active
AF2-341	Maysville138 kV	Active
AF2-342	Maysville138 kV II	Active
AF2-343	Maysville 138 kV III	Active
AF2-344	Maysville 138 kV IV	Active
AF2-345	Maysville 138 kV V	Active

Queue Number	Project Name	Status
AF2-367	Neville 23 kV	Active
AF2-368	Pine Creek 23 kV	Active
AF2-384	Brunot Island 138 kV	Active
Y3-092	Erie West 345kV	Engineering and Procurement
Z2-028	Highland-Sammis 345kV & Highland-Mansfield 345kV	In Service

11.8 Contingency Descriptions

Contingency Name	Contingency Definition
ATSI-P7-1-OEC-345-034T	CONTINGENCY 'ATSI-P7-1-OEC-345-034T' /* HANNA-MAN HANNA-BEAV VAL 345 DISCONNECT BRANCH FROM BUS 238781 TO BUS 238941 CKT 1 /* 02HANNA 345 02MANSFD 345 DISCONNECT BRANCH FROM BUS 238781 TO BUS 253902 CKT 1 /* 02HANNA 345 15BVRVAL 345 END

12 Short Circuit Analysis

The Short Circuit Analysis will be performed during the System Impact Study phase.

13 Affected Systems

13.1 NYISO

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

13.2 MISO

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

14 Attachment 1: One Line Diagram