

December 12, 2018

Via Electronic Filing

The Honorable Kimberly D. Bose
Secretary
Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, DC 20426

**Re: American Transmission Systems Inc. – Filing of Revised Service Agreement
and New Service Agreement in Docket No. ER19-549-000**

Dear Secretary Bose:

Pursuant to section 205 of the Federal Power Act (“FPA”)¹ and Part 35 of the Federal Energy Regulatory Commission’s (“Commission’s”) Rules of Practice and Procedure,² American Transmission Systems Inc. (“ATSI” or the “Applicant”), a transmission owning member of the PJM Interconnection, L.L.C. (“PJM”), hereby submits for filing one new and one revised service agreement (the “Service Agreements”) described in detail herein.³

I. Description of the Applicant

ATSI is a transmission-only public utility, which owns, operates, and maintains transmission facilities in Ohio and western Pennsylvania. ATSI is a member of PJM, and its transmission facilities are subject to the functional control of PJM, which provides transmission service to customers pursuant to the PJM Open Access Transmission Tariff (“PJM Tariff”).

¹ 16 U.S.C. § 824d.

² 18 C.F.R. Part 35.

³ Pursuant to Order No. 714, this filing is submitted by PJM on behalf of the Applicant as part of an XML filing package that conforms to the Commission’s regulations. PJM has agreed to make all filings on behalf of the PJM Transmission Owners in order to retain administrative control over the PJM Tariff. Thus, the Applicant requested that PJM submit the Service Agreements in the eTariff system as part of PJM’s electronic Service Agreements Tariff.

II. Description of the Service Agreements

Service Agreement No. 2852

Fifth revised Service Agreement No. 2852 (“SA No. 2852”) is an operating and interconnection agreement by and between American Municipal Power, Inc. (“AMP”)⁴ and FirstEnergy Service Company on behalf of ATSI and the Distribution Companies.⁵ SA No. 2852 sets forth the rates, terms, and conditions for the interconnection and coordinated operation of the parties’ systems and for AMP’s use of certain transmission and distribution facilities to enable it to serve its wholesale loads. SA No. 2852 was originally dated June 1, 2011 and filed in Docket No. ER11-3265-000 and became effective on June 1, 2011.⁶ A first revised version of SA No. 2852, dated August 13, 2014, which updated the delivery points listed in Appendix 1, was filed in Docket No. ER14-2937-000 and became effective on November 20, 2014.⁷ A second revised version of SA No. 2852, dated July 2, 2015, which updated the delivery points listed in Appendix 1, was filed in Docket No. ER15-2278-000 and became effective on August 26, 2015.⁸ A third revised version of SA No. 2852, dated November 21, 2016, which updated the delivery points listed in Appendix 1, was filed in Docket No. ER17-719-000 and became effective on February 28, 2017.⁹ A fourth revised version of SA No. 2852, dated June 28, 2018, which updated the delivery points listed in Appendix I, was filed in Docket No. ER18-2021-000 and became effective on September 14, 2018.¹⁰ The instant filing contains a fifth revised version of SA No. 2852, dated November 27, 2018, which reflects the commitment to develop one-line diagrams for all existing delivery points by April 30, 2019 and the removal of one delivery point due to a change in ownership of 138 kV delivery point facilities from the City of Napoleon, Ohio to AMPT¹¹ located at the Napoleon Substation.

⁴ AMP is a nonprofit Ohio corporation with members in Ohio, West Virginia, Pennsylvania, Michigan, Virginia, Kentucky, Maryland, Indiana and Delaware. The majority of AMP’s members are load-serving entities within the PJM service territory. AMP is interconnected to the ATSI transmission system as well as certain other distribution companies affiliated with ATSI (“Distribution Companies”).

⁵ The “Distribution Companies” are The Cleveland Electric Illuminating Company, Ohio Edison Company, Pennsylvania Power Company, and The Toledo Edison Company and are subsidiaries of FirstEnergy Corp. These companies own and operate certain electric facilities used for the transmission and distribution of wholesale electric energy.

⁶ See Letter Order issued on May 25, 2011 in Docket No. ER11-3265-000.

⁷ See Letter Order issued on October 30, 2014 in Docket No. ER14-2937-000.

⁸ See Letter Order issued on July 27, 2015 in Docket No. ER15-2278-000.

⁹ See Letter Order issued on January 31, 2017 in Docket No. ER17-719-000.

¹⁰ See Letter Order issued on September 4, 2018 in Docket No. ER18-2021-000.

¹¹ AMPT is a transmission-only non-profit limited liability company, which owns, operates, and maintains transmission facilities in Ohio. AMPT’s transmission facilities are subject to the functional control of PJM, which provides transmission service to customers pursuant to the PJM Tariff.

Service Agreement No. 5196

The new service agreement involves an interconnection agreement by and between ATSI and AMP Transmission, LLC (“AMPT”),¹² dated November 27, 2018, designated as Original Service Agreement No. 5196 (“SA No. 5196”) under the PJM Service Agreements Tariff. SA No. 5196 sets forth the rates, terms, and conditions for the interconnection and coordinated operation of the parties’ systems and for AMPT’s use of certain transmission facilities to enable it to serve its wholesale loads. On September 26, 2018, AMPT acquired the 138 kV facilities of the City of Napoleon, Ohio, and will serve as the Transmission Owner for these facilities going forward.

Appendix I of the Service Agreement specifies and describes this 138 kV point of interconnection (“POI”). The POI was placed into service well before this filing, as the facilities were constructed some time ago by municipal distribution utilities in the City of Napoleon. The POI has been under PJM’s operation control since FirstEnergy became a PJM transmission owner and the POI was included in prior versions of SA No. 2852. PJM is a signatory to the Service Agreement for the limited purpose of acknowledging that it has read the Service Agreement and to ensure that, as the regional transmission operator, PJM is apprised of the matters addressed in the Service Agreement for purposes of reliability and planning considerations.

III. Request for Waiver and Effective Date

The Applicant requests an effective date for the Service Agreements of December 14, 2018. The transition of the POI from ATSI to AMPT has not yet become effective but is projected to be so effective on December 14, 2018. Likewise, since S.A. No. 2852 no longer reflects the POI transferred to AMPT, the Applicant requests an effective date for S.A. No. 2852 of December 14, 2018.

¹² AMPT is a transmission-only non-profit limited liability company, which owns, operates, and maintains transmission facilities in Ohio. AMPT’s transmission facilities are subject to the functional control of PJM, which provides transmission service to customers pursuant to the PJM Open Access Transmission Tariff (“PJM Tariff”).

Given the requested effective date, the filing of the Service Agreements has failed to meet the Commission's prior notice requirements.¹³ The Applicant's failure to file the Service Agreements no later than sixty (60) days before December 14, 2018, namely, no later than October 14, 2018, was due to the unexpectedly protracted review process undertaken by the parties and the parties not having sufficient time to finalize the Service Agreements.

The Applicant requests a waiver of the Commission's prior notice requirements and an effective date for the Service Agreements of December 14, 2018. The Commission has granted a waiver of the notice requirement where, as here, no rates or charges have been imposed under the subject agreement.¹⁴ No rates have been charged or collected under the Service Agreements. Furthermore, SA No. 2852 is being revised only to remove the transferred POI. Finally, ATSI is not aware of any party to the Service Agreements expressing opposition to ATSI's request for a waiver. ATSI has been notified by AMP and AMPT that each of these entities supports the request for a waiver and an effective date of December 14, 2018. The Applicant, thus, respectfully requests that the Commission grant an effective date of December 14, 2018 for SA No. 2852 and SA No. 5196 in order to coincide with the PJM communication link in-service date for the POI facilities.

IV. Communications

Please direct any communications regarding this filing to the following individuals.

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¹³ See 18 C.F.R. § 35.3.

¹⁴ See, e.g., Central Hudson Gas & Electric Corp., et al., 60 FERC ¶ 61,106 (1992), reh'g denied, 61 FERC ¶ 61,089 (1992) (holding that waiver of the 60-day prior notice requirement will generally be granted for uncontested filings that do not change rates); PJM Interconnection, L.L.C., 142 F.E.R.C. ¶ 61067 (2013) (granting waiver of the Commission's 60-day prior notice requirement of 18 C.F.R. § 35.3(a)(1) by accepting PJM's requested effective date of December 1, 2012 for proposed tariff revisions submitted on November 30, 2012).

V. Documents Submitted With This Filing

In accordance with the Commission's eTariff regulations, PJM, on behalf of the Applicant, is submitting an eTariff XML filing package containing the following materials:

- this transmittal letter;
- the Service Agreements in eTariff format;
- a clean copy of the Service Agreements and the One-Line Diagrams belonging to SA No. 5196 in PDF format for publishing in eLibrary;
- a marked copy of SA No. 2852 in PDF format for publishing in eLibrary; and
- a PDF document with the signatures pages of the parties to the Service Agreements for publishing in eLibrary.

VI. Service

The Applicant has served copies of this filing upon all other parties to the Service Agreements.

VII. Conclusion

For the reasons set forth herein, the Applicant respectfully requests an effective date of December 14, 2018 for the Service Agreements.

/s/ Nicholas A. Giannasca

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**FIFTH AMENDED OPERATING AND INTERCONNECTION AGREEMENT
FOR WHOLESALE LOAD**

Between

AMERICAN MUNICIPAL POWER, INC.

And

FIRSTENERGY SERVICE COMPANY

(on behalf of American Transmission Systems, Incorporated,
The Cleveland Electric Illuminating Company, Ohio Edison Company,
Pennsylvania Power Company and The Toledo Edison Company)

Fifth Amended Operating and Interconnection Agreement for Wholesale Load

This Agreement is entered into as of the 27th day of November, 2018 by and between American Municipal Power, Inc. ("Customer") and the FirstEnergy Service Company (on behalf of American Transmission Systems, Incorporated ("ATSI"), The Cleveland Electric Illuminating Company ("CEI"), Ohio Edison Company ("OE"), Pennsylvania Power Company ("PP"), and The Toledo Edison Company ("TE") (together, "FirstEnergy"), being sometimes herein referred to collectively as the "Parties" or singularly as a "Party." For the avoidance of doubt, the term "Party" or "Parties" shall not include PJM Interconnection, L.L.C. ("PJM") or any transmission owning affiliate of Customer. In consideration of the mutual covenants and agreements herein, it is agreed as follows:

WITNESSETH:

WHEREAS, ATSI, CEI, OE, PP, and TE are subsidiaries of FirstEnergy Corp. that own and operate certain electric facilities used for the transmission and distribution of wholesale electric energy;

WHEREAS, FirstEnergy is entering into this Agreement on behalf of ATSI, CEI, OE, PP, and TE. CEI, OE, PP, and TE are also referred to as the "FirstEnergy Operating Companies";

WHEREAS, Customer is an entity that serves or acts on behalf of others in arranging for the wholesale transmission and distribution of electric energy utilizing facilities owned by ATSI and the FirstEnergy Operating Companies to serve Customer load;

WHEREAS, PJM is a Regional Transmission Organization ("RTO") offering transmission service to eligible customers;

WHEREAS, the Federal Energy Regulatory Commission ("FERC" or the "Commission") has requested that the Parties include PJM as a signatory to this Agreement for the purpose of

ensuring that PJM is kept fully apprised of the matters addressed herein and so that PJM may be kept aware of any reliability and planning issues that arise;

WHEREAS, this Agreement does not provide for the purchase, sale or exchange of transmission or ancillary services; and

WHEREAS, the Parties wish to establish the terms and conditions for the interconnection and coordinated operation of the Parties' systems and for the Customer's use of certain transmission and/or distribution facilities to enable the Customer to serve its wholesale loads, which are separate from the rates, terms and conditions of transmission service provided by PJM under the PJM Open Access Transmission Tariff ("PJM Tariff").

NOW, THEREFORE, in consideration of the premises and of the mutual covenants set forth herein, the Parties agree as follows:

ARTICLE 1: AGREEMENT OBJECTIVE AND APPLICABLE TARIFFS

- 1.1 **Agreement Objective:** The objective of this Agreement is to establish the terms and conditions for the interconnection and coordinated operation of the Parties' systems and for the Customer's use of certain transmission and/or distribution facilities to enable the Customer to serve its wholesale loads.
- 1.2 **Limitation of Scope:** Nothing in this Agreement shall be deemed to impose on Customer any obligation or standard of care or performance with respect to facilities used by Customer to serve its members other than those that are owned by Customer (or one or more of Customer's members) and that are interconnected with FirstEnergy's system in the ATSI service territory.
- 1.3 **Applicability of Tariffs:** During the term of this Agreement, as it may be amended from

time to time, FirstEnergy agrees to provide Services for the Customer, and the Customer agrees to pay for such Services under the terms and conditions identified in Section 3.9 and Section 8.1 hereto, in accordance with this Agreement. The term “Services” means those services described herein which are subject to the jurisdiction of the FERC but not provided by PJM under the PJM Tariff. In addition, the applicable provisions of the PJM Tariff, as such tariff shall at any time during the term of this Agreement be on file and accepted by FERC, including any applicable Schedules and Attachments appended to such tariff shall apply. FirstEnergy shall not provide any Services or levy any charges hereunder that are provided or charged by PJM under the PJM Tariff. FirstEnergy’s and the Customer’s rights and obligations with respect to Services are limited to the terms hereof.

- 1.4 **Governance Over Conflicts:** The terms and conditions of such Services provided by FirstEnergy shall be governed by this Agreement, or as hereafter amended. In the case of any conflict between this Agreement and the PJM Tariff, the PJM Tariff shall control.
- 1.5 **Good Utility Practice:** The term “Good Utility Practice” as used herein shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. “Good Utility Practice” is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods or acts generally accepted in the region, including those practices required by Federal Power Act Section 215.

ARTICLE 2: DELIVERY POINTS

- 2.1 **Location:** The location of existing facilities connecting the Customer's power delivery facilities to the FirstEnergy power delivery facilities ("Delivery Points") are listed in Appendix 1. Unless the Parties shall subsequently agree otherwise, the existing Delivery Points listed in Appendix 1 shall be continued in service. FirstEnergy and the Customer, to the extent practicable, shall each maintain, in accordance with Good Utility Practice, the facilities on their respective sides of such points, and future points of delivery as may be established from time to time in accordance with Article 3 and Article 5, in order that said facilities will operate in a reliable and satisfactory manner, and without material reduction in their intended capacity or purpose. Delivery Points shall be used only for the delivery of electric power and energy to the Customer, and shall not be used to inject electric power or energy into the FirstEnergy system from electric generating facilities owned by the Customer, a municipal utility, a rural co-operative, or a third party unless the Customer has studied, planned, and coordinated the interconnection of the generation facility with FirstEnergy pursuant to the Application process set forth in Article 5, if required pursuant to subpart (b) of Section 5.2 or at any time, through the PJM Tariff generator interconnection process. For the Delivery Points at Genoa, Galion, Painesville, Oberlin, Bowling Green and Napoleon, these study, planning and coordination requirements shall not apply with respect to injection levels that are equal to or less than the injection levels existing as of June 1, 2011, but shall apply in every other respect. The Customer and FirstEnergy shall endeavor to operate their respective facilities in continuous synchronism through such Delivery Points as shall from time to time be established by mutual agreement between the Parties. The Parties may, from time to time

by mutual agreement, add one or more additional Delivery Points or discontinue or modify one or more existing Delivery Points pursuant to the procedures set forth in Article 5 and shall amend Appendix 1 of this Agreement, including any one-line diagrams set forth therein, to reflect the same. The Parties shall cooperate and exercise their best efforts to amend this Agreement by including one -line diagrams of existing Delivery Points in a new appendix to be filed with FERC by April 30, 2019.

ARTICLE 3: OPERATION AND MAINTENANCE

- 3.1 **General:** Customer must design, construct, maintain, and operate its system facilities safely and efficiently in accordance with Good Utility Practice; applicable national, state, and local codes, standards, and regulations, including those promulgated by NERC, ReliabilityFirst Corporation, and PJM or successor organizations; applicable manufacturer's equipment specifications; and the most current requirements specified by FirstEnergy and applicable to the Services, including but not limited to those set forth by FirstEnergy in the documents entitled "Requirements for Transmission Connected Facilities," "Transmission Planning Criteria" and "Distribution Connection Requirements" as they may be revised from time to time ("FirstEnergy Documents") and posted on its web site. FirstEnergy shall provide Customer with notice pursuant to Section 15.1 of any changes to the FirstEnergy Documents as changes are made from time to time. FirstEnergy shall comply with Good Utility Practice; all applicable national, state, and local codes, standards, and regulations, including those promulgated by NERC, ReliabilityFirst Corporation, and PJM or successor organizations; applicable manufacturer's equipment specifications; and the most current requirements specified by FirstEnergy and applicable to the Services, including but not limited to those set forth in

the FirstEnergy Document. FirstEnergy shall have the right to waive Customer's compliance with the technical requirements provided in the FirstEnergy Document. In the event of a conflict between the provisions of this Agreement and the FirstEnergy Document, the provisions of this Agreement shall govern.

- 3.2 **Electric Service Characteristics:** Electric service, in the form of three phase, approximately sixty-hertz alternating current, shall be delivered at the designated Delivery Points and nominal voltage(s) listed in Appendix 1.

3.2.1 **Multiple Delivery Points:** When multiple Delivery Points are provided to a specific location identified in Appendix 1, they shall not be operated in parallel by the Customer without the approval of FirstEnergy, which approval shall not be unreasonably withheld; provided that any such approval may be revoked if in FirstEnergy's discretion such action is necessary to maintain or retain safe and reliable operation of the electric system or any of FirstEnergy's facilities. (The three Bowling Green 69 kV delivery points are operated in parallel. Approval of the parallel operation of these delivery points is grandfathered.) The Operating Committee, as provided under Article 9, shall establish and monitor standards and operating rules and procedures to assure that system integrity and the safety of customers, the public and employees are maintained or enhanced when parallel operation is permitted either on a continuing basis or for intermittent switching or other service needs. Each Party shall exercise due diligence and reasonable care in maintaining and operating its facilities so as to maintain continuity of service.

- 3.2.2 **Avoidance of Burdens and Control of System Disturbance:** The Parties shall maintain and operate their respective systems so as to minimize, in accordance

with Good Utility Practice, the likelihood of a disturbance originating in either system which might cause impairment to the service of the other Party or of any system interconnected with the system of the other Party. For planning purposes, the Customer shall not transfer loads from one Delivery Point to another without FirstEnergy's approval, which timely approval shall not be unreasonably withheld. For normal operational purposes, the Parties shall coordinate transfers of load from one Delivery Point to another Delivery Point, and the Customer shall not transfer loads from one Delivery Point to another without FirstEnergy's approval, which timely approval shall not be unreasonably withheld. The Parties shall make any additional arrangements with respect to load transfers through the Operating Committee, as provided under Article 9.

- 3.3 **Impairment:** If the function of either Party's facilities is impaired or the capacity of any Delivery Point is reduced, or synchronous operation at any Delivery Point(s) becomes interrupted, either manually or automatically, as a result of force majeure (as such term force majeure is described in the Amended and Restated Operating Agreement of PJM) or maintenance coordinated by the Parties, the Parties will cooperate to remove the cause of such impairment, interruption or reduction, so as to restore normal operating conditions as expeditiously as practicable under Good Utility Practice and the circumstances.
- 3.4 **Emergencies:** Each Party reserves the right to take any action deemed necessary by PJM or itself during an actual or imminent emergency to preserve the reliability and integrity of the interconnected systems of FirstEnergy and Customer, limit or prevent damage, expedite restoration of service, ensure safe and reliable operation, avoid adverse effects on the quality of service, or preserve public safety.

- 3.4.1 **Emergency Curtailment:** In an emergency, the reasonable judgment of FirstEnergy, in accordance with Good Utility Practice, shall be the determinant of whether the operation of the Customer loads or equipment adversely affects the quality of service or interferes with the safe and reliable operation of the FirstEnergy system. FirstEnergy may discontinue Service to such Customer until the power quality or interfering condition has been corrected; provided that, to the extent practicable, FirstEnergy will provide reasonable notice to Customer. To the extent practicable under Good Utility Practice and in FirstEnergy's sole discretion, FirstEnergy will provide Customer with an opportunity to alleviate the condition to avoid the discontinuation of Service in an emergency. Any such curtailment of load, redispatching, or load shedding shall be effectuated on a nondiscriminatory basis and in accordance with PJM manuals.
- 3.5 **Curtailment:** In non-emergencies, FirstEnergy may curtail Service under this Agreement to limit or prevent damage to its generating, transmission, or distribution facilities caused by the Customer's failure to maintain its facilities as directed by PJM or in accordance with Good Utility Practice; provided that, to the extent practicable, FirstEnergy will provide reasonable notice to Customer and an opportunity for Customer to remedy the adverse condition in accordance with Section 3.9. Any such curtailment of load, redispatching, or load shedding shall be effectuated on a non-discriminatory basis and in accordance with PJM manuals.
- 3.6 **Procedures:** The Operating Committee shall establish procedures to coordinate the maintenance schedules, and return to service of the generating resources, transmission and distribution facilities, to the greatest extent practicable, to ensure sufficient transmission

and distribution resources are available to maintain system reliability and reliability of service to the integrated facilities of FirstEnergy and Customer in accordance with FirstEnergy Documents and the requirements of the PJM Tariff and/or PJM Manuals.

- 3.6.1 **Scheduled Maintenance and Outages**: Each Party may, in accordance with Good Utility Practice, remove from service its facilities that may affect the other Party's system in order to perform maintenance or to install or replace equipment on such facilities. The Party proposing to remove such facilities from service shall provide prior notice of such activities to the other Party in accordance with FirstEnergy Documents. The Party scheduling a facility outage shall coordinate its actions with the other Party with the goal of avoiding any disruptions of service on the system of either Party.
- 3.7 **Control of Reactive Power Exchange**: No Party shall be obligated to deliver or receive reactive power for the benefit of any other Party under this Agreement. The Parties will maintain voltage and load power factor requirements at the Delivery Points in accordance with the latest version of the FirstEnergy Documents and/or the PJM Tariff.
- 3.8 **Control of Energy**: Any deviations between actual and planned deliveries of power and energy between the systems of the respective Parties to serve their load will be managed and settled pursuant to the PJM Tariff and the PJM business practices.
- 3.9 **Failure to Perform**: With respect to non-emergencies, in the event a Party fails to adhere to the provisions of this Article 3, the other Party will provide reasonable notice and an opportunity for the failing Party to remedy any adverse condition(s) on the notifying Party's system that are caused by the Party's failure to adhere to the provisions of this Article 3. Such notice shall be provided in writing, and shall provide at least 180 days for

the Parties to develop a mutually agreeable plan to cure the adverse condition(s). If the Parties fail to develop a mutually agreeable plan to cure the adverse condition(s), or if the failing Party does not comply with the plan or meet the timelines included in the plan, the Parties shall first comply with the dispute resolution procedures under Article 11. If a plan for curing the adverse condition(s) is not developed, or compliance with the plan or meeting the timelines included in the plan is not achieved as part of the dispute resolution process under Article 11, the noticing Party may take remedial action on its system as is reasonable and consistent with Good Utility Practice under the circumstances. Such remedial actions may include the installation of facilities on the notifying Party's system, at the other Party's expense, to remedy the adverse condition(s) on the notifying Party's system. Such remedial actions shall not include the curtailment of service unless the adverse condition(s) is likely to cause physical damage to the notifying Party's generating, transmission, or distribution facilities. Incurred charges for facilities planned for or installed pursuant to the immediately preceding sentence shall be limited to the planning or installing Party's actual costs and may include actual direct and indirect labor and non-labor costs to the extent such costs are properly allocable to the planning or installation of the subject facilities.

ARTICLE 4: PLANNING AND PROTECTION

- 4.1 **Planning Data**: No later than December 15 of each year, the Customer shall provide FirstEnergy with: (i) copies of documents provided by Customer to PJM on an annual basis in accordance with provisions of the PJM Tariff that require Customer to submit a ten (10) year forecast of load for each existing and planned new Delivery Point, and a ten (10) year projection of planned generating resources and committed transactions with third parties,

insofar as such information pertains to the Customer's existing and planned Delivery Points located or to be located in ATSI's service territory; and (ii) a projection for each of the next ten (10) years of transmission and distribution facility additions to be owned and/or constructed by the Customer, which facilities are expected to affect the planning or operation of the transmission and distribution system within ATSI's territory. Notwithstanding the foregoing, Customer shall not be required to provide FirstEnergy with information that Customer in good faith deems to be proprietary or commercially sensitive.

4.2 **Planning Data Communication:** The information in Section 4.1 shall be forwarded to FirstEnergy's representative on the Operating Committee, with a copy to FirstEnergy's representative identified under Article 15.

4.2.1 Disclosure: Information exchanged by the Parties under this Section will be used for system planning and protection only, and will not be disclosed (i) to third parties, absent mutual consent or order of a court or regulatory agency, or (ii) within FirstEnergy or by FirstEnergy to one or more of its affiliates, except as permitted by FERC's Standards of Conduct.

4.3 **Coordination:** The Parties shall coordinate with each other regarding the technical and engineering arrangements for the Delivery Points, including one-line diagrams depicting the electrical facilities configuration and parallel generation, and shall arrange the facilities to avoid interruptions on either Party's system.

ARTICLE 5: NEW DELIVERY POINTS AND MODIFICATIONS TO EXISTING DELIVERY POINTS

5.1 **General:** Unless otherwise agreed upon, the procedures outlined in this Article 5 shall be followed for new Delivery Points; upgrades, retirements, replacements, relocations for

existing Delivery Points; or additions, retirements, or modifications to behind-the-meter generation. Prior to submitting an application for any facility under this Article 5 (“Application”), the Customer should discuss the proposed Delivery Point project with FirstEnergy to determine the need for an ILS and/or DLS as those terms are defined below as soon as practicable.

- 5.2 **Application:** Should it become necessary or desirable by the Customer to (a) upgrade, retire, replace, or relocate an existing Delivery Point, or establish a new Delivery Point, including metering or other facilities at such location; (b) add, retire, or modify behind-the-meter generation that results in Penetration of generation capacity at each Delivery Point in excess of 15%; (c) for Delivery Points less than 69 kV, add 1 MW or more over any 12-month period above the most recent load forecast provided in Section 4.1; (d) for Delivery Points 69 kV and above but less than 138 kV, add 2 MW or more over any 12 month period above the most recent load forecasts provided in Section 4.1; or (e) for Delivery Points 138 kV and above, add 5 MW or more over any 12-month period above the most recent load forecasts provided in Section 4.1, the Customer shall make Application requests in writing to FirstEnergy using the then-effective Application forms made available by contacting FirstEnergy’s representative under Article 15. With regard to subpart (b), Penetration is defined as the total aggregate generation nameplate capacity from all sources, divided by the peak load at the Delivery Point, expressed as a percentage. Following an initial Application under this subpart (b), subsequent Applications shall be submitted each time the Penetration is increased by 2.5%. For example, an Application shall be submitted when the Penetration reaches 17.5%, and another shall be submitted when the Penetration reaches 20%. The requirement to submit an Application pursuant to

this Section 5.2 shall not apply in situations in which load is temporarily transferred from one Delivery Point to another Delivery Point with FirstEnergy's approval.

5.2.1 **Response to Application:** Upon receipt of an Application, FirstEnergy shall review the information and advise the Customer within five (5) business days that the Application is complete, or if additional information is needed to make the Application complete. FirstEnergy will attempt to remedy minor deficiencies in the Application through informal communications with the Customer. If FirstEnergy does not receive the required additional information to complete the Application within fifteen (15) business days, the application will be deemed withdrawn. As soon as practicable within thirty (30) calendar days after receipt of a completed Application, FirstEnergy will inform the Customer of the need for an ILS, and/or DLS as those terms are defined below, and provide the Customer with the appropriate agreement.

5.2.2 **Application Modifications:** If at any point in the process outlined in this Section 5.2 the Customer is considering modifying the information provided in the Application, any supporting information or the study scope, the Customer may first request that FirstEnergy evaluate whether such modification(s) will be treated as constituting a "Material Modification." For purposes of this Section 5.2.2, a "Material Modification" shall be any change to an Application that FirstEnergy reasonably determines will materially increase the cost or the length of time required to complete an ILS and/or DLS for any facilities needed to accommodate the project that is the subject of the Application, and may (depending on the specific relevant circumstances) include such changes as an

increase in MW capacity, a change in electrical location of the proposed Delivery Point, a change in the study scope, or a delay in the in-service date of the proposed Delivery Point by three (3) or more years. In response to the Customer's request and at the Customer's cost, FirstEnergy shall evaluate the proposed modification(s) prior to making them and shall inform the Customer in writing whether FirstEnergy will treat the modification as a Material Modification. If the modification(s) is not treated as a Material Modification, FirstEnergy shall continue to meet all requirements set forth in Section 5.2.1 with respect to the original Application, as modified. If the modification(s) is treated as a Material Modification, FirstEnergy may, at its option, treat the original Application as void and consider the Application, as modified, a new Application, or FirstEnergy may continue to process the Application, as modified, in accordance with the requirements of this Section 5.2. The Customer may withdraw its Application at any time and without cost provided that the Customer withdraws the Application prior to the Customer's execution of an ILSA and/or DLSA (described below).

- 5.3 **Initial Load Study ("ILS")**: Should an ILS be required due to the complexity in evaluating the Customer's Application caused by preceding projects, the Customer's system configuration, or FirstEnergy's system configuration in the vicinity of the Delivery Point, FirstEnergy shall provide the Customer with an ILS Agreement ("ILSA"). If an ILS is not required due to the lack of complexity in evaluating the Customer's Application, then only a DLS shall be required. The ILSA shall include the scope of work and payment terms to complete the ILS. The Customer shall execute and deliver an executed ILSA within thirty (30) calendar days following receipt of the ILSA form. Upon receipt of the

executed study agreement, FirstEnergy shall carry out the ILS. In the ILS, FirstEnergy shall assess the feasibility of modifying an existing Delivery Point or establishing the new Delivery Point, or assessing system impacts caused by changes to behind-the-meter generation. The study shall use power flow and short circuit analyses and any other analyses that may be appropriate to identify the facilities necessary to physically and electrically connect the Delivery Point, identify technical limitations, identify feasible mitigation alternatives, and provide a high level cost estimate to engineer and construct the Delivery Point. If the Customer fails to return an executed ILSA within thirty (30) calendar days of receipt, or at a later date as the Parties mutually agree, FirstEnergy will deem the study request to be withdrawn. The Customer may withdraw its study request at any time by written notice of such withdrawal to FirstEnergy. FirstEnergy shall issue a report to the Customer within sixty (60) calendar days of the receipt of an executed ILSA, or at a later date as the Parties may mutually agree. If FirstEnergy is unable to complete such study in the allotted time, FirstEnergy shall provide an explanation to the Customer regarding the cause(s) of such delay and a revised completion date reflecting the exercise of diligence by FirstEnergy and a revised study cost estimate. Upon completion of the ILS, the Customer shall reimburse FirstEnergy for the cost of the ILS.

- 5.4 **Detailed Load Study (“DLS”)**: Following the completion of the ILS, if needed, and Customer’s expressed desire to proceed with the project in writing within thirty (30) calendar days of receiving the ILS, FirstEnergy shall provide the Customer a DLS Agreement (“DLSA”) within thirty (30) calendar days of receiving the Customer’s notification. The DLSA shall provide scope of work and the payment terms for the actual cost of the DLS. The Customer shall deliver an executed DLSA to FirstEnergy

within thirty (30) calendar days following its receipt, together with required technical data. The DLS shall determine the details and estimated cost of FirstEnergy facilities necessary for establishing or modifying a Delivery Point, and any FirstEnergy system additions/upgrades and Customer additions/upgrades needed. FirstEnergy shall complete the study and issue a DLS report to the Customer within sixty (60) calendar days after receipt of an executed DLSA and necessary data, or at a later date as the Parties may mutually agree. If the Customer fails to return an executed DLSA within thirty (30) calendar days of receipt or at a later date as the Parties mutually agree, FirstEnergy will deem the study request to be withdrawn. The Customer may withdraw its study request at any time by written notice of such withdrawal to FirstEnergy. If FirstEnergy is unable to complete such study in the allotted time, FirstEnergy shall provide an explanation to the Customer regarding the cause(s) of such delay and a revised completion date reflecting the exercise of diligence by FirstEnergy and a revised study cost estimate. Upon completion of the DLS, the Customer shall reimburse FirstEnergy for the cost of the DLS.

- 5.5 **Modifications to Study Request:** During the course of an ILS or DLS, either the Customer or FirstEnergy may identify desirable changes in the planned facilities that may lower the costs and/or increase the benefits (including reliability) of the planned facilities. Changes proposed by FirstEnergy or Customer must be accepted by the other Party; provided, however, that (i) such acceptance may not be unreasonably withheld, and (ii) changes which are intended to lower the costs and/or increase the benefits (including reliability) of the planned facilities will not be considered modifications that would void the Application. If the revised plan and study schedule are acceptable to both FirstEnergy

and the Customer, FirstEnergy will proceed with any necessary restudy. The costs of any additional studies resulting from a modification proposed by FirstEnergy or Customer shall be borne by the Party that proposed the modification.

5.6 **Construction:** The Customer shall notify FirstEnergy, in writing, of its intent to proceed with the construction of the proposed facilities identified in the DLS within sixty (60) calendar days of receiving the DLS, or another mutually agreed upon date. Should Customer elect to proceed with construction, FirstEnergy shall provide the Customer with a Construction Service Agreement (“CSA”) specifying the terms and conditions of construction within thirty (30) calendar days after receipt of the Customer’s written notice.

5.6.1 **Response to CSA:** Within sixty (60) calendar days of receipt thereof, the Customer shall either execute and return the CSA to FirstEnergy for filing with FERC or, alternatively, shall request dispute resolution under Article 11 or request that the CSA be filed unexecuted with FERC. FirstEnergy shall file the CSA, in executed or unexecuted form, as applicable, with FERC within ten (10) calendar days following receipt of the executed CSA from Customer or Customer’s request that the CSA be filed unexecuted.

5.6.2 **Deferral of Construction:** In the event that the Customer has requested dispute resolution under Article 11 or that the CSA be filed with FERC unexecuted, and unless otherwise agreed by the Customer and FirstEnergy, FirstEnergy shall defer the initiation of design, procurement and construction of any facilities subject to the CSA until all pending disputes are resolved.

5.6.3 **Withdrawal of Application Through Customer’s Failure to Act:** If the Customer does not notify FirstEnergy of its intent to proceed with the construction

of the facilities within the time period provided in Section 5.6.1, unless otherwise agreed to by the Parties, FirstEnergy may, at its option, elect to have the Application treated as having been withdrawn. In that event, any and all costs incurred by FirstEnergy in connection with the ILS and/or DLS for such Application shall be reimbursed by Customer to FirstEnergy to the extent not already paid by the Customer. Unless otherwise agreed by the Parties, the Customer shall not be responsible for any design, procurement, or construction costs incurred by FirstEnergy unless the Customer has executed a CSA.

5.6.4 Withdrawal of Application Through FirstEnergy's Failure to Act: If FirstEnergy does not file the CSA with FERC in executed or unexecuted form within the time period set forth in Section 5.6.1, unless otherwise agreed to by the Parties, Customer may, at its option, elect to have the Application treated as having been withdrawn. In that event, any and all costs incurred by Customer in connection with such Application shall be reimbursed by FirstEnergy to Customer.

5.7 Responsibility for Delivery Point Costs: The purpose of this Section 5.7 is to provide guiding principles regarding cost responsibility for services provided under a CSA under this Article 5.

5.7.1 In-Line Facilities: Except as provided by subsection 5.7.3 below, switches, conductors and associated equipment, including support structures for such facilities, that are operated in-line with the FirstEnergy system and are necessary to establish, support, or expand a Delivery Point under this Agreement shall be provided, owned, operated and maintained by FirstEnergy. In-line facilities are those facilities that provide network benefits to the FirstEnergy system and that are

located on FirstEnergy's side of the Delivery Point. The costs associated with such in-line and associated facilities will be "rolled-in" to FirstEnergy's rates for wholesale service taken over transmission or distribution facilities and will not be directly assigned to Customer.

5.7.2 **In-Line Facility Design:** All in-line Delivery Point facilities to be rolled into FirstEnergy rates shall be designed and installed in accordance with the then applicable FirstEnergy standards applicable to FirstEnergy and its affiliates, and to FirstEnergy's non-affiliate customers, including those set forth in the FirstEnergy Document. If the Customer requests in-line facilities different from those required by the FirstEnergy system standards, the Customer will be required to pay the incremental installed cost, if any, of those facilities above the cost of the facilities that would have been required by the FirstEnergy system standards, including taxes applicable on contributions-in-aid of construction ("CIAC"). All in-line facilities shall provide at least the capacity and system protective capabilities of those required by the FirstEnergy system standards.

5.7.3 **Two-Way Supply:** When FirstEnergy system standards, including those set forth in the FirstEnergy Document, require the FirstEnergy system to loop through the Customer's substation (two-way supply), all substation equipment that is part of the networked FirstEnergy system, including buss work, switches/breakers and other facilities located in the Customer's substation shall be constructed and owned by the Customer in accordance with the FirstEnergy system standards, and the cost thereof shall be the Customer's responsibility, unless such equipment provides network benefits to the FirstEnergy system, in

which case the equipment will be owned by FirstEnergy and the cost thereof shall be FirstEnergy's responsibility. FirstEnergy shall retain operational control, and any access required for such operation, of such facilities and, unless otherwise agreed, the Customer shall, in coordination with FirstEnergy, maintain the buss work, switching/breakers and other facilities that are part of the networked FirstEnergy system and located in the Customer's substation, in accordance with the FirstEnergy system standards and practices, and the cost thereof shall be the Customer's responsibility, unless the equipment provides network benefits to the FirstEnergy system, in which case the cost thereof shall be FirstEnergy's responsibility.

5.7.4 **Load-Side Facilities:** Unless otherwise agreed, all tap lines and distribution substations and other facilities on the Customer's side of the Delivery Point (other than metering), not located in-line with the FirstEnergy system, shall be provided, owned, operated and maintained by the Customer, and the cost thereof shall be the responsibility of the Customer.

5.7.5 **Single-Owner Design Basis:** The location and design of the new Customer Delivery Point(s) shall be determined based upon a hypothetical single owner concept, i.e. as if the FirstEnergy system and the applicable Customer's facilities were all owned by either FirstEnergy or the Customer, but not both. Accordingly, the "single owner" solution shall be based upon the lowest aggregate construction cost to the Customer and FirstEnergy collectively, without regard to cost allocation principles set forth in this Section 5.7, but consistent with the FirstEnergy system standards and Good Utility Practice. FirstEnergy and the Customer shall mutually

agree upon the location and design of new Customer Delivery Points consistent with the single owner concept.

5.7.6 **System Upgrades:** System upgrades on the FirstEnergy system necessary as a result of a Customer Delivery Point request shall be constructed, owned, operated and maintained by FirstEnergy, and the cost thereof shall be rolled into FirstEnergy's wholesale transmission or distribution rates, and shall not be directly assigned to the Customer. System upgrades on the Customer's system necessary as a result of FirstEnergy system upgrades shall be constructed, owned, operated and maintained by the Customer at the Customer's cost. If service to an existing Delivery Point would be affected or discontinued by virtue of the retirement, removal, or relocation of a FirstEnergy line, FirstEnergy will work with the Customer to provide comparable service based on the single-owner design basis set forth in Section 5.7.5, using reasonable efforts to provide similar service at a new or modified Delivery Point.

5.7.7 **Sunk Cost Recovery:** Customer shall reimburse FirstEnergy for costs incurred in planning or constructing facilities at Customer's request if Customer fails to take the service requested after execution by the Customer of the CSA. In such a case, Customer will reimburse FirstEnergy to the extent that FirstEnergy incurs the cost of construction and (a) Customer fails to construct a substation or other necessary and agreed upon facilities on the Customer side of the Delivery Point, or otherwise fails to perform under the applicable CSA, or (b) notwithstanding Customer's or Customer's member's full performance under the applicable CSA, all or substantially all of any proposed new or additional load greater than 5 MW of a

single retail customer for which the Delivery Point was specifically requested, fails to be added, such that the requested new or expanded Delivery Point is no longer required (Sunk Costs). FirstEnergy shall have the right to require financial security (letter of credit or other liquid security) from Customer to support Customer's payment obligations under this paragraph if and to the extent that FirstEnergy determines the at-risk cost to exceed Customer's level of unencumbered credit under FirstEnergy's normal credit review procedures and standards.

5.7.8 **Generator Interconnections:** The costs of facilities necessary to interconnect, and the application, agreement, process and other requirements for the interconnection of the Customer's generation or the generation of a third-party connected to the Customer's system to FirstEnergy facilities is beyond the scope of this Agreement and shall be addressed in accordance with the rules applicable to generator interconnections.

ARTICLE 6: METERING

6.1 **Measurement of Load at Each Delivery Point:** Electric power and energy delivered under this Agreement shall be measured by suitable metering equipment as described below. All metering quantities shall be measured at the Delivery Point and metering accuracy shall meet the required ANSI standards and PJM standards, as set forth in the PJM Tariff and PJM Manuals. The location of the meter shall be called the Metering Point. Based upon mutual agreement between the Parties, the Metering Point can be at a location different from the Delivery Point, such as at a location on the low voltage side of a substation voltage step-down transformer, in which event metered values shall be

adjusted to the Delivery Point using mutually acceptable compensation factors. The Parties may use metering configurations that require the use of compensation factors unless it shall be commercially unreasonable to do so; provided that nothing herein shall be intended to require modification of existing metering configurations that are based on the use of compensation factors. The Customer's load, kW, kWh and kVAr at each Delivery Point shall be measured on an integrated hourly basis, by revenue grade metering equipment. The metering equipment and all measurements by such equipment shall be as needed for all settlement purposes under this Agreement, the PJM Tariff, the PJM Manuals, and in accordance with FirstEnergy's then effective standards and practices. Peak load measurements at a Delivery Point shall be adjusted to eliminate the incremental effects of any load transfers to such Delivery Point from another Delivery Point resulting from supply outages or planned maintenance by FirstEnergy affecting the other Delivery Point, or planned maintenance of the Customer's system conducted with FirstEnergy's consent affecting the other Delivery Point. At points where power may flow to and from the Customer, separate measurements shall be obtained for each direction of flow. Any necessary metered data shall be made available with such frequency and at such times as may be reasonably required by the Customer, FirstEnergy or PJM in suitable electronic format.

- 6.2 **Metering Equipment:** FirstEnergy shall own, operate and maintain the revenue metering equipment as provided in the FirstEnergy Document or required by PJM related to each Delivery Point. The costs associated with such metering equipment, including meter operation and maintenance, and meter reading and billing, shall be recovered from the Customer through the Customer Charges provided under Section 8.1 or FirstEnergy

transmission rates approved by FERC. Costs associated with additional metering or telecommunication equipment requested by the Customer shall be paid by the Customer.

6.3 **Real Time Data**: If FirstEnergy, Customer, or PJM requires real-time load or facility status information from any Delivery Point, the Parties shall cooperate, to the extent necessary, in order that such monitoring and telecommunications equipment, as shall be needed for such purpose may be installed and maintained during normal business hours common to FirstEnergy and Customer.

6.4 **Data Communications**: At the request of Customer, FirstEnergy will cooperate with Customer on the installation of any additional communication equipment to allow for connection of the metering to the Customer's real time SCADA system equipment or other monitoring equipment, provided that such equipment connections and communications can be accomplished in a manner that does not interfere with the operation of FirstEnergy equipment or fulfillment of any statutory or contractual obligation. If the potential for such interference exists, FirstEnergy will work with the Customer, through reasonable measures, to resolve such metering and/or communications issues. FirstEnergy will make reasonable efforts to send Customer meter data at the Customer's request in the event of a communication failure and provided FirstEnergy is in possession of the data at the time of the request.

6.5 **Meter Security**: All meters and test switches, whether provided by FirstEnergy or Customer, shall be sealed and the seals shall be broken only when the meters are to be tested, adjusted, repaired or replaced. The other Party shall be provided as much advance notice as is practicable in the circumstances when the facilities of that Party are to be entered or the seals of any meter are to be broken, and such Party shall be afforded the

opportunity to be present during such test, adjustment, repair, or replacement.

- 6.6 **Meter Testing:** FirstEnergy shall test the metering equipment at suitable intervals and its accuracy of registration shall be maintained in accordance with Good Utility Practice. At the request of the Customer, a special test shall be made, but if less than two percent inaccuracy is found, the requesting party shall pay for the test. Representatives of the Parties may be present at all routine or special tests and whenever any readings for purposes of settlement are taken from meters not having an automatic record. If any test of metering equipment discloses an inaccuracy exceeding two percent, the accounts of the Parties shall be adjusted for the period, not exceeding nine (9) months, during which such inaccuracy is estimated to have existed. Should any metering equipment fail to register, the amounts of energy delivered shall be estimated from the best available data.

ARTICLE 7: COMPLIANCE WITH PJM TARIFF AND PJM MANUALS

- 7.1 **Definitions:** Capitalized terms not defined in this Article 7 shall have the meaning ascribed to them by the PJM Tariff and/or the applicable PJM Manuals.
- 7.2 **General:** Each Load Serving Entity ("LSE"), as that term is defined under the PJM Tariff and used by PJM, is responsible for complying with all PJM Tariff and PJM Manual requirements. Unless otherwise agreed, FirstEnergy shall have only such responsibilities to assist Customer in meeting its obligations, as shall be required pursuant to the PJM Tariff, PJM Manuals and this Agreement. FirstEnergy shall cooperate with PJM and Customer (or Customer-designated Scheduling Agent) to the extent necessary and appropriate to ensure that data is available to PJM for Customer's hourly energy assignment, and peak load contributions for use in calculating transmission charges and generation capacity obligations as discussed below. Hourly energy obligations, peak load contribution and

network service peak load values as described further in this Article 7 will be derived using methods referenced in Attachment M to the PJM Tariff. FirstEnergy will also provide Customer the information provided to PJM annually under Sections 7.2 and 7.3.

7.3 **Network Service Peak Load (“NSPL”)**: In December of each calendar year, FirstEnergy shall provide to PJM the zonal coincident peak (“1CP” or “NSPL”) of each LSE within the ATSI pricing zone in the hour of the ATSI peak load for the twelve (12) consecutive months ending on October 31 of the year prior to the calendar year during which the NSPL will be used. The network service peak load ratio share shall be used as the transmission service billing determinant for transmission service charges and annual FTR allocations. If the basis of NSPL and FTR allocation determinations is changed, FirstEnergy shall cooperate with PJM and the Customer to the extent necessary and appropriate to make available such data as is needed. In order to verify the data, FirstEnergy shall provide the data to the Customer prior to the annual submission to PJM, and Customer and FirstEnergy shall work in good faith to resolve any disagreement about the data (with any unresolved dispute being subject to dispute resolution under Article 11).

7.4 **Peak Load Contribution (“PLC”)**: FirstEnergy shall provide to PJM the PLC of each LSE in the ATSI pricing zone on a forecasted annual and on a day-ahead basis for the purpose of calculating the LSE's capacity obligation to serve its load. Pursuant to PJM's Tariff, FirstEnergy will be annually informed of the day and hour of the five highest PJM unrestricted daily peaks (“5CP”) for the period described in the PJM Tariff. FirstEnergy will then determine each LSE's contribution to the 5CP loads of the ATSI control zone. This load ratio will be applied to the forecasted ATSI control zone load, adjusted for weather normalization and forecasted load growth, to determine each LSE's peak load

contribution. Pursuant to PJM's Tariff, this information may be utilized in the development of each LSE's capacity obligation. In order to verify the data, FirstEnergy shall provide the PLC information to the Customer prior to submission to PJM, and Customer and FirstEnergy shall work in good faith to resolve any disagreement about the data (with any unresolved dispute being subject to dispute resolution under Article 11). If the basis used to determine PLC and relative determinations of Customer load obligations is changed, FirstEnergy shall cooperate with PJM and the Customer to the extent necessary and appropriate to make available such data as is needed.

- 7.5 **Hourly Energy Requirements:** FirstEnergy will also provide to PJM each working day, via PJM's InSchedule system, the initial hourly energy assignment (load plus losses) for each LSE in the ATSI zone. The data will be provided per PJM protocols and timelines which subsequently will also be available for the Customer to view through PJM web-based applications. Pursuant to PJM's Tariff, such data may be used to calculate each LSE's obligation for each hour for the next day. Unless a transfer of load obligation from or to the Customer (LSE) to or from another Customer (LSE) is recognized, the obligation will not change daily. Within two months of the end of each settlement month, FirstEnergy shall validate the LSE's hourly load and submit the changes via the InSchedule system, as appropriate, to enable PJM to resettle the respective LSE's account. If the basis used by PJM to receive hourly energy assignments for the LSE, or to calculate each LSE's obligation for each hour for the next day, is changed, FirstEnergy shall cooperate with PJM and the Customer to the extent necessary and appropriate to make available such data as needed. The Customer may submit hourly load data to FirstEnergy to replace estimated load data determined by FirstEnergy, and FirstEnergy shall use the Customer's data when

practicable.

- 7.6 **Behind the Meter Generation:** FirstEnergy shall cooperate with PJM and the Customer to ensure that PJM receives generator output meter information it requires for the following two categories of behind-the-meter generators operating within the combined service territories of the FirstEnergy operating companies.

7.6.1 **Generators that do not participate in the PJM Markets:** The generating party shall comply with the PJM generator data requirements for generators that do not participate in the PJM Markets.

7.6.2 **Generators that do participate in the PJM Markets:** The generating party shall comply with the PJM interconnected generator data requirements for the generators that participate in the PJM Markets.

- 7.7 **LMP Node/Zone Aggregator:** Pursuant to PJM's Tariff, LSEs in PJM may choose to have PJM use the zonal average load weighted LMP used as the basis for energy delivery pricing or request a specific load bus aggregate prior to the annual FTR allocation processes. It is the responsibility of the LSE to contact PJM in a timely manner if a specific load aggregation is desired. Pursuant to PJM's Tariff, PJM may in turn request FirstEnergy to work with the LSE to determine the appropriate configuration of the load bus aggregate. FirstEnergy will cooperate with Customer in order to derive an LMP load bus aggregate, using existing transmission planning case studies to determine the percent of the load at each load bus that is served by the LSE. If FirstEnergy determines that existing studies are not sufficient and additional study development is needed to satisfy the Customer's request, the Customer may be asked to execute a study agreement and reimburse FirstEnergy for the study-related costs. The LSE may provide such data to

PJM and, based on results from PJM, the LSE will choose whether to utilize the aggregate or the FirstEnergy zonal weighted average LMP price.

ARTICLE 8: COMPENSATION

8.1 **Compensation for Wholesale Service:** The Customer shall pay FirstEnergy only the rates and charges specified in this Section 8.1, and accepted or approved by FERC, and for charges pursuant to Section 3.9 as compensation for Services provided by FirstEnergy to the Customer pursuant to this Agreement.

8.1.1 **Wholesale Distribution Rates:** The Customer shall pay wholesale distribution charges using the rates for Services taken over distribution facilities as specified in Appendix 1.

8.1.2 **Customer Charge:** The Customer shall pay the following monthly Customer Charges for each Delivery Point, as applicable.

8.1.2.1 For Delivery Points at 69 kV and above: No charge.

8.1.2.2 For Delivery Points below 69 kV and at 23 kV or above:
\$85.00/Delivery Point per month.

8.1.2.3 For Delivery Points below 23 kV:
\$38.00/Delivery Point per month

8.2 **Losses:** The Customer's load shall be adjusted for settlement purposes under Section 8.1.1 for wholesale distribution charges to include both FirstEnergy's transmission and distribution losses. Distribution loss factors are specified in Appendix 1. Transmission loss factors are the loss factors for Transmission Service and Network Integration Transmission Service as defined by the PJM Tariff, and they shall be provided in Attachment H-21 to the PJM Tariff for the ATSI zone. To the extent Customer's load at

any Delivery Point is supplied from behind-the-meter generation, losses shall be assessed only for the net load delivered to such Delivery Points by FirstEnergy.

8.3 **Billing and Payments:** Bills shall be rendered as soon as practicable in the month following the calendar month in which Service was provided or expenses incurred, and shall be due and payable, unless otherwise agreed upon, within thirty (30) days of receipt of such invoices. Payment to FirstEnergy shall be made by electronic transfer or such other means as shall cause such payment to be available for the use of the payee. Interest on unpaid amounts shall accrue daily at the then current prime interest rate (the base corporate loan interest rate) published in the Wall Street Journal, or, if no longer so published, in any mutually agreeable publication, plus 2% per annum, but will in no event exceed the maximum interest rate allowed pursuant to Ohio law, and shall be payable from the due date of such unpaid amount and until the date paid.

8.4 **Disputes:** All invoices (whether or not disputed) shall be paid in full under the conditions specified in this Article 8. Disputes will be submitted for settlement under the procedures specified under Article 11. Any portion of the invoice in dispute shall be paid into an independently administered escrow account to be established with a qualified depository institution, where the funds will be held pending resolution of the dispute. Within thirty (30) calendar days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount determined to be due, by full or partial disbursement of the funds held in escrow, together with interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19(a)(2)(iii). Any amounts remaining in the escrow account following such disbursement shall be made available to the Party that made the payments into the escrow account.

8.5 **Taxes:** It is expressly agreed by the Parties that, as part of any compensation to be paid under this Agreement, if any, during the term hereof there should be levied and/or assessed against either Party any direct tax, including, but not limited to sales, excise or similar taxes (other than taxes based on or measured by net income), by any taxing authority on the power and/or energy manufactured, generated, produced, converted, sold, purchased, transmitted, interchanged, exchanged, exported or imported by the supplying Party to the other Party, such supplying Party shall be fully compensated by the other Party for such direct taxes. Upon the timely request by (and at the sole expense of) the other Party, the supplying Party shall appeal, protest, seek abatement or, or otherwise contest any tax imposed by any taxing authority for which the other Party may be required to reimburse the supplying Party. The other Party shall pay to the supplying Party on a periodic basis, as invoiced by the supplying Party, the documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The supplying Party reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including settlement of claim, provided the supplying Party shall cooperate and consult in good faith with the other Party regarding the conduct of such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by the other Party to the supplying Party for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, the other Party will be responsible for all taxes, interest, and penalties, other than any penalties attributable to any delay caused by the supplying Party.

ARTICLE 9: OPERATING COMMITTEE

- 9.1 **Purpose:** An Operating Committee consisting of a representative and alternate from each Party familiar with the day-to-day operations of their respective systems shall be established to coordinate and implement, on an ongoing basis, the terms and conditions of this Agreement, including planning, operating, scheduling, redispaching, curtailments, control requirements, technical and operating provisions, integration of equipment, hardware and software, and other considerations. Each Party shall evidence its appointments to the Operating Committee by written notice to the other Party and, by similar notice, each Party may change its representative and/or alternate to the Operating Committee.
- 9.2 **Membership:** Each member and alternate shall be a responsible person working with the day-to-day operations of their respective system. The Operating Committee shall represent FirstEnergy and Customer in all matters arising under this Operating Agreement and which may be delegated to it by mutual agreement of the Parties hereto.
- 9.3 **Meetings:** The Operating Committee shall meet or otherwise conference at the request of either Party upon reasonable notice and each Party may place items on the meeting agenda. All proceedings of the Operating Committee shall be conducted by its members taking into account the exercise of Good Utility Practice.
- 9.4 **Operating Committee Disputes:** If the Operating Committee is unable to agree on any matter coming under its jurisdiction within 30 days after it is presented, that matter shall be submitted for settlement under the procedures specified in Article 11, or otherwise, as mutually agreed by the Customer and FirstEnergy.

ARTICLE 10 - FINANCIAL RESPONSIBILITY

- 10.1 **Allocation of Responsibility:** Except to the extent otherwise required by law, each Party (the “Indemnifying Party”) shall defend, indemnify and hold harmless the other Party (the “Indemnified Party”), and the Indemnified Party’s officers, shareholders, members, managers, representatives, directors, agents and employees, from and against any and all claims and/or liabilities for losses, costs or expenses (including to third parties), damage to property, injury to or death of any person, or any other liability incurred by the Indemnified Party, including reasonable attorneys’ fees(each a “Covered Claim”), in any manner directly or indirectly arising from or contributed to by the provision of service or the construction of facilities by the Indemnifying Party under this Agreement, except to the extent that the losses, expenses or damage were caused wholly or in part by any negligence or willful misconduct of the Indemnified Party. The Indemnified Party agrees to provide the Indemnifying Party with notice of any claim made against the Indemnified Party for which the Indemnifying Party may be responsible under this Section. To the extent that Customer and FirstEnergy are jointly liable for a Covered Claim, then liability for such Covered Claim shall be allocated between them in accordance with applicable laws of comparative fault or joint liability in effect at the time liability under a Covered Claim arises.
- 10.2 **Consequential Damages:** No Party nor any of its affiliates, members, shareholders, officers, directors, employees, agents, successors or assigns shall be liable under this Agreement, whether in contract, tort (including negligence and strict liability) or otherwise, to the other Party or any of its affiliates, members, shareholders, officers, directors, employees, agents, successors or assigns for incidental, punitive, special,

indirect, multiple, exemplary or consequential damages (including without limitation attorneys' fees, litigation costs, lost profits or revenues, or loss of good will) connected with or resulting from performance or non-performance of this Agreement.

ARTICLE 11: ARBITRATION

- 11.1 **Submission to Arbitration:** No dispute arising under this Agreement may be submitted to arbitration unless the Parties have made a good faith attempt to resolve such dispute by referral to the Operating Committee. The Operating Committee will seek to resolve the dispute within 30 days unless otherwise agreed by the Parties. In the event the dispute is not resolved by the Operating Committee, the dispute may, if both Parties agree, be submitted to binding arbitration in the manner hereinafter provided. Arbitration is limited to disputes between the Parties with respect to (1) any matter herein specifically made subject to arbitration, (2) any question of operating practice involved in performance of this Agreement, (3) any question of fact involved in the application of provisions of this Agreement, or (4) the interpretation of any provision of this Agreement. In the event the matter is not submitted to binding arbitration, either Party may invoke other dispute resolution procedures to the full extent permitted by law.
- 11.2 **Appointment of Arbitrators:** In the event that the Parties determine that a disagreement should be resolved through binding arbitration, the Parties shall set forth in writing the subject or subjects to be arbitrated, and the Parties thereupon shall endeavor to agree upon and appoint one person to act as sole arbitrator. If the Parties fail to agree on an arbitrator within a period of fifteen (15) business days from the receipt of the original notice, either Party may call for appointment of a board of arbitrators skilled with respect to matters of the character involved in the disagreement, naming one arbitrator in such notice. The

other Party shall, within ten (10) business days after the receipt of such call, appoint a second arbitrator, and the two arbitrators so appointed shall choose and appoint a third arbitrator. In case such other Party fails to appoint an arbitrator within said ten (10) business days, or in case the two so appointed fail for ten (10) business days to agree upon and appoint a third, the Party calling for the arbitration, upon five (5) business days' written notice delivered to the other Party, shall apply to the person who at the time shall be the most senior Judge of a United States District Court having jurisdiction for appointment of the second or third arbitrator, as the case may be.

11.3 **Arbitration:** The sole arbitrator, or the board of arbitrators, shall afford adequate opportunity to the Parties to present information with respect to the question or questions submitted for arbitration and may request further information from either or both Parties. The findings and award of the sole arbitrator or of a majority of the board of arbitrators shall be final and conclusive with respect to the question or questions submitted for arbitration and shall be binding upon the Parties, and may be challenged only in the manner and to the extent permitted by Ohio law. If there is a single arbitrator, the Parties shall split evenly the costs of a single arbitrator, unless the award shall specify a different division of the costs. If there is a board of arbitrators, each Party shall pay for the services and expenses of the arbitrator appointed on its behalf, and they shall split evenly the costs of the neutral arbitrator, unless the award shall specify a different division of the costs. All other costs incurred in connection with the arbitration shall be paid by the Party incurring them.

11.4 **FERC Jurisdiction:** The determination of a matter in dispute pursuant to arbitration hereunder shall not operate to limit or displace FERC's statutory jurisdiction over any such

matter. Accordingly, following the completion of arbitration procedures, either Party may seek FERC review of the arbitration decision, but only to the extent the arbitration decision affects matters subject to FERC's statutory jurisdiction. Nothing herein shall affect the statutory exemption from FERC jurisdiction available to Customer under Section 201(f) of the Federal Power Act.

ARTICLE 12: TERM AND TERMINATION OF AGREEMENT

- 12.1 **Effective Date, Terms and Termination:** This Agreement shall be effective as of the date first written above, or such later date as the last necessary regulatory approval hereof shall be obtained (unless an earlier date is specified by the regulatory authority having jurisdiction), and shall remain in effect until the date falling on the fifth (5th) anniversary of the date hereof (the "Initial Term"). The Agreement will remain in effect thereafter for successive twelve (12) month periods ("Renewal Terms") unless it is terminated in whole pursuant to Section 12.2 or 12.4 or in part pursuant to Section 12.3.
- 12.2 **Notice of Termination:** Either Party may terminate this Agreement effective after the Initial Term or the end of a Renewal Term by providing to the other Party at least twelve month's advance written notice of its intent to terminate this Agreement.
- 12.3 **Withdrawal of Member of Customer:** In the event any member of the Customer receiving Services provided by FirstEnergy pursuant to this Agreement ceases, for any reason, to be a member of the Customer or take power supply from the Customer, then, upon FirstEnergy's receipt of written notice from the Customer of the relevant member's cessation of membership or power supply agreement, the Customer shall be responsible for any costs incurred by FirstEnergy related to the member's cessation. Further, the Parties

shall cooperate and coordinate to the extent necessary in order to ensure that the member's load is properly accounted for after cessation. The Parties agree to promptly modify Appendix 1 to this Agreement to remove the relevant Delivery Point(s) therefrom following FirstEnergy's receipt of the notice from the Customer regarding the municipal utility's cessation of membership.

- 12.4 **Other Permitted Termination:** Notwithstanding Sections 12.1 and 12.2, this Agreement may be terminated earlier (a) if the Parties mutually agree or (b) as otherwise expressly provided for in this Agreement following the expiration of any required notice and opportunity to cure. Both Parties reserve their right to seek relief from FERC or a court of competent jurisdiction with respect to any such termination.

ARTICLE 13: REGULATORY AUTHORITIES

- 13.1 **Regulatory Authorities:** This Agreement is made subject to the jurisdiction of any governmental authority or authorities having jurisdiction over the Parties, the systems of the Parties, this Agreement and the subject matter hereof. Nothing contained in this Agreement shall be construed as affecting in any way, the right of a Party furnishing service under this Agreement to unilaterally make application to FERC for a change in the rates and charges or other terms and conditions of this Agreement under Section 205 of the Federal Power Act and pursuant to the FERC's Rules and Regulations promulgated thereunder or any Party receiving service to file a complaint seeking changes in rates and charges or other terms and conditions of this Agreement under Section 206 of the Federal Power Act.
- 13.2 **Adverse Regulatory Change:** Following execution of this Agreement, FirstEnergy shall

file it with FERC. The Customer shall not protest the filing and FirstEnergy may represent in its filing that the Customer supports the filing. Each Party hereby agrees to not, directly or indirectly, aid or support any person or entity that protests or intervenes in such filing before FERC. Any material changes or conditions imposed by the FERC or any other governmental authority with competent jurisdiction in connection with such submission or otherwise in respect of this Agreement, any of which are unacceptable to a Party after the Parties' good faith attempt to negotiate a resolution to such objectionable change or condition, shall be cause for termination of this Agreement upon thirty (30) days' prior written notice by the non-consenting Party to the other parties hereto.

ARTICLE 14: OTHER

- 14.1 **Assignment**: This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties. Successors and assigns of PJM shall become signatories to this Agreement for the limited purpose described herein applicable to PJM. This Agreement shall not be assigned by any Party without the written consent of the other Party, which consent shall not be unreasonably withheld or delayed, except that consent shall not be required if the assignment is to a successor to which substantially all of the business and assets of such Party shall be transferred or to an affiliate of the assigning Party for the purposes of a corporate restructuring.
- 14.2 **Network Integration Transmission Service**: Customer further agrees to enter into all agreements necessary for the Customer to receive Network Integration Transmission Service from PJM, including but not limited to a Network Integration Transmission Service Agreement between the Customer and PJM.

- 14.3 **Waivers**: Any waiver at any time by either Party of its rights with respect to default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not be deemed a waiver with respect to any subsequent default or matter. Any delay, short of the statutory period of limitation, in asserting or enforcing any right under this Agreement, shall not be deemed a waiver of such right.
- 14.4 **Liability**: Nothing in this Agreement shall be construed to create or give rise to any liability on the part of PJM, and the Parties expressly waive any claims that may arise against PJM under this Agreement. The Parties acknowledge and understand that the signature of the authorized representative of PJM on this Agreement is for the limited purpose of acknowledging that a representative of the PJM has read the terms of this Agreement. The Parties and PJM further state that they understand that the FERC desires that the Parties keep PJM fully apprised of the matters addressed herein as well as any reliability and planning issues that may arise under this Agreement, and that the signature of the PJM authorized representative shall not in any way be deemed to imply that the PJM is taking responsibility for the actions of any Party, that PJM has any affirmative duties under this Agreement, or that PJM is liable in any way under this Agreement.
- 14.5 **Choice of Law**: The validity and meaning of this Agreement shall be governed by and construed in accordance with federal law where applicable and, when not in conflict with or preempted by federal law, by the applicable laws of the State of Ohio.
- 14.6 **Counterparts**: This Agreement may be executed in two or more counterparts and each such counterpart shall be deemed an original and all such counterparts together shall constitute one and the same instrument.
- 14.7 **Confidentiality**: Except as otherwise provided by law, no Party shall disclose to third

parties (which term does not include attorneys and consultants, who shall be required to comply with this Section) Confidential Information obtained from the other Party pursuant to this Agreement except in order to comply with the requirements of FERC, NERC, ReliabilityFirst, PJM, or other governmental authority. Each Party shall use reasonable efforts to prevent or limit the disclosure required to third parties under this Section. For the purpose of this Section, "Confidential Information" shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection or otherwise. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and customer-specific load data that constitutes a trade secret. Confidential Information shall also include any other information that is provided and identified by a Party as "Critical Energy Infrastructure Information," as that term is defined in 18 C.F.R. Section 388.113(c).

- 14.8 **Regulatory Reporting:** Each Party shall provide information reasonably requested by the other Party to satisfy regulatory reporting requirements, subject to Section 14.7.

ARTICLE 15: NOTICES

- 15.1 Any notice given pursuant to this Agreement shall be in writing as follows:

If to FirstEnergy:

Manager, FERC & Wholesale Connection Support
FirstEnergy Service Company
76 South Main Street

Akron, Ohio 44308

Attorney for FERC & Wholesale Connection Support
Legal Department
FirstEnergy Service Company
76 South Main Street
Akron, Ohio 44308

If to Customer:

American Municipal Power, Inc.
Director of Market Regulatory Affairs
1111 Schrock Road, Suite 100
Columbus, OH 43229
Main Office Phone: (614) 540-1111
Fax: (614) 540-1080

And

American Municipal Power, Inc.
SVP and General Counsel
1111 Schrock Road, Suite 100
Columbus, OH 43229
Main Office Phone: (614) 540-1111
Fax: (614) 540-1080

If to PJM:

Vice President - Government Policy PJM
Interconnection, L.L.C.
1200 G Street, NW, Suite 600
Washington, D.C. 20005

And

General Counsel
PJM Interconnection, L.L.C. 2750 Monroe
Blvd.
Audubon, PA 19403

- 15.2 The above names and addresses of any Party may be changed at any time by notice to the other Party.

IN WITNESS WHEREOF, the Parties executed by their respective officers lawfully authorized so to do.

AMERICAN MUNICIPAL POWER, INC.

By: /s/ Marc S. Gerken, P.E.

Name: Marc S. Gerken, P.E.

Title: President/CEO

Approved as to Form:

By: /s/ Lisa G. McAlister

Name: Lisa G. McAlister

Title: SVP & General Counsel for Regulatory Affairs

FIRSTENERGY SERVICE COMPANY

(On Behalf Of American Transmission Systems, Incorporated, The Cleveland Electric Illuminating Company, Ohio Edison Company, Pennsylvania Power Company and The Toledo Edison Company)

By: /s/ Richard A. Ziegler

Name: Richard A. Ziegler

Title: Director – FERC & RTO Technical Support

SA NO. 2852

The signature below of the authorized representative of PJM Interconnection, L.L.C. is for the limited purpose of acknowledging that a representative of PJM has read this Agreement as of 7th day of December (Month), 2018.

PJM INTERCONNECTION, L.L.C.

By: /s/ Kenneth S. Seiler

Name: Kenneth S. Seiler

Title: Executive Director, System Planning

SA NO. 2852

APPENDIX 1
Delivery Points, Wholesale Distribution Rates, Losses

Name	Nominal Voltage (kV)	Monthly Distribution Charge (\$/kW)*	Distribution Losses (%)**
Amherst	69	N/A	N/A
Beach City	12	\$0.95	3.9%
Bowling Green***	a) 69	N/A	N/A
	b) 69	N/A	N/A
	c) 12	\$1.54	3.9%
	d) 69	N/A	N/A
Bradner	12	\$0.24	3.9%
Brewster	69	N/A	N/A
Bryan (back-up)	69	N/A	N/A
Columbiana	a) 69	N/A	N/A
	b) 69	N/A	N/A
Custar	12	\$2.73	3.9%
Cuyahoga Falls	a) 138	N/A	N/A
	b) 138	N/A	N/A
Edgerton	69	N/A	N/A
Ellwood City	69	N/A	N/A
Elmore	a) 69	N/A	N/A
	b) 69	N/A	N/A
Galion	a) 69	N/A	N/A
	b) 69	N/A	N/A
Genoa	a) 69	N/A	N/A
	b) 69	N/A	N/A
Grafton	a) 69	N/A	N/A
	b) 69	N/A	N/A

APPENDIX 1
Delivery Points, Wholesale Distribution Rates, Losses

Name	Nominal Voltage (kV)	Monthly Distribution Charge (\$/kW)*	Distribution Losses (%)**
Grove City	a) 69	N/A	N/A
Haskins	12	\$1.54	3.9%
Holiday City	a) 12.47	\$0.65	3.9%
	b) 69	N/A	N/A
Hubbard	23	\$0.73	3.9%
Hudson	a) 69	N/A	N/A
	b) 69	N/A	N/A
	c) 138	N/A	N/A
	d) 138	N/A	N/A

Huron	a) 12	\$0.92	3.9%
	b) 69	N/A	N/A
Lodi	69	N/A	N/A
Lucas	12	\$0.60	3.9%
Milan	a) 69	N/A	N/A
	b) 69	N/A	N/A
Monroeville	a) 69	N/A	N/A
	b) 69	N/A	N/A
Montpelier	a) 69	N/A	N/A
	b) 69	N/A	N/A
Napoleon	a) 69	N/A	N/A
New Wilmington	4.16	\$0.49	3.9%
Newton Falls	a) 69	N/A	N/A
	b) 69	N/A	N/A

APPENDIX 1
Delivery Points, Wholesale Distribution Rates, Losses

Name	Nominal Voltage (kV)	Monthly Distribution Charge (\$/KW)*	Distribution Losses (%)**
Niles	138	N/A	N/A
Oak Harbor	12	\$0.30	3.9%
Oberlin	69	N/A	N/A
Painesville	a) 138	N/A	N/A
	b) 138	N/A	N/A
Pemberville	34.5	\$2.62	3.9%
Pioneer	69	N/A	N/A
Prospect	69	N/A	N/A
Seville	a) 69	N/A	N/A
	b) 138	N/A	N/A
South Vienna	12	\$0.28	3.9%
Toledo OminSource	69	N/A	N/A
Wadsworth	a) 138	N/A	N/A
	b) 69	N/A	N/A
Wampum	4.16	\$0.87	3.9%
Wellington	69	N/A	N/A
Woodville	a) 12	\$1.16	3.9%
	b) 34	\$0.74	3.9%
Zelienople	138	N/A	N/A

* kW shall be the non-coincident monthly peak load as metered at each delivery point, and increased for losses as applicable to include losses at the 138 kV voltage level.

** The loss factors provided in this Appendix represent losses on facilities used for wholesale distribution service as referenced in Section 8.2.

*** The three Bowling Green 69 kV delivery points are operated in parallel. Approval of the parallel operation of these delivery points is grandfathered.

INTERCONNECTION AGREEMENT

between

AMERICAN TRANSMISSION SYSTEMS, INCORPORATED

and

AMP TRANSMISSION, LLC

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APPENDICES

Appendix I	Interconnection Point and One-Line Diagram(s)
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Appendix II	Metering Requirements
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Appendix IV	Definitions

INTERCONNECTION AGREEMENT

THIS INTERCONNECTION AGREEMENT ("Agreement") is made and entered into as of the 27th day of November, 2018 (the "Execution Date"), between American Transmission Systems, Incorporated ("ATSI") and AMP Transmission, LLC ("AMPT"); ATSI and AMPT may be referred to herein individually as a "Party" or collectively as the "Parties". For the avoidance of doubt, the terms "Party" and "Parties" as used herein shall not include PJM Interconnection, L.L.C. ("PJM") or any successor Regional Transmission Organization.

WITNESSETH:

WHEREAS, AMPT is a transmission-only non-profit limited liability company, which owns, operates, and maintains transmission facilities in Ohio.

WHEREAS, AMPT's transmission facilities are subject to the functional control of PJM, which provides transmission service to customers pursuant to the PJM Open Access Transmission Tariff ("PJM Tariff").

WHEREAS, ATSI is a public utility that is engaged in transmitting electric energy in the State of Ohio and the Commonwealth of Pennsylvania.

WHEREAS, FERC has required the Parties to this Agreement to include PJM as a signatory to this Agreement, pursuant to *American Electric Power Service Corporation*, 112 FERC ¶ 61,128 at P 10 (2005), in order to ensure that PJM is kept fully apprised of the matters addressed herein and so that PJM may be kept aware of any reliability and planning issues that may arise.

NOW, THEREFORE, in consideration of the premises and mutual covenants herein set forth, the Parties hereto agree as follows:

ARTICLE 1 INTERCONNECTED OPERATION

1.1 Interconnected Operation

The Parties' Transmission Systems shall be interconnected at each Interconnection Points specified and described in Appendix I of this Agreement. The Parties, by amendment to this Agreement pursuant to Section 10.3, may add, discontinue or modify one or more Interconnection Points.

1.2 Continuity of Interconnected Operation

During the term of this Agreement, each Party shall continue to maintain in service its respective transmission systems interconnection facilities and essential terminal equipment necessary to maintain in a safe and reliable manner each Interconnection Point described in Appendix I.

1.3 Compliance with Law

Each Party shall comply with Good Utility Practice and Applicable Laws and Regulations, including the requirements of any Governmental Authority having jurisdiction over the Party, in performing its respective obligations and responsibilities under this Agreement.

ARTICLE 2

OPERATIONS AND MAINTENANCE

2.1 Operating Responsibilities

Each Party, if applicable, shall exercise reasonable care to design, construct, maintain, and operate its Transmission System, in accordance with Good Utility Practice and any PJM requirement, and in such manner as to avoid the unauthorized use of the generation or transmission facilities of any other person, including such facilities of the other Party (hereinafter referred to as "Unauthorized Use"). Each Party may install and operate on its Transmission System such relays, disconnecting devices, and other equipment, as it may deem appropriate for the protection of its Transmission System or prevention of Unauthorized Use. Each Party shall maintain and operate its respective Transmission System so as to reasonably minimize, in accordance with Good Utility Practice, the likelihood of a disturbance originating on its Transmission System, which might cause impairment to the service of the other Party.

2.2 Interruption of Service

The interconnection of the Parties' Transmission Systems under this Agreement may be interrupted, upon reasonable notice, under the following circumstances: (a) by operation of automatic equipment installed for power system protection; (b) after consultation with the other Party if practicable, when a Party deems it desirable for the installation, maintenance, inspection, repairs or replacements of equipment; (c) to comply with a directive issued by PJM; or (d) at any time that, in the sole judgment of the interrupting Party, such action is necessary to preserve the integrity of, or to prevent or limit any instability on, or to avoid or mitigate a burden on its system, or to avoid or mitigate the loss of life, injury, or property damage. If synchronous operation of the Parties' Transmission Systems through a particular line or lines becomes interrupted, the Parties shall cooperate so as to remove the cause of such interruption as soon as practicable and restore said lines to normal operating condition.

2.3 Maintenance and Facility Maintenance

Each Party shall maintain its facilities in a safe and reliable manner in accordance with: (i) the terms of this Agreement; (ii) applicable NERC Reliability Standards; (iii) PJM Requirements; and (iv) Good Utility Practice. Operating arrangements for facility maintenance shall be coordinated between operating personnel of the Parties' respective

control centers. Except as may be necessary and appropriate in an emergency, all operating arrangements shall be in accordance with PJM Requirements.

2.4 Compliance with NERC Reliability Standards

The Parties shall confer as necessary to maintain agreeable understanding of their respective NERC-registered roles as they pertain to the operation, maintenance, or Modification of an Interconnection Point identified in Appendix I of this Agreement or the coordination of any new Interconnection Point between the Parties. Unless otherwise agreed in writing between the Parties, the Parties shall not be responsible for each other's NERC compliance requirements.

2.5 Cooperation Associated with NERC Reliability Standards

If one Party is subject to a data request, self-certification or an audit of applicable NERC Reliability Standards, or similar type request where such request is associated with the facilities it operates to effect the interconnection of the Parties' Transmission Systems at each Interconnection Point by FERC, NERC, or PJM, then the other Party shall cooperate and assist in a timely fashion and to the extent necessary to address any such data request, self-certification or an audit of applicable NERC Reliability Standards. When either Party is required to demonstrate compliance with NERC Reliability Standards with respect to such facilities, the other Party shall cooperate and assist in a timely fashion with such compliance activities to the extent such requirement involves facilities necessary to facilitate the interconnection being provided for herein.

2.6 Access

Each Party shall provide the other Party access to areas under its control as reasonably necessary to permit the other Party to perform its obligations under this Agreement, including operation and maintenance obligations. A Party that obtains such access shall comply with all safety rules applicable to the area to which access is obtained.

ARTICLE 3

METERING AND DATA ACQUISITION SYSTEM EQUIPMENT

3.1 Interconnection Point

All electric energy transmitted under this Agreement shall be of the character commonly known as either three-phase 60 Hz or direct current energy and shall flow at the Interconnection Points specified under Article 1 of this Agreement at standard nominal voltage or such other voltages as may be specified in this Agreement.

3.2 Metering and Data Acquisition System Equipment

Consistent with Appendix II of this Agreement and PJM Requirements, ATSI or an Affiliate shall install and maintain revenue metering equipment at each Interconnection Point for measuring electric energy for the purposes of determining load and effecting settlements.

AMPT shall be responsible for providing all SCADA data as required by the PJM Tariff via their respective existing ICCP data links to PJM. The Parties may receive operational data regarding the interconnection between the Parties via the ICCP data links to PJM. Should an interruption of the communication equipment interfere with either Party's access to the SCADA data, the Parties shall use Due Diligence to resolve the problem as quickly as possible.

ARTICLE 4

CONFIDENTIALITY

4.1 Confidentiality

Information is Confidential Information only if it is clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential. If requested by any Party, the disclosing Party shall provide in writing the basis for asserting that the information referred to in this section warrants confidential treatment, and the requesting Party may disclose such writing to an appropriate Governmental Authority.

4.2 Term

During the term of this Agreement, and for a period of five (5) years after the expiration or termination of this Agreement, except as otherwise provided in this Article 4, each Party shall hold in confidence, and shall not disclose to any person, Confidential Information provided to it by the other Party.

4.3 Scope

Confidential Information shall not include information that the receiving Party can demonstrate: (i) is generally available to the public other than as a result of a disclosure by the receiving Party; (ii) was in the lawful possession of the receiving Party on a non-confidential basis before receiving it from the disclosing Party; (iii) was supplied to the receiving Party without restriction by a third party, who, to the knowledge of the receiving Party, after due inquiry, was under no obligation to the disclosing Party to keep such information confidential; (iv) was independently developed by the receiving Party without reference to Confidential Information of the disclosing Party; (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Party or Breach of this Agreement; or (vi) is required, in accordance with Section 4.8 or 4.11 of this

Agreement, to be disclosed to any Governmental Authority or is otherwise required to be disclosed by law or subpoena, or is necessary in any legal proceeding establishing rights and obligations under this Agreement. Information designated as Confidential Information shall no longer be deemed confidential if the Party that designated the information as confidential notifies the other Party that it no longer is confidential.

4.4 Release of Confidential Information

Subject to Sections 4.8 and 4.11, no Party shall disclose Confidential Information to any other person, except to its Representatives (limited by the FERC's Standards of Conduct requirements), without the prior written consent of the disclosing Party. A receiving Party may disclose Confidential Information to its Representatives provided that such Representative has first been advised of the confidentiality provisions of this Article 4. Notwithstanding the foregoing, a Party providing Confidential Information to a Representative shall remain primarily responsible for any release of Confidential Information by such Representative in contravention of this Article 4.

4.5 Rights

Each Party retains all rights, title, and interest in the Confidential Information that it discloses to any other Party. A Party's disclosure to the other Party of Confidential Information shall not be deemed a waiver by such Party or any other person or entity of the right to protect the Confidential Information from public disclosure.

4.6 No Warranties

By providing Confidential Information, neither Party makes any warranties or representations as to its accuracy or completeness.

4.7 Standard of Care

Each Party shall use at least the same standard of care to protect Confidential Information it receives as such Party uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Confidential information may be used solely to fulfill a Party's obligations to the other Party under this Agreement or to comply with Applicable Laws and Regulations.

4.8 Order of Disclosure

If a Governmental Authority with the right, power, and apparent authority to do so requests or requires a Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Party shall provide the Party that provided the information with prompt prior notice of such request(s) or requirement(s) so that the providing Party may seek an appropriate protective order or waive compliance with the terms of this Agreement. Notwithstanding the absence of a protective order or agreement, or waiver, the Party that

is subjected to the request or order may disclose such Confidential Information which, in the opinion of its counsel, the Party is legally compelled to disclose. Each Party shall use reasonable efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

4.9 Return or Destruction of Confidential Information

Each Party shall, within ten (10) calendar days of receipt of a written request from the other Party, use reasonable efforts to destroy, erase, or delete (with such destruction, erasure and deletion certified in writing to the requesting Party) or to return to the other Party, without retaining copies thereof, any and all written or electronic Confidential Information received from the requesting Party. Notwithstanding the foregoing, a Party shall not be required to purge any historical backup media.

4.10 Remedies

The Parties agree that monetary damages may be inadequate to compensate a Party for another Party's Breach of its obligations under this Article 4. Each Party accordingly agrees that the other Party shall be entitled to equitable relief, by way of injunction or otherwise, if the first Party Breaches or threatens to Breach its obligations under this Article 4, which equitable relief shall be granted without bond or proof of damages, and the receiving Party shall not plead in defense that there would be an adequate remedy at law. Such remedy shall not be deemed to be an exclusive remedy for the Breach of this Article 4, but shall be in addition to all other remedies available at law or in equity. The Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. The provisions of Section 12.3(b) are also applicable here.

4.11 Disclosure to FERC or its Staff

Notwithstanding anything in this Article 4 to the contrary, and pursuant to 18 C.F.R. § 1b.20, if FERC or its staff, during the course of an investigation or otherwise, requests information from a Party that is otherwise required to be maintained in confidence pursuant to this Agreement, the such Party, shall provide the requested information to FERC or its staff, within the time provided for in the request for information. In providing the information to FERC or its staff, the Party must, consistent with 18 C.F.R. § 388.122, request that the information be treated as confidential and non-public by FERC and its staff and that the information be withheld from public disclosure. To the extent permitted by law, each Party shall notify the other Party prior to the release of the other Party's Confidential Information to the Commission or its staff. A Party shall notify the other Party when it is notified by FERC or its staff that a request to release the other Party's Confidential Information has been received by FERC, at which time either of the Parties may respond before such information would be made public, pursuant to 18 C.F.R. § 388.112.

4.12 General Disclosure

Notwithstanding any other provisions of this Article 4, a Party may disclose the Confidential Information provided by the other Party to the extent disclosure is: (i) reasonably deemed by the disclosing Party to be required in connection with a dispute between the Parties, or the defense of litigation or dispute; (ii) otherwise permitted by written consent of the Party that provided such Confidential Information; or (iii) necessary to fulfill its obligations to an RTO or ISO or to a regional or national reliability organization. Prior to any disclosures of another Party's Confidential Information under this Section 5.12, the disclosing Party shall promptly notify the other Party in writing and shall assert confidentiality and cooperate with the other Party in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

ARTICLE 5

INVOICING AND PAYMENT; TAXES

5.1 Purpose of Invoicing

Any invoice that is issued pursuant to this Agreement shall be for: (a) the establishment of any new Interconnection Point; (b) the modification of an existing Interconnection Point; or (c) other purposes as may be set forth in this Agreement.

5.2 Timeliness of Payment

Unless otherwise agreed upon, all invoices, if any, issued pursuant to this Agreement shall be rendered as soon as practicable in the month following the calendar month in which expenses were incurred and shall be due and payable, unless otherwise agreed upon, within thirty (30) days of receipt of such invoice. Payment shall be made by electronic transfer or such other means as shall cause such payment to be available for the use of the payee. Interest on unpaid amounts shall accrue daily at the then current prime interest rate (the base corporate loan interest rate) published in the Wall Street Journal, or, if no longer so published, in any mutually agreeable publication, plus two percent (2%) per annum, but will in no event exceed the maximum interest rate allowed pursuant to the law of the state where the Interconnection Point associated with such invoice is or is expected to be located, and shall be payable from the due date of such unpaid amount and until the date paid.

5.3 Disputed Invoices

In the event that a Party disputes an invoice, the Party shall pay the invoice in full in accordance with Section 5.2 of this Agreement subject to the refund of any amounts found to have been incorrectly invoiced plus interest on such amount at the rate stated in Section 5.2 from the date of payment until the date of the refund. In the event of a billing dispute, the disputing Party shall provide notice of the dispute to the billing Party as set out in Section 12.4. In response to the notice, the billing Party will promptly provide all

documentation that is reasonably required in support of its bill and confer with the disputing Party. If these good faith efforts fail to resolve the issue, the matter may be addressed through the dispute resolution procedures of Article 7.

5.4 Invoice Adjustments

Other than as required by law, regulatory action or metering test adjustments, invoice adjustments shall be made within six (6) months of the rendition of the initial invoice.

5.5 Tax Reimbursement

If, as part of any compensation to be paid under this Agreement, any direct tax, including, but not limited to sales, excise, or similar taxes (other than taxes based on or measured by net income) is levied and/or assessed against either Party by any taxing authority on the power and/or energy manufactured, generated, produced, converted, sold, purchased, transmitted, interchanged, exchanged, exported or imported by the supplying Party to the other Party, then except as provided in Section 5.6, such supplying Party shall be fully compensated prospectively by the other Party for such direct taxes.

5.6 Contribution In-Aid of Construction

For payment amounts that are classified as contributions in-aid of construction ("CIAC"), and in the event and to the extent such CIAC payment amounts ("CIAC Payment") are classified as taxable income by the receiving Party or if the receiving Party is tax exempt, receipt of such CIAC Payment causes said Party to become taxable, such CIAC Payment shall be increased (or "grossed-up") to fully cover the receiving Party's net tax consequences arising from the CIAC Payment. If at the time of invoicing the receiving Party made a good faith determination that the CIAC Payment would not be classified as taxable income but federal or state income taxes are subsequently imposed upon the receiving Party by the Internal Revenue Service ("IRS") and/or a state department of revenue ("State") arising from the receipt of such CIAC Payment, the Party that originally made the CIAC Payment shall reimburse the receiving Party for the full tax effect of such CIAC Payment computed in accordance with FERC rules and including any interest and penalty charged to the Party by the IRS and/or State.

ARTICLE 6

INDEMNITY AND INSURANCE

6.1 Indemnity

To the extent permitted by law, each Party (the "Indemnifying Party") shall indemnify, save harmless, and defend the other Party from and against any losses, liabilities, costs, expenses, suits, actions, claims, and all other obligations arising out of injuries or death to persons or damage to property to the extent arising out of, in connection with, or resulting from (i) the failure of the Indemnifying Party or any of its Contractors in performance of its

obligations under this Agreement, or (ii) the negligence or intentional misconduct of the Indemnifying Party or its Contractors, except that a Party's obligation to indemnify the other Party shall not apply to the extent of any liabilities arising from the other Party's negligence or intentional misconduct or that portion of any liabilities that arise out of the other Party's contributing negligence, intentional acts or omissions.

Promptly after receipt by a Party entitled to indemnity ("Indemnified Party") of any claim or notice of the commencement of any action or administrative or legal proceeding or investigation as to which the Indemnity provided for in this Section 6.1 may apply, the Indemnified Party shall notify the Indemnifying Party of such fact. Any failure of or delay in such notification shall not affect an Indemnifying Party's indemnification obligation unless such failure or delay is materially prejudicial to the Indemnifying Party.

The Indemnifying Party shall, at the Indemnified Party's option and at the Indemnifying Party's expense, defend the Indemnified Party against any and all suits, actions, or claims arising out of, connected with, or resulting from (i) the failure of the Indemnifying Party or any of its Contractors in performance of its obligations under this Agreement, or (ii) the negligence or intentional misconduct of the indemnifying Party or its Contractors provided that the Indemnifying Party shall not settle or make a plea with respect to any proceeding without the Indemnified Party's prior written consent.

A Party's obligations to another Party under this Section 6.1 shall not be limited in any way by any provision of any workers' compensation, disability benefits, payroll or other employee benefits laws; provided, however, that nothing herein shall limit or restrict any defense a Party may be entitled to assert with respect to a Third Party Claim, including a defense based on the status of such Party as a statutory employer. EACH PARTY HEREBY SPECIFICALLY AND EXPRESSLY WAIVES ANY AND ALL DEFENSES IT MAY HAVE TO AN INDEMNIFICATION OBLIGATION TO THE OTHER PARTY PURSUANT TO THIS AGREEMENT BASED ON ANY IMMUNITY TO WHICH SUCH PARTY MAY BE ENTITLED UNDER ANY WORKERS' COMPENSATION, DISABILITY BENEFITS, PAYROLL OR EMPLOYEE BENEFITS LAWS.

For the purposes of this Section 6.1 only, the term "Party" shall include the Party's Affiliates and the directors, officers, employees, and agents of the Party and its Affiliates.

6.2 Insurance

6.2.1 Maintaining Insurance

Each Party shall maintain insurance as described in paragraphs A through E below. All insurance shall be procured from insurance companies rated "A-," VII or better by AM Best and approved to do business in a state or states in which the Interconnection Point(s) is located. Failure to maintain required insurance shall be a Breach of this Agreement.

- A. Workers' Compensation insurance with statutory limits, as required by the state and/or jurisdiction in which Interconnection Construction is to be performed, and employer's liability insurance with limits of not less than one million dollars (\$1,000,000.00).
- B. Commercial General Liability Insurance and/or Excess Liability Insurance covering liability arising out of premises, operations, personal injury, advertising, products and completed operations coverage, independent contractors coverage, liability assumed under an insured contract, and punitive damages to the extent allowable under applicable law, with limits of not less than one million dollars (\$1,000,000) per occurrence/one million dollars (\$1,000,000) general aggregate/one million dollars (\$1,000,000) products and completed operations aggregate.
- C. Business/Commercial Automobile Liability Insurance for coverage of owned and non-owned and hired vehicles, trailers or semi-trailers designed for travel on public roads, with a minimum, combined single limit of one million dollars (\$1,000,000) each accident combined single limit for bodily injury, including death, and property damage.
- D. Excess and/or Umbrella Liability Insurance with a limit of liability of not less than twenty million dollars (\$20,000,000.00) per occurrence. This limit applies in excess of the employer's liability, commercial general liability and business/commercial automobile liability coverages described above. This requirement can be met alone or via a combination of primary, excess and/or umbrella insurance.
- E. Professional Liability Insurance providing errors, omissions and/or malpractice coverage in the amount of one million dollars (\$1,000,000) per claim/aggregate. Coverage shall be provided for the Parties' representatives that are responsible for design work associated with Interconnection Construction. A Party may meet the Professional Liability Insurance requirements by requiring Contractors, designers, or engineers, or other parties that are responsible for Interconnection Construction to procure professional liability insurance in the amounts and upon the terms prescribed by this Section 6.2.1, and providing evidence of such insurance to the other Party. Nothing in this section relieves the Party from complying with the insurance requirements.

6.2.2 Additional Insureds

The Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability policies procured by a Party (Insured Party) shall include the other Party (Additional Insured Party), and its respective officers, agents and employees as additional insureds, providing all standard coverages and covering liability of the Insured Party for bodily injury and/or property damage (including loss of use) arising out

of the Insured Party's operations, performance, or lack of performance under this Agreement.

6.2.3 Other Required Terms

The above-mentioned insurance policies of a Party (except workers' compensation, excess/umbrella and professional liability) shall provide the following:

- A. Each policy shall contain provisions that specify that it is primary and non-contributory for any liability arising out of the Insured Party's liability, and shall apply to such extent without consideration for other policies separately carried by the Additional Insured Party and shall state that each insured is provided coverage as though a separate policy had been issued to each, except the insurer's liability shall not be increased beyond the amount for which the insurer would have been liable had only one insured been covered. In addition, the following shall apply to all Parties' insurance policies, to the extent allowable by law.
 - i. If any coverage is written on a claims first made basis, continuous coverage shall be maintained or an extended discovery period will be exercised for a period of not less than two (2) years after termination of this Agreement.
 - ii. The insurance (including workers' compensation) shall include a waiver of all rights of subrogation which a Party's insurance carrier might exercise against the other Party.
 - iii. Each Party shall be responsible for its respective deductibles or retentions.

6.2.4 No Limitation of Liability

The requirements contained herein as to the types and limits of all insurance to be maintained by the Parties are not intended to and shall not in any manner, limit or qualify the liabilities and obligations assumed by each respective Party under this Agreement.

6.2.5 Self-Insurance

Notwithstanding the foregoing, each Party may self-insure to meet the minimum insurance requirements of this Section 6.2 to the extent it maintains a self-insurance program, provided that such Party's or its parent company's senior secured debt is rated at investment grade or better by Standard & Poor's and its self-insurance program meets the minimum insurance requirements of this Section 6.2. For any period of time that a Party's or its parent company's senior secured debt is unrated by Standard & Poor's or is rated at less than investment grade by Standard & Poor's, such Party shall comply with the insurance requirements applicable to it under this Section 6.2. In the event that a Party is permitted to self-insure pursuant to this section, it shall notify the other Party that

it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with this Agreement.

6.2.6 Notices; Certificates of Insurance

Each Party shall endeavor to provide the other Party with thirty days prior written notice of cancellation to any of the insurance required under this Agreement provided, however, that no notice shall be required if a canceled policy is replaced with an equivalent policy without any lapse in coverage. Each Party shall provide the other with certificates of insurance prior to commencement of Interconnection Construction related to an Interconnection Point and thereafter at such time intervals as they shall mutually agree upon, provided that such interval shall not be less than one year. The insured Party's certificates of insurance shall indicate that the certificate holder is included as an additional insured under the Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability coverage, and that this insurance is primary and non-contributory. Each Party's certificates of insurance shall evidence that a waiver of subrogation is included in the required insurance policies in favor of the other Party.

6.2.7 Contractor Insurance

In accordance with Good Utility Practice, each Party shall require each of its Contractors to maintain and provide evidence of insurance coverage of types, and in amounts, commensurate with the risks associated with the services provided by the Contractor. Bonding of Contractors shall be at the hiring Party's discretion, but regardless of bonding, the hiring principal shall be responsible for the performance or non-performance of any Contractor it hires.

6.2.8 Reporting Incidents

The Parties shall report to each other in writing as soon as practical all accidents or occurrences resulting in injuries to any person, including death, and any property damage arising out of this Agreement.

ARTICLE 7 DISPUTES

7.1 Mediation

Any controversy or claim arising out of or relating to this Agreement or Breach thereof that cannot be resolved after a period of thirty (30) days of negotiation may, by mutual agreement of the Parties, be settled by mediation in accordance with this Agreement. During the mediation process, the Parties will try to resolve their differences voluntarily with the aid of an impartial mediator, who will attempt to facilitate negotiations. The

mediator will be selected by the mutual agreement of the Parties as soon as practical after the Parties agree to commence the mediation process.

7.2 Confidentiality of Mediation

The mediation will be treated as a settlement discussion and therefore will be confidential. The mediator may not testify for either Party in any later proceedings relating to the dispute. No recording or transcript shall be made of the mediation proceedings.

7.3 Termination of Mediation

If a dispute has not been resolved within forty-five (45) days after the commencement of the non-binding mediation process (or a longer period if the Parties agreed to extend the non-binding mediation), the mediation shall terminate.

7.4 Rights and Remedies

If any dispute is not settled by mediation, then any Party may pursue any and all rights and remedies available to it under this Agreement, or in law or equity. Notwithstanding the mediation hereunder, the Parties have the right to proceed directly to court to seek relief in law or in equity. The submission of a dispute to mediation shall not limit or in any way affect the applicable Party's right to effect remedies or limit such Party's rights under this Agreement or otherwise.

ARTICLE 8

TERM AND TERMINATION OF AGREEMENT

8.1 Term

This Agreement shall be effective as of the Execution Date, or such later date as the last necessary regulatory approval hereof shall be obtained (unless an earlier date is specified by the regulatory authority having jurisdiction), and shall remain in effect until it is terminated in accordance with Section 8.2.

8.2 Termination

This Agreement may be terminated by the following means:

8.2.1 By Mutual Consent

This Agreement may be terminated as of the date on which the Parties mutually agree to terminate this Agreement.

8.2.2 By Either Party

Either Party may terminate this Agreement by providing to the other Party and to PJM thirty-six (36) months' advance written notice of its intent to terminate this Agreement, in which case this Agreement shall terminate at the end of such thirty-six (36) month notice period.

8.2.3 Upon Default

Either Party may terminate this Agreement upon the Default of the other Party by providing the defaulting Party and PJM thirty (30) days prior written notice of termination.

ARTICLE 9

BREACH AND DEFAULT

9.1 Breach and Default

A Party shall be considered in default of this Agreement ("Default") if it fails to cure a Breach in accordance with the terms of this Section 9.1. A breach ("Breach") shall mean the failure of a Party to perform or observe any material term or condition of this Agreement; provided that no Breach shall exist where such failure to discharge an obligation (other than the payment of money) is the result of Force Majeure as defined in this Agreement or the result of an act or omission of the other Party. Upon a Breach, the non-breaching Party shall give written notice of such Breach to the breaching Party. The breaching Party shall have thirty (30) calendar days from receipt of the Breach notice within which to cure such Breach; provided however, if such Breach is not capable of cure within thirty (30) calendar days, the breaching Party shall commence such cure within thirty (30) calendar days after notice and continuously and diligently complete such cure within ninety (90) calendar days from receipt of the Breach notice; and, if cured within such time, the Breach specified in such notice shall cease to exist.

9.2 Renegotiable Events

If one of the following conditions occurs, the Parties shall negotiate in good faith to amend this Agreement or to take other appropriate action so as to protect each Party's interest in this Agreement. This Agreement shall serve as the document upon which such negotiations shall be based and the Parties shall make as minimal modifications as necessary to effectuate the original intent and purpose of this Agreement. If the Parties are unable to reach agreement, either Party shall have the right to unilaterally file with the FERC, pursuant to Section 205 or Section 206 of the Federal Power Act as appropriate, proposed amendments to this Agreement that the Party deems reasonably necessary to protect its interests:

- A. any change to Applicable Laws and Regulations having a material impact upon the effectiveness or enforceability of any provision of this Agreement;

- B. this Agreement is not approved or accepted for filing by the FERC without modification or condition;
- C. PJM or NERC prevents, in whole or in part, either Party from performing any provisions of this Agreement in accordance with its terms;
- D. either Party withdraws as a member of PJM;
- E. PJM Requirements are modified in a manner that materially affects either Party's ability to perform its obligations under this Agreement; or
- F. PJM, either voluntarily or involuntarily, is dissolved.

ARTICLE 10

REGULATORY AUTHORITIES

10.1 Regulatory Authorities

This Agreement is made subject to the jurisdiction of the FERC and any Governmental Authority having jurisdiction over the rates, terms conditions or services provided under this Agreement.

10.2 Adverse Regulatory Change

The Parties agree to jointly submit and support the filing of this Agreement with the FERC, if such filing is required by the Federal Power Act. Any changes or conditions imposed by the FERC in connection with such submission or otherwise in respect of this Agreement, any of which are unacceptable to a Party after the Parties' good faith attempt to negotiate a resolution to such objectionable change or condition in accordance with Section 9.2 shall be cause for termination of this Agreement upon thirty (30) days' prior written notice by the non-consenting Party to the other Party.

10.3 Amendments to the Agreement

10.3.1 Amendments

This Agreement may only be modified in a writing signed by both Parties and PJM. In the event that the Parties agree to amend this Agreement, the Parties shall, if required by Applicable Laws and Regulations, file any such amendment or modification with the FERC.

10.3.2 Section 205 and 206 Rights

Nothing contained in this Agreement shall preclude either Party from exercising its rights under Section 205 and 206 of the Federal Power Act to file for a change in any rate, term, condition or service provided under this Agreement.

ARTICLE 11

MODIFICATIONS OF FACILITIES

11.1 Generally.

Each Party may make such Modifications to its facilities as it deems necessary in its sole judgment based on Good Utility Practice, subject to the requirements of Section 12.2, below. Modifications shall be subject to any applicable approval process set forth in the PJM Tariff.

11.2 Notice.

In the event a Party plans to undertake Modifications to its facilities or Transmission System that reasonably may be expected to impact the other Party's Transmission System, the initiating Party shall provide the other Party and PJM with at least ninety (90) days' advance notice of the desired Modifications. The nature of, and the schedule of work for, performing such Modifications shall be subject to review and acceptance by the other Party and PJM, which review and acceptance shall not be untimely nor unreasonably withheld or delayed, to ensure that such Modifications will (i) not adversely affect a Party's Transmission System, or other facilities, and (ii) are consistent with Good Utility Practice. Subject to all applicable requirements imposed by Applicable Law, PJM, and NERC, the suitability and the responsibility for the safe and adequate design, construction, operation and maintenance of the initiating Party's modifications shall be and remain the sole obligation of the initiating party. If the other Party does not respond within one hundred twenty (120) days after receipt of the notice, then the other Party will be deemed to have accepted the proposed Modifications.

11.3 Cost Responsibility.

When the actions of a Party necessitate modifications to the other Party's facilities that are not required by Applicable Law, PJM, FERC, NERC, or other Governmental authority, such Modifications to the other Party's facilities shall be made at the sole cost and expense of the Party whose actions necessitated the modifications requiring the changes, unless otherwise agreed to in writing the Parties, provided such Party's responsibility for such modification cost is limited to those costs that are incremental to costs already planned to the incurred by the other Party for such Modifications.

11.4 Information.

Subject to any applicable confidentiality agreements, each Party agrees that it will furnish to the other Party such information concerning its system as may be reasonably

requested by the other Party as reasonably necessary to construct, operate, maintain, and implement Modifications to the other Party's facilities. No review of such information will constitute an acceptance or approval of the Modifications by the reviewing Party.

ARTICLE 12

GENERAL

12.1 Force Majeure

No Party shall be in default in respect to any obligation hereunder because of Force Majeure. A Party unable to fulfill any obligation by reason of Force Majeure shall use Due Diligence to remove such disability with appropriate dispatch. A Party unable to fulfill any obligation by reason of Force Majeure shall: (a) provide prompt written notice of such Force Majeure event to the other Party which notice shall include an estimate of the expected duration of such event; and (b) attempt to exercise all reasonable efforts to continue to perform its obligations under this Agreement. The failure of a Party to perform its obligations under this Agreement as a result of Force Majeure shall only be excused for the duration of the Force Majeure and while such Party exercises Due Diligence to remove such disability. As soon as the non-performing Party is able to resume performance of its obligations, such Party shall resume performance and give prompt notice thereof to the other Party.

12.2 Waivers

No failure or delay on the part of either Party in exercising any of its rights under this Agreement, no partial exercise by either Party of any of its rights under this Agreement, and no course of dealing between the Parties shall constitute a waiver of the rights of either Party under this Agreement. Any waiver shall be effective only by a written instrument signed by the Party granting such waiver, and such shall not operate as a waiver of, or continuing waiver with respect to any subsequent failure to comply therewith.

12.3 Liability

- A. Except to the extent of the other Party's negligence or intentional misconduct or Breach of this Agreement, each Party shall be responsible for all physical damage to or destruction of the property, equipment and/or facilities owned by it and its Affiliates, regardless of who brings the claim and regardless of who caused the damage, and shall not seek recovery or reimbursement from the other Party for such damage.
- B. To the fullest extent permitted by law and notwithstanding Section 6.1 or any other provision of this Agreement, in no event shall a Party, its Affiliates, or any of their respective owners, officers, directors, employees, agents, successors or assigns be liable to the other Party, its Affiliates or any of their respective

owners, officers, directors, employees, agents, successors or assigns, whether in contract, warranty, tort, negligence, strict liability, or otherwise, for any special, indirect, incidental, exemplary, consequential (including, without limitation, attorneys' fees, litigation costs, replacement power costs, lost profits or revenues, loss of good will or lost business opportunities) or punitive damages related to or resulting from performance or nonperformance of this Agreement or any activity associated with or arising out of this Agreement.

- C. Nothing in this Agreement shall be construed to create or give rise to any liability on the part of PJM, and the Parties expressly waive any claims that may arise against PJM under this Agreement.
- D. The Parties acknowledge and understand that the signature of the authorized representative of PJM on this Agreement is for the limited purpose of acknowledging that representatives of PJM have read the terms of this Agreement. The Parties and PJM further state that they understand that FERC desires that the Parties keep PJM fully apprised of the matters addressed herein as well as any reliability and planning issues that may arise under this Agreement, and that the signature of the PJM representative shall not in any way be deemed to imply that PJM is taking responsibility for the actions of any Party, that PJM has any affirmative duties under this Agreement or that PJM is liable in any way under this Agreement.

12.4 Written Notices

Any notice this is required or permitted under this Composite Agreement may be given by personal delivery, by e-mail (with confirmation of receipt), by any courier service which guarantees overnight, receipted delivery, or by U.S. certified or registered mail, return receipt requested, addressed to PJM or the Party entitled thereto, at:

If to AMPT:

AMP Transmission, LLC
Attn: Pamala M. Sullivan, President
1111 Schrock Road, Suite 100
Columbus, OH 43229
e-mail: psullivan@amppartners.org

and

AMP Transmission, LLC
Attn: Lisa G. McAlister, General Counsel
1111 Schrock Road, Suite 100
Columbus, OH 43229
e-mail: lmcaster@amppartners.org

If to ATSI:

FirstEnergy Service Company
Attn: Manager, FERC & Wholesale Connection Support
76 South Main St.
Akron, OH 44308
email: mthorn@firstenergycorp.com

and

FirstEnergy Service Company
Attn: Attorney for FERC & Wholesale Connection Support
Legal Department
76 South Main St.
Akron, OH 44308
email: pnrao@firstenergycorp.com

If to PJM:

Vice President-Government Policy
PJM Interconnection, L.L.C.
1200 G Street, N.W., Suite 600
Washington D.C. 20005

and

General Counsel
PJM Interconnection, L.L.C.
2750 Monroe Blvd.
Audubon, PA 19403

The above listed titles and addresses for a Party or PJM may be changed by written notice to all the other Parties and PJM. Such change shall not necessitate a filing under Section 205 of the Federal Power Act. Any such notice or communication will be deemed to have been given as of the date received.

12.5 Non-Standard Terms and Conditions Applicable to Interconnection Point(s)

The Parties may establish non-standard terms and conditions applicable to any Interconnection Point and to certain shared facilities related to an Interconnection Point that are specified in this Agreement ("Non-Standard Terms and Conditions"). The Non-Standard Terms and Conditions shall be set forth in Appendix III to this Agreement and shall be in addition to any other terms and conditions provided for in this Agreement. Any conflict between the Non-Standard Terms and Conditions and any other provisions of this Agreement shall be resolved in favor of the Non- Standard Terms and Conditions.

12.6 Governing Law

The validity and meaning of this Agreement shall be governed by and construed in accordance with federal law where applicable and, when not in conflict with or preempted by federal law, the applicable law of the State where the Interconnection Point(s) is located, without application of its conflicts of law provisions.

12.7 Defined Terms and Execution

All capitalized terms used in this Agreement shall have the meanings as specified in the body of this Agreement or Appendix IV, or as defined in the PJM Tariff. In the event of any conflict between defined terms set forth in the PJM Tariff or defined terms in this Agreement, such conflict shall be resolved in favor of the terms set forth in this Agreement. Any provisions of the PJM Tariff relating to this Agreement that uses any such defined term shall be construed using the definition given to such defined term in this Agreement.

12.8 Counterparts

This Agreement may be executed in one or more counterparts, each of which shall be deemed an original.

12.9 Entire Agreement; Superseding Effect

This Agreement, including all exhibits, schedules, appendices and other attachments hereto, sets forth the entire understanding and agreement of the Parties as to the subject matter of this Agreement and supersedes all prior written and oral understandings, offers, agreements, commitments, representations, writings, discussions or other communications of every kind between the Parties, pertaining to the subject matter hereof.

ARTICLE 13 ASSIGNMENT

13.1 Assignment

This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties. Successors and assigns of PJM shall become signatories to this Agreement for the limited purpose described in Section 12.3(d) of this Agreement. This Agreement shall not be assigned by any Party without the written consent of the other Party, which consent shall not be unreasonably withheld, conditioned, or delayed. Notwithstanding the foregoing, a Party may assign this Agreement to a successor to which substantially all of the business and assets of such Party shall be transferred, or to an Affiliate of the assigning Party for the purposes of a corporate restructuring, provided that in either case, the assigning Party provides reasonable prior written notice to the other Party and the assignee assumes in writing all rights, duties, and obligations arising under this Agreement. In either such event identified in the preceding sentence, the

assigning Party shall be released from all further obligations and duties thereafter arising pursuant to the terms of the Agreement. An assignment of this Agreement shall be filed with the FERC for acceptance pursuant to Section 205 of the Federal Power Act.

ARTICLE 14

SURVIVAL

14.1 Survival

The termination of this Agreement shall not discharge either Party from any obligation it owes to the other Party under this Agreement by reason of any transaction, loss, cost, damage, expense or liability that shall occur (or the circumstances, events or basis of which shall occur or arise) prior to such termination. It is the intent of the Parties hereby that any such obligation owed (whether the same shall be known or unknown at the termination of this Agreement) shall survive the termination of this Agreement, and that either Party may enforce its rights against the other Party with respect to such obligations in an action at law or in equity to the fullest extent permitted by law.

This Agreement shall continue in effect after termination to the extent necessary for final billings and payments, and to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and to permit each Party to have access to the real property, including but not limited to leased property and easements of the other Party to disconnect, remove or salvage its own facilities and equipment.

IN WITNESS WHEREOF, this Agreement has been executed by the Parties' respective officers lawfully authorized so to do, as of the Execution Date.

AMP TRANSMISSION, LLC

By: /s/ Pamala M. Sullivan

Name: Pamala M. Sullivan

Title: President

AMERICAN TRANSMISSION SYSTEMS, INCORPORATED

By: /s/ Richard A Ziegler

Name: Richard A. Ziegler

Title: Director – FERC and RTO Technical Support

SA No. 5196

The signature below of the authorized representative of PJM Interconnection, L.L.C. is for the limited purpose of acknowledging that a representative of PJM has read this Agreement as of 7th day of December (Month), 2018.

PJM INTERCONNECTION, L.L.C.

By: /s/ Kenneth S. Seiler

Name: Kenneth S. Seiler

Title: Executive Director, System Planning

SA No. 5196

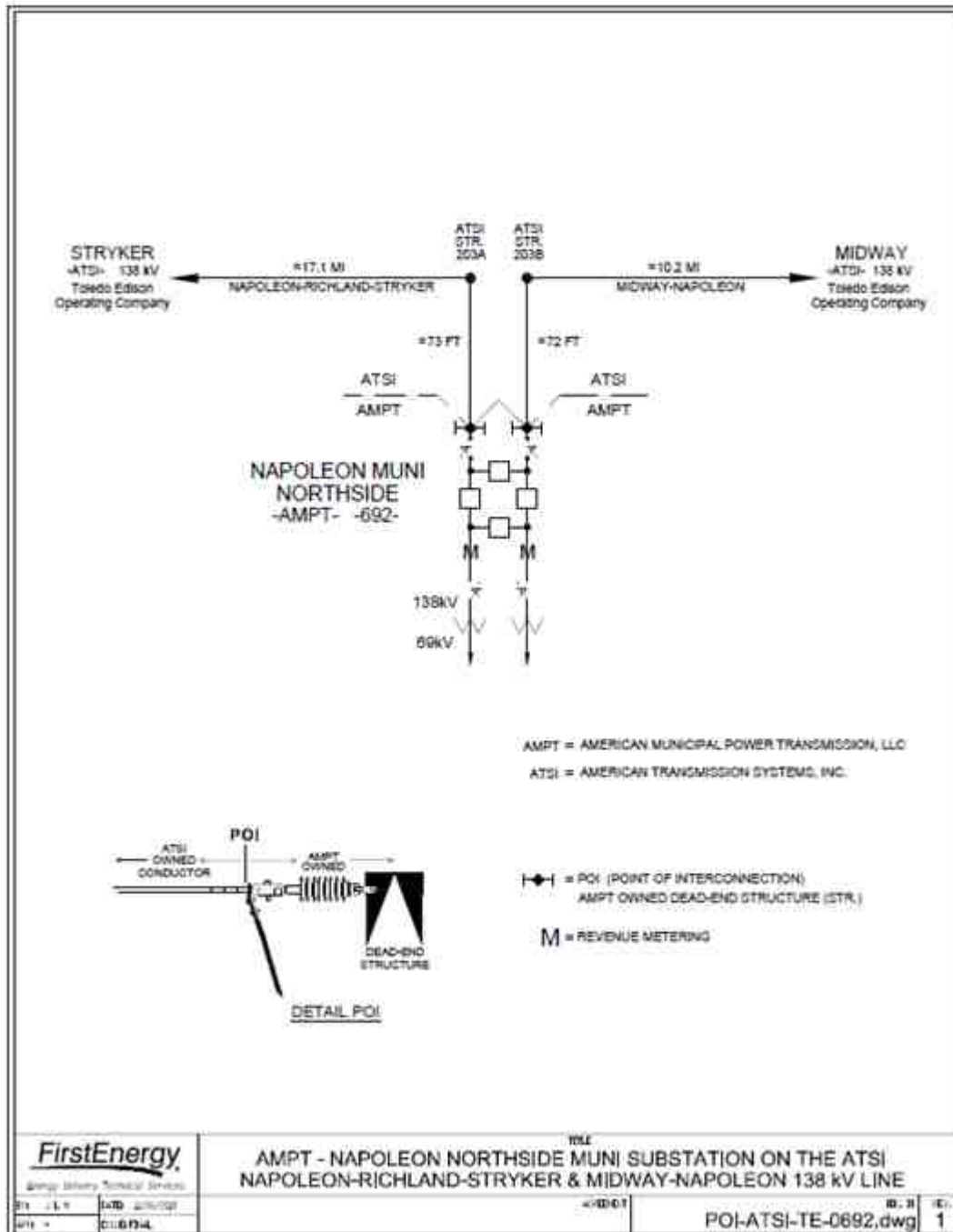
APPENDIX I

Interconnection Point and One-Line Diagram

1. The respective Transmission Systems of the Parties shall be interconnected at the Interconnection Point(s) described below:
 - 1.1 The point hereby designated and hereinafter called “Northside Substation Interconnection Point.” The Interconnection Point is at the substation connected to the 138kV circuit between FE Stryker/Richland and FE Midway (See Figure 1).

APPENDIX I

Figure 1
Northside Substation Interconnection Point



APPENDIX II

Metering Requirements

1.1 Purpose

The purpose of Appendices II and III is to delineate the coordination of each Party's responsibilities to comply with the requirements and standards for metering as applicable to an Interconnection Point under this Agreement and Service Agreement No. 2852. The Parties shall conform and adopt the use of Appendix II as a guide to acknowledge the general principles for metering. In the event of conflict between Appendix II and any mandatory and enforceable requirement (e.g., Applicable Laws and Regulations, PJM Requirements, and NERC Reliability Standards), such conflict shall be resolved in favor of the applicable mandatory and enforceable requirement.

1.2 Metering Point

Electric power and energy delivered at an Interconnection Point shall be measured by suitable metering equipment provided by the Parties or an Affiliate at the Metering Point identified in Appendix I; and at such other points, voltages, and ownership as may be agreed upon by the Parties.

1.3 Metering Equipment

Suitable and reliable metering equipment shall be installed at each Metering Point, and shall include potential and current transformers, revenue meters, test switches and such other equipment as may be needed. The metering design and functionality established by this Appendix II shall serve as a guideline for all new interconnection metering installations, including any modification, addition or upgrade to any metering equipment after the date of this Agreement. As such, a Party may deviate from this metering design and functionality with the other Party's consent, which shall not be unreasonably withheld, conditioned or delayed.

- 1.3.1 General Requirements. All metering quantities shall be measured at the Interconnection Point. Metering equipment, including the accuracy of the meters for points of interconnection of the Transmission System shall meet the applicable NERC Reliability Standards, PJM Requirements, and the American National Standards Institute ("ANSI") standards. The Parties may agree by amendment to this Agreement to install metering at locations other than the Interconnection Point; however, measured metering quantities shall be compensated for losses to the Interconnection Point. The Parties shall exercise reasonable efforts to avoid such compensating metering installations.

All reasonable costs for meter changes or meter upgrades requested by a Party shall be borne by the requesting Party, unless agreed otherwise.

- 1.3.2 Industry Standard Requirements. Three metering elements are to be used unless both Parties agree doing so is unreasonable. In the event three metering elements are not used, the (N-1) metering elements will be used to measure all real and reactive power crossing the Interconnection Point, where N is the number of wires in service including the ground wire. The revenue quality metering package (consisting of instrument transformers, meters, sockets, and test switches) shall be installed, calibrated, and tested (at the requesting Party's expense) in accordance with the latest approved version of (but not limited to) the ANSI standards listed below, or their successors(s) including the standard testing procedures and guidelines of the Party that owns the metering equipment:

ANSI C12.1:	Code for Electricity Metering
ANSI C12.7:	Requirements for Watt-Hour Meter Socket
ANSI C12.9:	Test Switches for Transformer-Rated Meters
ANSI C12.11:	Instrument Transformers for Revenue Metering, 10KV through 350KV BIL
ANSI C12.10:	Electromechanical Watt-hour Meters
ANSI C12.16:	Solid State Electricity Meters
ANSI C12.20:	For Electricity Meters 0.2 and 0.5 Accuracy Class
ANSI C37.90.1:	Surge Withstand Capability (SWC) Test
ANSI/IEEE C57.13:	Standard Requirements for Instrument Transformers

To the extent that the above requirements conflict with the manuals, standards or guidelines of the NERC regarding interchange metering and transactions, the manuals, standards and guidelines of the NERC shall control.

- 1.3.3 Metering Equipment Maintenance and Testing. Upon installation, unless otherwise specified, the revenue meters for Interconnection Points of 500 kW or larger shall be inspected and tested in accordance with the latest applicable ANSI standards and at least once every two (2) years, or at any other mutually agreed frequency thereafter. More frequent meter tests can be performed at the request of any Party; however, the test will be performed at the requesting Party's expense if the meter is found to be within the established ANSI tolerances. The Party that owns the metering shall inform the other Party with at least three (3) weeks' advance notice of impending meter tests, and invite the other Party to attend and witness the tests.

The accuracy of the revenue meter shall be maintained at two tenths of one percent (0.2%) accuracy or better, and the meter test shall require a meter standard with accuracy traceable to the National Institute of Standards and Technology.

If any test of metering equipment discloses an inaccuracy beyond that specified in PJM Manual 01, the accounts of the Parties shall be adjusted for the timeframe of the known meter error that is mutually agreed upon and is allowed under the PJM Operating Agreement or the PJM Tariff. No meter shall be left in service if the percent accuracy error is found to be more than plus or minus one percent (1%).

The Party that owns the metering equipment shall maintain records for the life of the Interconnection Point that demonstrate compliance with all meter tests and maintenance conducted in accordance with Good Utility Practice. The Non-owning Party shall have reasonable access to such records and the Party that owns the metering equipment will provide such records to the Non-owning Party upon request. If revenue metering equipment fails to function, the energy registration shall be determined from the best available data, including the check metering, if applicable. The Instrument Transformers shall also be inspected and maintained based on Section 1.3.2 of this Appendix II, and existing standards and practices of the Party that owns the metering equipment.

- 1.3.4 Current Transformer Requirements. Each Metering Point shall have a dedicated set of metering class current transformers. Unless otherwise agreed upon by the Parties, all metering shall be type 3.0 element metering, and have three (3) metering accuracy current transformers.

Current transformers shall meet or exceed an accuracy class of 0.3% (as defined in IEEE C57.13), or better. Current transformers shall comply with the minimum BIL rating as specified in standards IEEE C57.13 and ANSI C12.11.

The mechanical and thermal short term current ratings of the current transformer shall exceed or withstand the available fault current, while the secondary burden of the current transformer shall not exceed its stated name plate burden rating.

- 1.3.5 Voltage Transformers Requirements. Each Metering Point shall have a dedicated set of metering class voltage transformers. Unless otherwise agreed upon by the Parties, all metering shall be type 3.0 element metering, and have three (3) metering accuracy voltage transformers. Voltage transformers shall meet or exceed an accuracy class of 0.3% (as defined in IEEE C57.13). The secondary of the voltage transformers shall be exclusively used for the revenue meters only, so as not to exceed the secondary burden of the stated voltage transformer's nameplate burden rating provided, however, that voltage transformers with two secondary windings, may have one winding dedicated to the revenue meters, and the other winding used for the relaying purposes or for other station metering. The nameplate burden rating on either winding must not be exceeded.

Voltage transformers shall comply with the minimum BIL rating as specified in standards IEEE C57.13 and ANSI C12.11.

1.4 Remote Meter Access and Data Communications

For all Interconnection Points, not designated as normally open, the Owning Party that owns the metering equipment at such Interconnection Point, unless otherwise mutually agreed, shall be responsible for installation of the communications facilities (typically consisting of a telephone circuit and modems) for remotely accessing the meter. The Owning Party shall also be responsible for operation and maintenance, and on-going monthly costs of the communication facilities.

1.4.1 Remote Billing Data Retrieval. The Owning Party may provide appropriate communication capability of electronic remote interrogation of the billing data in a manner that is compatible with commonly used billing data systems such as MV-90.

1.4.2 Real Time Communications. Revenue meters shall be capable of communicating with DAS equipment such as Remote Terminal Unit ("RTU") to provide the following real-time bi-directional power and energy data: instantaneous real and reactive power flows per phase and three-phase averaged Root-Mean-Squared ("RMS") voltages, per phase and three-phase averaged RMS currents and frequency with at least two decimal points. Alternative systems which provide the same data may be used upon agreement of the Parties.

1.4.3 Energy Flow Data. A continuous accumulating record of active and reactive energy flows shall be provided by means of the registers on the meters. The deployed revenue meter(s) shall be capable of providing bi-directional energy data flow in either kwh pulse signals format, or accumulated counters to RTU. All Parties shall share the same data register buffers regardless of the types of employed data communication methods. If the accumulation counter method is used, only one Party shall be responsible for freezing the accumulator buffers and the owner of the metering equipment shall freeze them. The accumulator freezing signals shall be synchronized to Universal Coordinated Time within 1/ 2 seconds.

1.5 Metering Device Requirements

All revenue meters shall be programmable and capable of measuring, recording, and displaying bi-directional active and reactive energy and four quadrant power quantities. Where applicable, revenue meters shall be programmable for compensating for power transformer and line losses and, when applicable, such compensation shall be used in determining the settlement of power transferred at the Interconnection Point. The

revenue meters may preferably have at least one serial communication, one Ethernet port, hard-wired “kyl” pulse output, and internal modem for data communication.

1.6 Revenue and Additional Metering

Each Interconnection Point shall have a primary revenue meter and a backup revenue meter, if necessary, both to be owned by ATSI. The revenue meters shall be powered by the station control battery or by automatic transfer to an alternate AC source. However, each Party may have additional metering at any existing Interconnection Point. The Parties will cooperate to determine correct meter values as needed.

1.7 Meter Access

A Party whose metering equipment is located within a substation owned by the other Party shall have reasonable access to said metering equipment for purposes of meter reading, inspection, testing, and other such valid operating purposes, if required. Such access shall not be unreasonably withheld.

1.8 Meter Removal

Upon termination of this Agreement or when the metering is no longer needed, a Party owning meter equipment in another Party's station shall remove such metering equipment from the premises of the other Party within one (1) year after termination or within one (1) year after the Party that owns the meter equipment determines that the interchange metering is no longer needed. In all cases, the removal of the metering equipment shall not inadvisably affect other existing measurement devices.

APPENDIX III

Non-Standard Terms and Conditions

The Parties agree that the Northside Substation Interconnection Point may, without any additional studies or coordination, inject electric power or energy into the transmission system with respect to the injection levels that are equal to or less than the injection levels that existed as of June 1, 2011, consistent with the grandfathered Operating and Interconnection Agreement for Wholesale Load between American Municipal Power, Inc. ("AMP") and FirstEnergy Service Company (on behalf of ATSI and other affiliates of ATSI) ("ATSI") designated as Service Agreement No. 2852 ("S.A. 2852").

Metering Ownership and Load Data Reporting

For wholesale loads located behind the AMPT-ATSI Interconnection Points that are included in the calculations of ATSI zonal load, AMPT shall cooperate with ATSI and PJM to ensure that data is available for hourly energy assignment, peak load contributions and network service peak load values for use in calculating transmission charges and generation capacity obligations. Hourly energy obligations, peak load contribution and network service peak load values will be derived by ATSI using methods referenced in Attachment M to the PJM Tariff. AMP shall continue to serve as the Load Serving Entity ("LSE") for the wholesale loads interconnected with AMPT facilities under this Agreement and with respect to those wholesale loads interconnected with AMP under S.A. 2852, as the same may be amended, and this Agreement and S.A. 2852 shall govern communications of data by and between ATSI and any wholesale loads for which AMP serves as the LSE.

The Parties agree that AMPT owns all of the metering equipment at the Northside Substation Interconnection Point with the exception of the revenue meters (which shall be owned by ATSI) and AMPT or an Affiliate shall continue to provide communication of the revenue meter readings to ATSI or its Affiliates to enable settlements under S.A. 2852. For the avoidance of doubt, ATSI shall own only the revenue meters at the Northside Substation Interconnection Point and no facilities, or equipment, ancillary or related to those revenue meters.

The provisions of S.A. 2852 shall prevail should a conflict exist between this Agreement and S.A. 2852 related solely to metering and data reporting needed for reporting wholesale loads behind the following Interconnection Points:

- Northside Substation

APPENDIX IV

Definitions

“Affiliate”- shall mean with respect to a corporation, limited liability company, partnership or other entity, each such other corporation, limited liability company, partnership or other entity that either directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, limited liability company partnership or other entity.

“Applicable Laws and Regulations”– shall mean all duly promulgated applicable federal, state and local laws, regulations, rules, ordinances, codes, decrees, judgments, directives, or judicial or administrative orders, permits and other duly authorized actions of any Governmental Authority having jurisdiction over the relevant Parties, their respective facilities, and/or the respective services they provide.

“Contractor” – shall mean one or more persons or entities designated by either Party or its Affiliates to provide or perform all or a portion of the supply of any work, services, labor, supervision, equipment, data, materials or any other item related to the Interconnection Points identified in this Agreement.

“Confidential Information” – shall mean information clearly designated or marked in writing as confidential on the face of the document, or, if the information is conveyed orally or by inspection, if the Party providing the information orally informs the Party receiving the information that the information is confidential. If requested by any Party, the disclosing Party shall provide in writing the basis for asserting that the information referred to warrants confidential treatment. “Confidential Information” does not include any information which the receiving Party can demonstrate (a) has become available to the public through no Breach of this Agreement; (b) was previously known by the receiving Party without any obligation to hold it in confidence; (c) was received on a non-confidential basis from a third party free to disclose such information without restriction; or (d) was independently developed by the receiving Party without the use of Confidential Information of the disclosing Party.

“Due Diligence” – shall mean the exercise of commercially reasonable efforts consistent with Good Utility Practice.

“Force Majeure” - shall mean any cause beyond the control of the affected Party, including but not restricted to, acts of God, flood, drought, earthquake, storm, fire, lightning, epidemic, war, riot, civil disturbance or disobedience, labor dispute, labor or material shortage, sabotage, acts of a public enemy or terrorist, explosions, orders, regulations or restrictions imposed by governmental, military, or lawfully established civilian authorities, which, in any of the foregoing cases, by exercise of Due Diligence such Party could not reasonably have been expected to avoid, and which, by the exercise of Due Diligence, it has been unable to overcome. Force Majeure does not include: (i) a failure of performance that is due to an affected Party’s own negligence or intentional

wrongdoing; (ii) any removable or remediable causes (other than settlement of a strike or labor dispute) which an affected Party fails to remove or remedy within a reasonable time; or (iii) economic hardship of an affected Party.

“Good Utility Practice”– shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted in the region; including those practices required by Section 215(a)(4) of the Federal Power Act.

“Governmental Authority” – shall mean any federal, state, local or other governmental, regulatory or administrative agency, court, commission, department, board, or other governmental subdivision, legislature, rulemaking board, tribunal, arbitrating body, or other governmental authority, having responsibility over the Parties, their respective facilities, or the respective services they provide, and exercising or entitled to exercise any administrative, executive, police, or taxing authority or power; provided, however, that such term does not include either Party, nor any Affiliate thereof.

“Interconnection Construction” – shall mean construction to establish an Interconnection Point between the Parties, and the Modification of facilities by one Party materially affecting the facilities of the other Party at an existing Interconnection Point.

“Interconnection Point” – shall mean each point of electrical connection between the Transmission System of one Party and the Transmission System of the other Party as set forth in this Agreement.

“Metering Point” – shall mean each point at which the electrical energy flowing between the Parties at an Interconnection Point is measured.

“Modification” – Any material new construction, additions, design changes or modifications made to, or the abandonment, retirement, relocation or rearrangement of facilities.

“NERC” – shall mean the North American Electric Reliability Corporation or any successor or other entity assuming or charged with similar responsibilities related to the operation and reliability of the North American electric interconnected transmission grid and the electric transmission facilities addressed in this Agreement, including with respect to each Party’s own transmission facilities, any regional or other subordinate council of which the Parties are a member.

“NERC Reliability Standards” – shall mean mandatory and enforceable requirements, administered by NERC, approved by the FERC under Section 215 of the Federal Power Act, to provide for reliable operation of the bulk-power system.

“Non-owning Party” – shall mean the Party that does not own certain facilities as delineated in Appendix I and Appendix II to this Agreement.

“Owning Party” – shall mean the Party that owns certain facilities as delineated in Appendix I and Appendix II to this Agreement.

“PJM Requirement” – shall mean any rule, charge, procedure, or other requirements of PJM, including the PJM Tariff, applicable to FERC-jurisdictional service provided over the Transmission System of either Party.

“PJM Tariff” – shall mean PJM’s Open Access Transmission Tariff as on file with FERC and in effect.

“Representatives” – means a Party’s Affiliates, and the Party’s and its Affiliates’ equity owners, governing persons, officers, employees, advisors, attorneys, and prospective or actual lenders or investors.

“Third Party Claim” shall mean a claim, demand, cause of action or proceeding made or brought by a Person that is not a Party or an Affiliate of a Party.

Service Agreement No. 2852

**~~FOURTH~~FIFTH AMENDED OPERATING AND INTERCONNECTION
AGREEMENT
FOR WHOLESALE LOAD**

Between

AMERICAN MUNICIPAL POWER, INC.

And

FIRSTENERGY SERVICE COMPANY

(on behalf of American Transmission Systems, Incorporated,
The Cleveland Electric Illuminating Company, Ohio Edison Company,
Pennsylvania Power Company and The Toledo Edison Company)

~~Fourth~~Fifth Amended Operating and Interconnection Agreement for Wholesale Load

This Agreement is entered into as of the ~~3rd~~27th day of ~~June~~November, 2018 by and between American Municipal Power, Inc. ("Customer") and the FirstEnergy Service Company (on behalf of American Transmission Systems, Incorporated ("ATSI"), The Cleveland Electric Illuminating Company ("CEI"), Ohio Edison Company ("OE"), Pennsylvania Power Company ("PP"), and The Toledo Edison Company ("TE") (together, "FirstEnergy"), being sometimes herein referred to collectively as the "Parties" or singularly as a "Party." For the avoidance of doubt, the term "Party" or "Parties" shall not include PJM Interconnection, L.L.C. ("PJM") or any transmission owning affiliate of Customer. In consideration of the mutual covenants and agreements herein, it is agreed as follows:

WITNESSETH:

WHEREAS, ATSI, CEI, OE, PP, and TE are subsidiaries of FirstEnergy Corp. that own and operate certain electric facilities used for the transmission and distribution of wholesale electric energy;

WHEREAS, FirstEnergy is entering into this Agreement on behalf of ATSI, CEI, OE, PP, and TE. CEI, OE, PP, and TE are also referred to as the "FirstEnergy Operating Companies";

WHEREAS, Customer is an entity that serves or acts on behalf of others in arranging for the wholesale transmission and distribution of electric energy utilizing facilities owned by ATSI and the FirstEnergy Operating Companies to serve Customer load;

WHEREAS, PJM is a Regional Transmission Organization ("RTO") offering transmission service to eligible customers;

WHEREAS, the Federal Energy Regulatory Commission (“FERC” or the “Commission”) has requested that the Parties include PJM as a signatory to this Agreement for the purpose of ensuring that PJM is kept fully apprised of the matters addressed herein and so that PJM may be kept aware of any reliability and planning issues that arise;

WHEREAS, this Agreement does not provide for the purchase, sale or exchange of transmission or ancillary services; and

WHEREAS, the Parties wish to establish the terms and conditions for the interconnection and coordinated operation of the Parties’ systems and for the Customer’s use of certain transmission and/or distribution facilities to enable the Customer to serve its wholesale loads, which are separate from the rates, terms and conditions of transmission service provided by PJM under the PJM Open Access Transmission Tariff (“PJM Tariff”).

NOW, THEREFORE, in consideration of the premises and of the mutual covenants set forth herein, the Parties agree as follows:

ARTICLE 1: AGREEMENT OBJECTIVE AND APPLICABLE TARIFFS

- 1.1 **Agreement Objective:** The objective of this Agreement is to establish the terms and conditions for the interconnection and coordinated operation of the Parties’ systems and for the Customer’s use of certain transmission and/or distribution facilities to enable the Customer to serve its wholesale loads.
- 1.2 **Limitation of Scope:** Nothing in this Agreement shall be deemed to impose on Customer any obligation or standard of care or performance with respect to facilities used by Customer to serve its members other than those that are owned by Customer (or one or more of Customer’s members) and that are interconnected with FirstEnergy’s system

in the ATSI service territory.

- 1.3 **Applicability of Tariffs:** During the term of this Agreement, as it may be amended from time to time, FirstEnergy agrees to provide Services for the Customer, and the Customer agrees to pay for such Services under the terms and conditions identified in Section 3.9 and Section 8.1 hereto, in accordance with this Agreement. The term “Services” means those services described herein which are subject to the jurisdiction of the FERC but not provided by PJM under the PJM Tariff. In addition, the applicable provisions of the PJM Tariff, as such tariff shall at any time during the term of this Agreement be on file and accepted by FERC, including any applicable Schedules and Attachments appended to such tariff shall apply. FirstEnergy shall not provide any Services or levy any charges hereunder that are provided or charged by PJM under the PJM Tariff. FirstEnergy’s and the Customer’s rights and obligations with respect to Services are limited to the terms hereof.
- 1.4 **Governance Over Conflicts:** The terms and conditions of such Services provided by FirstEnergy shall be governed by this Agreement, or as hereafter amended. In the case of any conflict between this Agreement and the PJM Tariff, the PJM Tariff shall control.
- 1.5 **Good Utility Practice:** The term “Good Utility Practice” as used herein shall mean any of the practices, methods and acts engaged in or approved by a significant portion of the electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. “Good Utility Practice” is not intended to be limited to the optimum practice,

method, or act to the exclusion of all others, but rather to be acceptable practices, methods or acts generally accepted in the region, including those practices required by Federal Power Act Section 215.

ARTICLE 2: DELIVERY POINTS

- 2.1 **Location:** The location of existing facilities connecting the Customer's power delivery facilities to the FirstEnergy power delivery facilities ("Delivery Points") are listed in Appendix 1. Unless the Parties shall subsequently agree otherwise, the existing Delivery Points listed in Appendix 1 shall be continued in service. FirstEnergy and the Customer, to the extent practicable, shall each maintain, in accordance with Good Utility Practice, the facilities on their respective sides of such points, and future points of delivery as may be established from time to time in accordance with Article 3 and Article 5, in order that said facilities will operate in a reliable and satisfactory manner, and without material reduction in their intended capacity or purpose. Delivery Points shall be used only for the delivery of electric power and energy to the Customer, and shall not be used to inject electric power or energy into the FirstEnergy system from electric generating facilities owned by the Customer, a municipal utility, a rural co-operative, or a third party unless the Customer has studied, planned, and coordinated the interconnection of the generation facility with FirstEnergy pursuant to the Application process set forth in Article 5, if required pursuant to subpart (b) of Section 5.2 or at any time, through the PJM Tariff generator interconnection process. For the Delivery Points at Genoa, Galion, Painesville, Oberlin, Bowling Green and Napoleon, these study, planning and coordination requirements shall not apply with respect to injection levels that are equal to or less than the injection levels existing as of June 1, 2011, but shall apply in every other respect.

The Customer and FirstEnergy shall endeavor to operate their respective facilities in continuous synchronism through such Delivery Points as shall from time to time be established by mutual agreement between the Parties. The Parties may, from time to time by mutual agreement, add one or more additional Delivery Points or discontinue or modify one or more existing Delivery Points pursuant to the procedures set forth in Article 5 and shall amend Appendix 1 of this Agreement, including any one-line diagrams set forth therein, to reflect the same. The Parties shall cooperate and exercise their best efforts to amend this Agreement by including one ~~one~~-line diagrams of existing Delivery Points in a new appendix to be filed with FERC by ~~October 1, 2018~~April 30, 2019.

ARTICLE 3: OPERATION AND MAINTENANCE

- 3.1 **General:** Customer must design, construct, maintain, and operate its system facilities safely and efficiently in accordance with Good Utility Practice; applicable national, state, and local codes, standards, and regulations, including those promulgated by NERC, ReliabilityFirst Corporation, and PJM or successor organizations; applicable manufacturer's equipment specifications; and the most current requirements specified by FirstEnergy and applicable to the Services, including but not limited to those set forth by FirstEnergy in the documents entitled "Requirements for Transmission Connected Facilities," "Transmission Planning Criteria" and "Distribution Connection Requirements" as they may be revised from time to time ("FirstEnergy Documents") and posted on its web site. FirstEnergy shall provide Customer with notice pursuant to Section 15.1 of any changes to the FirstEnergy Documents as changes are made from time to time. FirstEnergy shall comply with Good Utility Practice; all applicable

national, state, and local codes, standards, and regulations, including those promulgated by NERC, ReliabilityFirst Corporation, and PJM or successor organizations; applicable manufacturer's equipment specifications; and the most current requirements specified by FirstEnergy and applicable to the Services, including but not limited to those set forth in the FirstEnergy Document. FirstEnergy shall have the right to waive Customer's compliance with the technical requirements provided in the FirstEnergy Document. In the event of a conflict between the provisions of this Agreement and the FirstEnergy Document, the provisions of this Agreement shall govern.

3.2 **Electric Service Characteristics:** Electric service, in the form of three phase, approximately sixty-hertz alternating current, shall be delivered at the designated Delivery Points and nominal voltage(s) listed in Appendix 1.

3.2.1 **Multiple Delivery Points:** When multiple Delivery Points are provided to a specific location identified in Appendix 1, they shall not be operated in parallel by the Customer without the approval of FirstEnergy, which approval shall not be unreasonably withheld; provided that any such approval may be revoked if in FirstEnergy's discretion such action is necessary to maintain or retain safe and reliable operation of the electric system or any of FirstEnergy's facilities. (The three Bowling Green 69 kV delivery points are operated in parallel. Approval of the parallel operation of these delivery points is grandfathered.) The Operating Committee, as provided under Article 9, shall establish and monitor standards and operating rules and procedures to assure that system integrity and the safety of customers, the public and employees are maintained or enhanced when parallel operation is permitted either on a continuing basis or for intermittent switching or

other service needs. Each Party shall exercise due diligence and reasonable care in maintaining and operating its facilities so as to maintain continuity of service.

3.2.2 **Avoidance of Burdens and Control of System Disturbance:** The Parties shall maintain and operate their respective systems so as to minimize, in accordance with Good Utility Practice, the likelihood of a disturbance originating in either system which might cause impairment to the service of the other Party or of any system interconnected with the system of the other Party. For planning purposes, the Customer shall not transfer loads from one Delivery Point to another without FirstEnergy's approval, which timely approval shall not be unreasonably withheld. For normal operational purposes, the Parties shall coordinate transfers of load from one Delivery Point to another Delivery Point, and the Customer shall not transfer loads from one Delivery Point to another without FirstEnergy's approval, which timely approval shall not be unreasonably withheld. The Parties shall make any additional arrangements with respect to load transfers through the Operating Committee, as provided under Article 9.

3.3 **Impairment:** If the function of either Party's facilities is impaired or the capacity of any Delivery Point is reduced, or synchronous operation at any Delivery Point(s) becomes interrupted, either manually or automatically, as a result of force majeure (as such term force majeure is described in the Amended and Restated Operating Agreement of PJM) or maintenance coordinated by the Parties, the Parties will cooperate to remove the cause of such impairment, interruption or reduction, so as to restore normal operating conditions as expeditiously as practicable under Good Utility Practice and the circumstances.

3.4 **Emergencies**: Each Party reserves the right to take any action deemed necessary by PJM or itself during an actual or imminent emergency to preserve the reliability and integrity of the interconnected systems of FirstEnergy and Customer, limit or prevent damage, expedite restoration of service, ensure safe and reliable operation, avoid adverse effects on the quality of service, or preserve public safety.

3.4.1 **Emergency Curtailment**: In an emergency, the reasonable judgment of FirstEnergy, in accordance with Good Utility Practice, shall be the determinant of whether the operation of the Customer loads or equipment adversely affects the quality of service or interferes with the safe and reliable operation of the FirstEnergy system. FirstEnergy may discontinue Service to such Customer until the power quality or interfering condition has been corrected; provided that, to the extent practicable, FirstEnergy will provide reasonable notice to Customer. To the extent practicable under Good Utility Practice and in FirstEnergy's sole discretion, FirstEnergy will provide Customer with an opportunity to alleviate the condition to avoid the discontinuation of Service in an emergency. Any such curtailment of load, redispatching, or load shedding shall be effectuated on a nondiscriminatory basis and in accordance with PJM manuals.

3.5 **Curtailment**: In non-emergencies, FirstEnergy may curtail Service under this Agreement to limit or prevent damage to its generating, transmission, or distribution facilities caused by the Customer's failure to maintain its facilities as directed by PJM or in accordance with Good Utility Practice; provided that, to the extent practicable, FirstEnergy will provide reasonable notice to Customer and an opportunity for Customer to remedy the adverse condition in accordance with Section 3.9. Any such curtailment of load,

redispatching, or load shedding shall be effectuated on a non-discriminatory basis and in accordance with PJM manuals.

- 3.6 **Procedures**: The Operating Committee shall establish procedures to coordinate the maintenance schedules, and return to service of the generating resources, transmission and distribution facilities, to the greatest extent practicable, to ensure sufficient transmission and distribution resources are available to maintain system reliability and reliability of service to the integrated facilities of FirstEnergy and Customer in accordance with FirstEnergy Documents and the requirements of the PJM Tariff and/or PJM Manuals.

- 3.6.1 **Scheduled Maintenance and Outages**: Each Party may, in accordance with Good Utility Practice, remove from service its facilities that may affect the other Party's system in order to perform maintenance or to install or replace equipment on such facilities. The Party proposing to remove such facilities from service shall provide prior notice of such activities to the other Party in accordance with FirstEnergy Documents. The Party scheduling a facility outage shall coordinate its actions with the other Party with the goal of avoiding any disruptions of service on the system of either Party.

- 3.7 **Control of Reactive Power Exchange**: No Party shall be obligated to deliver or receive reactive power for the benefit of any other Party under this Agreement. The Parties will maintain voltage and load power factor requirements at the Delivery Points in accordance with the latest version of the FirstEnergy Documents and/or the PJM Tariff.

- 3.8 **Control of Energy**: Any deviations between actual and planned deliveries of power and energy between the systems of the respective Parties to serve their load will be managed

and settled pursuant to the PJM Tariff and the PJM business practices.

- 3.9 **Failure to Perform:** With respect to non-emergencies, in the event a Party fails to adhere to the provisions of this Article 3, the other Party will provide reasonable notice and an opportunity for the failing Party to remedy any adverse condition(s) on the notifying Party's system that are caused by the Party's failure to adhere to the provisions of this Article 3. Such notice shall be provided in writing, and shall provide at least 180 days for the Parties to develop a mutually agreeable plan to cure the adverse condition(s). If the Parties fail to develop a mutually agreeable plan to cure the adverse condition(s), or if the failing Party does not comply with the plan or meet the timelines included in the plan, the Parties shall first comply with the dispute resolution procedures under Article 11. If a plan for curing the adverse condition(s) is not developed, or compliance with the plan or meeting the timelines included in the plan is not achieved as part of the dispute resolution process under Article 11, the noticing Party may take remedial action on its system as is reasonable and consistent with Good Utility Practice under the circumstances. Such remedial actions may include the installation of facilities on the notifying Party's system, at the other Party's expense, to remedy the adverse condition(s) on the notifying Party's system. Such remedial actions shall not include the curtailment of service unless the adverse condition(s) is likely to cause physical damage to the notifying Party's generating, transmission, or distribution facilities. Incurred charges for facilities planned for or installed pursuant to the immediately preceding sentence shall be limited to the planning or installing Party's actual costs and may include actual direct and indirect labor and non-labor costs to the extent such costs are properly allocable to the planning or installation of the subject facilities.

ARTICLE 4: PLANNING AND PROTECTION

- 4.1 **Planning Data:** No later than December 15 of each year, the Customer shall provide FirstEnergy with: (i) copies of documents provided by Customer to PJM on an annual basis in accordance with provisions of the PJM Tariff that require Customer to submit a ten (10) year forecast of load for each existing and planned new Delivery Point, and a ten (10) year projection of planned generating resources and committed transactions with third parties, insofar as such information pertains to the Customer's existing and planned Delivery Points located or to be located in ATSI's service territory; and (ii) a projection for each of the next ten (10) years of transmission and distribution facility additions to be owned and/or constructed by the Customer, which facilities are expected to affect the planning or operation of the transmission and distribution system within ATSI's territory. Notwithstanding the foregoing, Customer shall not be required to provide FirstEnergy with information that Customer in good faith deems to be proprietary or commercially sensitive.
- 4.2 **Planning Data Communication:** The information in Section 4.1 shall be forwarded to FirstEnergy's representative on the Operating Committee, with a copy to FirstEnergy's representative identified under Article 15.
- 4.2.1 **Disclosure:** Information exchanged by the Parties under this Section will be used for system planning and protection only, and will not be disclosed (i) to third parties, absent mutual consent or order of a court or regulatory agency, or (ii) within FirstEnergy or by FirstEnergy to one or more of its affiliates, except as permitted by FERC's Standards of Conduct.

- 4.3 **Coordination**: The Parties shall coordinate with each other regarding the technical and engineering arrangements for the Delivery Points, including one-line diagrams depicting the electrical facilities configuration and parallel generation, and shall arrange the facilities to avoid interruptions on either Party's system.

**ARTICLE 5: NEW DELIVERY POINTS AND MODIFICATIONS
TO EXISTING DELIVERY POINTS**

- 5.1 **General**: Unless otherwise agreed upon, the procedures outlined in this Article 5 shall be followed for new Delivery Points; upgrades, retirements, replacements, relocations for existing Delivery Points; or additions, retirements, or modifications to behind-the-meter generation. Prior to submitting an application for any facility under this Article 5 ("Application"), the Customer should discuss the proposed Delivery Point project with FirstEnergy to determine the need for an ILS and/or DLS as those terms are defined below as soon as practicable.
- 5.2 **Application**: Should it become necessary or desirable by the Customer to (a) upgrade, retire, replace, or relocate an existing Delivery Point, or establish a new Delivery Point, including metering or other facilities at such location; (b) add, retire, or modify behind-the-meter generation that results in Penetration of generation capacity at each Delivery Point in excess of 15%; (c) for Delivery Points less than 69 kV, add 1 MW or more over any 12-month period above the most recent load forecast provided in Section 4.1; (d) for Delivery Points 69 kV and above but less than 138 kV, add 2 MW or more over any 12 month period above the most recent load forecasts provided in Section 4.1; or (e) for Delivery Points 138 kV and above, add 5 MW or more over any 12-month period above the most recent load forecasts provided in Section 4.1, the Customer shall make

Application requests in writing to FirstEnergy using the then-effective Application forms made available by contacting FirstEnergy's representative under Article 15. With regard to subpart (b), Penetration is defined as the total aggregate generation nameplate capacity from all sources, divided by the peak load at the Delivery Point, expressed as a percentage. Following an initial Application under this subpart (b), subsequent Applications shall be submitted each time the Penetration is increased by 2.5%. For example, an Application shall be submitted when the Penetration reaches 17.5%, and another shall be submitted when the Penetration reaches 20%. The requirement to submit an Application pursuant to this Section 5.2 shall not apply in situations in which load is temporarily transferred from one Delivery Point to another Delivery Point with FirstEnergy's approval.

5.2.1 **Response to Application:** Upon receipt of an Application, FirstEnergy shall review the information and advise the Customer within five (5) business days that the Application is complete, or if additional information is needed to make the Application complete. FirstEnergy will attempt to remedy minor deficiencies in the Application through informal communications with the Customer. If FirstEnergy does not receive the required additional information to complete the Application within fifteen (15) business days, the application will be deemed withdrawn. As soon as practicable within thirty (30) calendar days after receipt of a completed Application, FirstEnergy will inform the Customer of the need for an ILS, and/or DLS as those terms are defined below, and provide the Customer with the appropriate agreement.

5.2.2 **Application Modifications:** If at any point in the process outlined in this

Section 5.2 the Customer is considering modifying the information provided in the Application, any supporting information or the study scope, the Customer may first request that FirstEnergy evaluate whether such modification(s) will be treated as constituting a “Material Modification.” For purposes of this Section 5.2.2, a “Material Modification” shall be any change to an Application that FirstEnergy reasonably determines will materially increase the cost or the length of time required to complete an ILS and/or DLS for any facilities needed to accommodate the project that is the subject of the Application, and may (depending on the specific relevant circumstances) include such changes as an increase in MW capacity, a change in electrical location of the proposed Delivery Point, a change in the study scope, or a delay in the in-service date of the proposed Delivery Point by three (3) or more years. In response to the Customer’s request and at the Customer’s cost, FirstEnergy shall evaluate the proposed modification(s) prior to making them and shall inform the Customer in writing whether FirstEnergy will treat the modification as a Material Modification. If the modification(s) is not treated as a Material Modification, FirstEnergy shall continue to meet all requirements set forth in Section 5.2.1 with respect to the original Application, as modified. If the modification(s) is treated as a Material Modification, FirstEnergy may, at its option, treat the original Application as void and consider the Application, as modified, a new Application, or FirstEnergy may continue to process the Application, as modified, in accordance with the requirements of this Section 5.2. The Customer may withdraw its Application at any time and without cost provided

that the Customer withdraws the Application prior to the Customer's execution of an ILSA and/or DLSA (described below).

- 5.3 **Initial Load Study ("ILS")**: Should an ILS be required due to the complexity in evaluating the Customer's Application caused by preceding projects, the Customer's system configuration, or FirstEnergy's system configuration in the vicinity of the Delivery Point, FirstEnergy shall provide the Customer with an ILS Agreement ("ILSA"). If an ILS is not required due to the lack of complexity in evaluating the Customer's Application, then only a DLS shall be required. The ILSA shall include the scope of work and payment terms to complete the ILS. The Customer shall execute and deliver an executed ILSA within thirty (30) calendar days following receipt of the ILSA form. Upon receipt of the executed study agreement, FirstEnergy shall carry out the ILS. In the ILS, FirstEnergy shall assess the feasibility of modifying an existing Delivery Point or establishing the new Delivery Point, or assessing system impacts caused by changes to behind-the-meter generation. The study shall use power flow and short circuit analyses and any other analyses that may be appropriate to identify the facilities necessary to physically and electrically connect the Delivery Point, identify technical limitations, identify feasible mitigation alternatives, and provide a high level cost estimate to engineer and construct the Delivery Point. If the Customer fails to return an executed ILSA within thirty (30) calendar days of receipt, or at a later date as the Parties mutually agree, FirstEnergy will deem the study request to be withdrawn. The Customer may withdraw its study request at any time by written notice of such withdrawal to FirstEnergy. FirstEnergy shall issue a report to the Customer within sixty (60) calendar days of the receipt of an executed ILSA, or at a later date as the Parties may mutually agree. If

FirstEnergy is unable to complete such study in the allotted time, FirstEnergy shall provide an explanation to the Customer regarding the cause(s) of such delay and a revised completion date reflecting the exercise of diligence by FirstEnergy and a revised study cost estimate. Upon completion of the ILS, the Customer shall reimburse FirstEnergy for the cost of the ILS.

- 5.4 **Detailed Load Study (“DLS”)**: Following the completion of the ILS, if needed, and Customer’s expressed desire to proceed with the project in writing within thirty (30) calendar days of receiving the ILS, FirstEnergy shall provide the Customer a DLS Agreement (“DLSA”) within thirty (30) calendar days of receiving the Customer’s notification. The DLSA shall provide scope of work and the payment terms for the actual cost of the DLS. The Customer shall deliver an executed DLSA to FirstEnergy within thirty (30) calendar days following its receipt, together with required technical data. The DLS shall determine the details and estimated cost of FirstEnergy facilities necessary for establishing or modifying a Delivery Point, and any FirstEnergy system additions/upgrades and Customer additions/upgrades needed. FirstEnergy shall complete the study and issue a DLS report to the Customer within sixty (60) calendar days after receipt of an executed DLSA and necessary data, or at a later date as the Parties may mutually agree. If the Customer fails to return an executed DLSA within thirty (30) calendar days of receipt or at a later date as the Parties mutually agree, FirstEnergy will deem the study request to be withdrawn. The Customer may withdraw its study request at any time by written notice of such withdrawal to FirstEnergy. If FirstEnergy is unable to complete such study in the allotted time, FirstEnergy shall provide an explanation to the Customer regarding the cause(s) of

such delay and a revised completion date reflecting the exercise of diligence by FirstEnergy and a revised study cost estimate. Upon completion of the DLS, the Customer shall reimburse FirstEnergy for the cost of the DLS.

- 5.5 **Modifications to Study Request:** During the course of an ILS or DLS, either the Customer or FirstEnergy may identify desirable changes in the planned facilities that may lower the costs and/or increase the benefits (including reliability) of the planned facilities. Changes proposed by FirstEnergy or Customer must be accepted by the other Party; provided, however, that (i) such acceptance may not be unreasonably withheld, and (ii) changes which are intended to lower the costs and/or increase the benefits (including reliability) of the planned facilities will not be considered modifications that would void the Application. If the revised plan and study schedule are acceptable to both FirstEnergy and the Customer, FirstEnergy will proceed with any necessary restudy. The costs of any additional studies resulting from a modification proposed by FirstEnergy or Customer shall be borne by the Party that proposed the modification.

- 5.6 **Construction:** The Customer shall notify FirstEnergy, in writing, of its intent to proceed with the construction of the proposed facilities identified in the DLS within sixty (60) calendar days of receiving the DLS, or another mutually agreed upon date. Should Customer elect to proceed with construction, FirstEnergy shall provide the Customer with a Construction Service Agreement (“CSA”) specifying the terms and conditions of construction within thirty (30) calendar days after receipt of the Customer’s written notice.

- 5.6.1 **Response to CSA:** Within sixty (60) calendar days of receipt thereof, the Customer shall either execute and return the CSA to FirstEnergy for filing with

FERC or, alternatively, shall request dispute resolution under Article 11 or request that the CSA be filed unexecuted with FERC. FirstEnergy shall file the CSA, in executed or unexecuted form, as applicable, with FERC within ten (10) calendar days following receipt of the executed CSA from Customer or Customer's request that the CSA be filed unexecuted.

5.6.2 **Deferral of Construction:** In the event that the Customer has requested dispute resolution under Article 11 or that the CSA be filed with FERC unexecuted, and unless otherwise agreed by the Customer and FirstEnergy, FirstEnergy shall defer the initiation of design, procurement and construction of any facilities subject to the CSA until all pending disputes are resolved.

5.6.3 **Withdrawal of Application Through Customer's Failure to Act:** If the Customer does not notify FirstEnergy of its intent to proceed with the construction of the facilities within the time period provided in Section 5.6.1, unless otherwise agreed to by the Parties, FirstEnergy may, at its option, elect to have the Application treated as having been withdrawn. In that event, any and all costs incurred by FirstEnergy in connection with the ILS and/or DLS for such Application shall be reimbursed by Customer to FirstEnergy to the extent not already paid by the Customer. Unless otherwise agreed by the Parties, the Customer shall not be responsible for any design, procurement, or construction costs incurred by FirstEnergy unless the Customer has executed a CSA.

5.6.4 **Withdrawal of Application Through FirstEnergy's Failure to Act:** If FirstEnergy does not file the CSA with FERC in executed or unexecuted form within the time period set forth in Section 5.6.1, unless otherwise agreed to by the

Parties, Customer may, at its option, elect to have the Application treated as having been withdrawn. In that event, any and all costs incurred by Customer in connection with such Application shall be reimbursed by FirstEnergy to Customer.

5.7 **Responsibility for Delivery Point Costs:** The purpose of this Section 5.7 is to provide guiding principles regarding cost responsibility for services provided under a CSA under this Article 5.

5.7.1 **In-Line Facilities:** Except as provided by subsection 5.7.3 below, switches, conductors and associated equipment, including support structures for such facilities, that are operated in-line with the FirstEnergy system and are necessary to establish, support, or expand a Delivery Point under this Agreement shall be provided, owned, operated and maintained by FirstEnergy. In-line facilities are those facilities that provide network benefits to the FirstEnergy system and that are located on FirstEnergy's side of the Delivery Point. The costs associated with such in-line and associated facilities will be "rolled-in" to FirstEnergy's rates for wholesale service taken over transmission or distribution facilities and will not be directly assigned to Customer.

5.7.2 **In-Line Facility Design:** All in-line Delivery Point facilities to be rolled into FirstEnergy rates shall be designed and installed in accordance with the then applicable FirstEnergy standards applicable to FirstEnergy and its affiliates, and to FirstEnergy's non-affiliate customers, including those set forth in the FirstEnergy Document. If the Customer requests in-line facilities different from those required by the FirstEnergy system standards, the Customer will be

required to pay the incremental installed cost, if any, of those facilities above the cost of the facilities that would have been required by the FirstEnergy system standards, including taxes applicable on contributions-in-aid of construction (“CIAC”). All in-line facilities shall provide at least the capacity and system protective capabilities of those required by the FirstEnergy system standards.

- 5.7.3 **Two-Way Supply**: When FirstEnergy system standards, including those set forth in the FirstEnergy Document, require the FirstEnergy system to loop through the Customer’s substation (two-way supply), all substation equipment that is part of the networked FirstEnergy system, including buss work, switches/breakers and other facilities located in the Customer’s substation shall be constructed and owned by the Customer in accordance with the FirstEnergy system standards, and the cost thereof shall be the Customer’s responsibility, unless such equipment provides network benefits to the FirstEnergy system, in which case the equipment will be owned by FirstEnergy and the cost thereof shall be FirstEnergy’s responsibility. FirstEnergy shall retain operational control, and any access required for such operation, of such facilities and, unless otherwise agreed, the Customer shall, in coordination with FirstEnergy, maintain the buss work, switching/breakers and other facilities that are part of the networked FirstEnergy system and located in the Customer’s substation, in accordance with the FirstEnergy system standards and practices, and the cost thereof shall be the Customer’s responsibility, unless the equipment provides network benefits to the FirstEnergy system, in which case the cost thereof shall be FirstEnergy’s responsibility.

- 5.7.4 **Load-Side Facilities:** Unless otherwise agreed, all tap lines and distribution substations and other facilities on the Customer's side of the Delivery Point (other than metering), not located in-line with the FirstEnergy system, shall be provided, owned, operated and maintained by the Customer, and the cost thereof shall be the responsibility of the Customer.
- 5.7.5 **Single-Owner Design Basis:** The location and design of the new Customer Delivery Point(s) shall be determined based upon a hypothetical single owner concept, i.e. as if the FirstEnergy system and the applicable Customer's facilities were all owned by either FirstEnergy or the Customer, but not both. Accordingly, the "single owner" solution shall be based upon the lowest aggregate construction cost to the Customer and FirstEnergy collectively, without regard to cost allocation principles set forth in this Section 5.7, but consistent with the FirstEnergy system standards and Good Utility Practice. FirstEnergy and the Customer shall mutually agree upon the location and design of new Customer Delivery Points consistent with the single owner concept.
- 5.7.6 **System Upgrades:** System upgrades on the FirstEnergy system necessary as a result of a Customer Delivery Point request shall be constructed, owned, operated and maintained by FirstEnergy, and the cost thereof shall be rolled into FirstEnergy's wholesale transmission or distribution rates, and shall not be directly assigned to the Customer. System upgrades on the Customer's system necessary as a result of FirstEnergy system upgrades shall be constructed, owned, operated and maintained by the Customer at the Customer's cost. If service to an existing Delivery Point would be affected or discontinued by virtue of the

retirement, removal, or relocation of a FirstEnergy line, FirstEnergy will work with the Customer to provide comparable service based on the single-owner design basis set forth in Section 5.7.5, using reasonable efforts to provide similar service at a new or modified Delivery Point.

5.7.7 **Sunk Cost Recovery**: Customer shall reimburse FirstEnergy for costs incurred in planning or constructing facilities at Customer's request if Customer fails to take the service requested after execution by the Customer of the CSA. In such a case, Customer will reimburse FirstEnergy to the extent that FirstEnergy incurs the cost of construction and (a) Customer fails to construct a substation or other necessary and agreed upon facilities on the Customer side of the Delivery Point, or otherwise fails to perform under the applicable CSA, or (b) notwithstanding Customer's or Customer's member's full performance under the applicable CSA, all or substantially all of any proposed new or additional load greater than 5 MW of a single retail customer for which the Delivery Point was specifically requested, fails to be added, such that the requested new or expanded Delivery Point is no longer required (Sunk Costs). FirstEnergy shall have the right to require financial security (letter of credit or other liquid security) from Customer to support Customer's payment obligations under this paragraph if and to the extent that FirstEnergy determines the at-risk cost to exceed Customer's level of unencumbered credit under FirstEnergy's normal credit review procedures and standards.

5.7.8 **Generator Interconnections**: The costs of facilities necessary to interconnect, and the application, agreement, process and other requirements for the

interconnection of the Customer's generation or the generation of a third-party connected to the Customer's system to FirstEnergy facilities is beyond the scope of this Agreement and shall be addressed in accordance with the rules applicable to generator interconnections.

ARTICLE 6: METERING

- 6.1 **Measurement of Load at Each Delivery Point:** Electric power and energy delivered under this Agreement shall be measured by suitable metering equipment as described below. All metering quantities shall be measured at the Delivery Point and metering accuracy shall meet the required ANSI standards and PJM standards, as set forth in the PJM Tariff and PJM Manuals. The location of the meter shall be called the Metering Point. Based upon mutual agreement between the Parties, the Metering Point can be at a location different from the Delivery Point, such as at a location on the low voltage side of a substation voltage step-down transformer, in which event metered values shall be adjusted to the Delivery Point using mutually acceptable compensation factors. The Parties may use metering configurations that require the use of compensation factors unless it shall be commercially unreasonable to do so; provided that nothing herein shall be intended to require modification of existing metering configurations that are based on the use of compensation factors. The Customer's load, kW, kWh and kVAr at each Delivery Point shall be measured on an integrated hourly basis, by revenue grade metering equipment. The metering equipment and all measurements by such equipment shall be as needed for all settlement purposes under this Agreement, the PJM Tariff, the PJM Manuals, and in accordance with FirstEnergy's then effective standards and practices. Peak load measurements at a Delivery Point shall be adjusted to eliminate

the incremental effects of any load transfers to such Delivery Point from another Delivery Point resulting from supply outages or planned maintenance by FirstEnergy affecting the other Delivery Point, or planned maintenance of the Customer's system conducted with FirstEnergy's consent affecting the other Delivery Point. At points where power may flow to and from the Customer, separate measurements shall be obtained for each direction of flow. Any necessary metered data shall be made available with such frequency and at such times as may be reasonably required by the Customer, FirstEnergy or PJM in suitable electronic format.

- 6.2 **Metering Equipment:** FirstEnergy shall own, operate and maintain the revenue metering equipment as provided in the FirstEnergy Document or required by PJM related to each Delivery Point. The costs associated with such metering equipment, including meter operation and maintenance, and meter reading and billing, shall be recovered from the Customer through the Customer Charges provided under Section 8.1 or FirstEnergy transmission rates approved by FERC. Costs associated with additional metering or telecommunication equipment requested by the Customer shall be paid by the Customer.
- 6.3 **Real Time Data:** If FirstEnergy, Customer, or PJM requires real-time load or facility status information from any Delivery Point, the Parties shall cooperate, to the extent necessary, in order that such monitoring and telecommunications equipment, as shall be needed for such purpose may be installed and maintained during normal business hours common to FirstEnergy and Customer.
- 6.4 **Data Communications:** At the request of Customer, FirstEnergy will cooperate with Customer on the installation of any additional communication equipment to allow for connection of the metering to the Customer's real time SCADA system equipment or

other monitoring equipment, provided that such equipment connections and communications can be accomplished in a manner that does not interfere with the operation of FirstEnergy equipment or fulfillment of any statutory or contractual obligation. If the potential for such interference exists, FirstEnergy will work with the Customer, through reasonable measures, to resolve such metering and/or communications issues. FirstEnergy will make reasonable efforts to send Customer meter data at the Customer's request in the event of a communication failure and provided FirstEnergy is in possession of the data at the time of the request.

6.5 **Meter Security:** All meters and test switches, whether provided by FirstEnergy or Customer, shall be sealed and the seals shall be broken only when the meters are to be tested, adjusted, repaired or replaced. The other Party shall be provided as much advance notice as is practicable in the circumstances when the facilities of that Party are to be entered or the seals of any meter are to be broken, and such Party shall be afforded the opportunity to be present during such test, adjustment, repair, or replacement.

6.6 **Meter Testing:** FirstEnergy shall test the metering equipment at suitable intervals and its accuracy of registration shall be maintained in accordance with Good Utility Practice. At the request of the Customer, a special test shall be made, but if less than two percent inaccuracy is found, the requesting party shall pay for the test. Representatives of the Parties may be present at all routine or special tests and whenever any readings for purposes of settlement are taken from meters not having an automatic record. If any test of metering equipment discloses an inaccuracy exceeding two percent, the accounts of the Parties shall be adjusted for the period, not exceeding nine (9) months, during which such inaccuracy is estimated to have existed. Should any metering equipment fail to

register, the amounts of energy delivered shall be estimated from the best available data.

ARTICLE 7: COMPLIANCE WITH PJM TARIFF AND PJM MANUALS

- 7.1 **Definitions:** Capitalized terms not defined in this Article 7 shall have the meaning ascribed to them by the PJM Tariff and/or the applicable PJM Manuals.
- 7.2 **General:** Each Load Serving Entity ("LSE"), as that term is defined under the PJM Tariff and used by PJM, is responsible for complying with all PJM Tariff and PJM Manual requirements. Unless otherwise agreed, FirstEnergy shall have only such responsibilities to assist Customer in meeting its obligations, as shall be required pursuant to the PJM Tariff, PJM Manuals and this Agreement. FirstEnergy shall cooperate with PJM and Customer (or Customer-designated Scheduling Agent) to the extent necessary and appropriate to ensure that data is available to PJM for Customer's hourly energy assignment, and peak load contributions for use in calculating transmission charges and generation capacity obligations as discussed below. Hourly energy obligations, peak load contribution and network service peak load values as described further in this Article 7 will be derived using methods referenced in Attachment M to the PJM Tariff. FirstEnergy will also provide Customer the information provided to PJM annually under Sections 7.2 and 7.3.
- 7.3 **Network Service Peak Load ("NSPL"):** In December of each calendar year, FirstEnergy shall provide to PJM the zonal coincident peak ("ICP" or "NSPL") of each LSE within the ~~FirstEnergy~~ATSI pricing zone in the hour of the ~~FirstEnergy~~ATSI peak load for the twelve (12) consecutive months ending on October 31 of the year prior to the calendar year during which the NSPL will be used. The network service peak load ratio share shall be used as the transmission service billing determinant for transmission

service charges and annual FTR allocations. If the basis of NSPL and FTR allocation determinations is changed, FirstEnergy shall cooperate with PJM and the Customer to the extent necessary and appropriate to make available such data as is needed. In order to verify the data, FirstEnergy shall provide the data to the Customer prior to the annual submission to PJM, and Customer and FirstEnergy shall work in good faith to resolve any disagreement about the data (with any unresolved dispute being subject to dispute resolution under Article 11).

- 7.4 **Peak Load Contribution (“PLC”)**: FirstEnergy shall provide to PJM the PLC of each LSE in the ~~FirstEnergy~~ATSI pricing zone on a forecasted annual and on a day-ahead basis for the purpose of calculating the LSE's capacity obligation to serve its load. Pursuant to PJM's Tariff, FirstEnergy will be annually informed of the day and hour of the five highest PJM unrestricted daily peaks (“5CP”) for the period described in the PJM Tariff. FirstEnergy will then determine each LSE's contribution to the 5CP loads of the ~~FirstEnergy~~ATSI control zone. This load ratio will be applied to the forecasted ~~FirstEnergy~~ATSI control zone load, adjusted for weather normalization and forecasted load growth, to determine each LSE's peak load contribution. Pursuant to PJM's Tariff, this information may be utilized in the development of each LSE's capacity obligation. In order to verify the data, FirstEnergy shall provide the PLC information to the Customer prior to submission to PJM, and Customer and FirstEnergy shall work in good faith to resolve any disagreement about the data (with any unresolved dispute being subject to dispute resolution under Article 11). If the basis used to determine PLC and relative determinations of Customer load obligations is changed, FirstEnergy shall cooperate with PJM and the Customer to the extent necessary and appropriate to make

available such data as is needed.

7.5 **Hourly Energy Requirements:** FirstEnergy will also provide to PJM each working day, via PJM's InSchedule system, the initial hourly energy assignment (load plus losses) for each LSE in the ~~FirstEnergy~~ATSI zone. The data will be provided per PJM protocols and timelines which subsequently will also be available for the Customer to view through PJM web-based applications. Pursuant to PJM's Tariff, such data may be used to calculate each LSE's obligation for each hour for the next day. Unless a transfer of load obligation from or to the Customer (LSE) to or from another Customer (LSE) is recognized, the obligation will not change daily. Within two months of the end of each settlement month, FirstEnergy shall validate the LSE's hourly load and submit the changes via the InSchedule system, as appropriate, to enable PJM to resettle the respective LSE's account. If the basis used by PJM to receive hourly energy assignments for the LSE, or to calculate each LSE's obligation for each hour for the next day, is changed, FirstEnergy shall cooperate with PJM and the Customer to the extent necessary and appropriate to make available such data as needed. The Customer may submit hourly load data to FirstEnergy to replace estimated load data determined by FirstEnergy, and FirstEnergy shall use the Customer's data when practicable.

7.6 **Behind the Meter Generation:** FirstEnergy shall cooperate with PJM and the Customer to ensure that PJM receives generator output meter information it requires for the following two categories of behind-the-meter generators operating within the combined service territories of the FirstEnergy operating companies.

7.6.1 **Generators that do not participate in the PJM Markets:** The generating party shall comply with the PJM generator data requirements for generators that

do not participate in the PJM Markets.

7.6.2 **Generators that do participate in the PJM Markets:** The generating party shall comply with the PJM interconnected generator data requirements for the generators that participate in the PJM Markets.

7.7 **LMP Node/Zone Aggregator:** Pursuant to PJM's Tariff, LSEs in PJM may choose to have PJM use the zonal average load weighted LMP used as the basis for energy delivery pricing or request a specific load bus aggregate prior to the annual FTR allocation processes. It is the responsibility of the LSE to contact PJM in a timely manner if a specific load aggregation is desired. Pursuant to PJM's Tariff, PJM may in turn request FirstEnergy to work with the LSE to determine the appropriate configuration of the load bus aggregate. FirstEnergy will cooperate with Customer in order to derive an LMP load bus aggregate, using existing transmission planning case studies to determine the percent of the load at each load bus that is served by the LSE. If FirstEnergy determines that existing studies are not sufficient and additional study development is needed to satisfy the Customer's request, the Customer may be asked to execute a study agreement and reimburse FirstEnergy for the study-related costs. The LSE may provide such data to PJM and, based on results from PJM, the LSE will choose whether to utilize the aggregate or the FirstEnergy zonal weighted average LMP price.

ARTICLE 8: COMPENSATION

8.1 **Compensation for Wholesale Service:** The Customer shall pay FirstEnergy only the rates and charges specified in this Section 8.1, and accepted or approved by FERC, and for charges pursuant to Section 3.9 as compensation for Services provided by FirstEnergy to the Customer pursuant to this Agreement.

8.1.1 **Wholesale Distribution Rates:** The Customer shall pay wholesale distribution charges using the rates for Services taken over distribution facilities as specified in Appendix 1.

8.1.2 **Customer Charge:** The Customer shall pay the following monthly Customer Charges for each Delivery Point, as applicable.

8.1.2.1 For Delivery Points at 69 kV and above: No charge.

8.1.2.2 For Delivery Points below 69 kV and at 23 kV or above:
\$85.00/Delivery Point per month.

8.1.2.3 For Delivery Points below 23 kV:
\$38.00/Delivery Point per month

8.2 **Losses:** The Customer's load shall be adjusted for settlement purposes under Section 8.1.1 for wholesale distribution charges to include both FirstEnergy's transmission and distribution losses. Distribution loss factors are specified in Appendix 1. Transmission loss factors are the loss factors for Transmission Service and Network Integration Transmission Service as defined by the PJM Tariff, and they shall be provided in Attachment H-21 to the PJM Tariff for the ATSI zone. To the extent Customer's load at any Delivery Point is supplied from behind-the-meter generation, losses shall be assessed only for the net load delivered to such Delivery Points by FirstEnergy.

- 8.3 **Billing and Payments:** Bills shall be rendered as soon as practicable in the month following the calendar month in which Service was provided or expenses incurred, and shall be due and payable, unless otherwise agreed upon, within thirty (30) days of receipt of such invoices. Payment to FirstEnergy shall be made by electronic transfer or such other means as shall cause such payment to be available for the use of the payee. Interest on unpaid amounts shall accrue daily at the then current prime interest rate (the base corporate loan interest rate) published in the Wall Street Journal, or, if no longer so published, in any mutually agreeable publication, plus 2% per annum, but will in no event exceed the maximum interest rate allowed pursuant to Ohio law, and shall be payable from the due date of such unpaid amount and until the date paid.
- 8.4 **Disputes:** All invoices (whether or not disputed) shall be paid in full under the conditions specified in this Article 8. Disputes will be submitted for settlement under the procedures specified under Article 11. Any portion of the invoice in dispute shall be paid into an independently administered escrow account to be established with a qualified depository institution, where the funds will be held pending resolution of the dispute. Within thirty (30) calendar days after the resolution of the dispute, the Party that owes money to the other Party shall pay the amount determined to be due, by full or partial disbursement of the funds held in escrow, together with interest calculated in accordance with the methodology set forth in FERC's regulations at 18 C.F.R. § 35.19(a)(2)(iii). Any amounts remaining in the escrow account following such disbursement shall be made available to the Party that made the payments into the escrow account.
- 8.5 **Taxes:** It is expressly agreed by the Parties that, as part of any compensation to be paid under this Agreement, if any, during the term hereof there should be levied and/or

assessed against either Party any direct tax, including, but not limited to sales, excise or similar taxes (other than taxes based on or measured by net income), by any taxing authority on the power and/or energy manufactured, generated, produced, converted, sold, purchased, transmitted, interchanged, exchanged, exported or imported by the supplying Party to the other Party, such supplying Party shall be fully compensated by the other Party for such direct taxes. Upon the timely request by (and at the sole expense of) the other Party, the supplying Party shall appeal, protest, seek abatement or, or otherwise contest any tax imposed by any taxing authority for which the other Party may be required to reimburse the supplying Party. The other Party shall pay to the supplying Party on a periodic basis, as invoiced by the supplying Party, the documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. The supplying Party reserves the right to make all decisions with regard to the prosecution of such appeal, protest, abatement or other contest, including settlement of claim, provided the supplying Party shall cooperate and consult in good faith with the other Party regarding the conduct of such contest. Unless the payment of such taxes is a prerequisite to an appeal or abatement or cannot be deferred, no amount shall be payable by the other Party to the supplying Party for such taxes until they are assessed by a final, non-appealable order by any court or agency of competent jurisdiction. In the event that a tax payment is withheld and ultimately due and payable after appeal, the other Party will be responsible for all taxes, interest, and penalties, other than any penalties attributable to any delay caused by the supplying Party.

ARTICLE 9: OPERATING COMMITTEE

- 9.1 **Purpose:** An Operating Committee consisting of a representative and alternate from

each Party familiar with the day-to-day operations of their respective systems shall be established to coordinate and implement, on an ongoing basis, the terms and conditions of this Agreement, including planning, operating, scheduling, redispatching, curtailments, control requirements, technical and operating provisions, integration of equipment, hardware and software, and other considerations. Each Party shall evidence its appointments to the Operating Committee by written notice to the other Party and, by similar notice, each Party may change its representative and/or alternate to the Operating Committee.

- 9.2 **Membership:** Each member and alternate shall be a responsible person working with the day-to-day operations of their respective system. The Operating Committee shall represent FirstEnergy and Customer in all matters arising under this Operating Agreement and which may be delegated to it by mutual agreement of the Parties hereto.
- 9.3 **Meetings:** The Operating Committee shall meet or otherwise conference at the request of either Party upon reasonable notice and each Party may place items on the meeting agenda. All proceedings of the Operating Committee shall be conducted by its members taking into account the exercise of Good Utility Practice.
- 9.4 **Operating Committee Disputes:** If the Operating Committee is unable to agree on any matter coming under its jurisdiction within 30 days after it is presented, that matter shall be submitted for settlement under the procedures specified in Article 11, or otherwise, as mutually agreed by the Customer and FirstEnergy.

ARTICLE 10 - FINANCIAL RESPONSIBILITY

- 10.1 **Allocation of Responsibility:** Except to the extent otherwise required by law, each Party

(the “Indemnifying Party”) shall defend, indemnify and hold harmless the other Party (the “Indemnified Party”), and the Indemnified Party’s officers, shareholders, members, managers, representatives, directors, agents and employees, from and against any and all claims and/or liabilities for losses, costs or expenses (including to third parties), damage to property, injury to or death of any person, or any other liability incurred by the Indemnified Party, including reasonable attorneys’ fees(each a “Covered Claim”), in any manner directly or indirectly arising from or contributed to by the provision of service or the construction of facilities by the Indemnifying Party under this Agreement, except to the extent that the losses, expenses or damage were caused wholly or in part by any negligence or willful misconduct of the Indemnified Party. The Indemnified Party agrees to provide the Indemnifying Party with notice of any claim made against the Indemnified Party for which the Indemnifying Party may be responsible under this Section. To the extent that Customer and FirstEnergy are jointly liable for a Covered Claim, then liability for such Covered Claim shall be allocated between them in accordance with applicable laws of comparative fault or joint liability in effect at the time liability under a Covered Claim arises.

- 10.2 **Consequential Damages:** No Party nor any of its affiliates, members, shareholders, officers, directors, employees, agents, successors or assigns shall be liable under this Agreement, whether in contract, tort (including negligence and strict liability) or otherwise, to the other Party or any of its affiliates, members, shareholders, officers, directors, employees, agents, successors or assigns for incidental, punitive, special, indirect, multiple, exemplary or consequential damages (including without limitation attorneys’ fees, litigation costs, lost profits or revenues, or loss of good will) connected

with or resulting from performance or non-performance of this Agreement.

ARTICLE 11: ARBITRATION

- 11.1 **Submission to Arbitration:** No dispute arising under this Agreement may be submitted to arbitration unless the Parties have made a good faith attempt to resolve such dispute by referral to the Operating Committee. The Operating Committee will seek to resolve the dispute within 30 days unless otherwise agreed by the Parties. In the event the dispute is not resolved by the Operating Committee, the dispute may, if both Parties agree, be submitted to binding arbitration in the manner hereinafter provided. Arbitration is limited to disputes between the Parties with respect to (1) any matter herein specifically made subject to arbitration, (2) any question of operating practice involved in performance of this Agreement, (3) any question of fact involved in the application of provisions of this Agreement, or (4) the interpretation of any provision of this Agreement. In the event the matter is not submitted to binding arbitration, either Party may invoke other dispute resolution procedures to the full extent permitted by law.
- 11.2 **Appointment of Arbitrators:** In the event that the Parties determine that a disagreement should be resolved through binding arbitration, the Parties shall set forth in writing the subject or subjects to be arbitrated, and the Parties thereupon shall endeavor to agree upon and appoint one person to act as sole arbitrator. If the Parties fail to agree on an arbitrator within a period of fifteen (15) business days from the receipt of the original notice, either Party may call for appointment of a board of arbitrators skilled with respect to matters of the character involved in the disagreement, naming one arbitrator in such notice. The other Party shall, within ten (10) business days after the receipt of such call, appoint a second arbitrator, and the two arbitrators so appointed shall choose and appoint

a third arbitrator. In case such other Party fails to appoint an arbitrator within said ten (10) business days, or in case the two so appointed fail for ten (10) business days to agree upon and appoint a third, the Party calling for the arbitration, upon five (5) business days' written notice delivered to the other Party, shall apply to the person who at the time shall be the most senior Judge of a United States District Court having jurisdiction for appointment of the second or third arbitrator, as the case may be.

- 11.3 **Arbitration:** The sole arbitrator, or the board of arbitrators, shall afford adequate opportunity to the Parties to present information with respect to the question or questions submitted for arbitration and may request further information from either or both Parties. The findings and award of the sole arbitrator or of a majority of the board of arbitrators shall be final and conclusive with respect to the question or questions submitted for arbitration and shall be binding upon the Parties, and may be challenged only in the manner and to the extent permitted by Ohio law. If there is a single arbitrator, the Parties shall split evenly the costs of a single arbitrator, unless the award shall specify a different division of the costs. If there is a board of arbitrators, each Party shall pay for the services and expenses of the arbitrator appointed on its behalf, and they shall split evenly the costs of the neutral arbitrator, unless the award shall specify a different division of the costs. All other costs incurred in connection with the arbitration shall be paid by the Party incurring them.

- 11.4 **FERC Jurisdiction:** The determination of a matter in dispute pursuant to arbitration hereunder shall not operate to limit or displace FERC's statutory jurisdiction over any such matter. Accordingly, following the completion of arbitration procedures, either Party may seek FERC review of the arbitration decision, but only to the extent the

arbitration decision affects matters subject to FERC's statutory jurisdiction. Nothing herein shall affect the statutory exemption from FERC jurisdiction available to Customer under Section 201(f) of the Federal Power Act.

ARTICLE 12: TERM AND TERMINATION OF AGREEMENT

- 12.1 **Effective Date, Terms and Termination:** This Agreement shall be effective as of the date first written above, or such later date as the last necessary regulatory approval hereof shall be obtained (unless an earlier date is specified by the regulatory authority having jurisdiction), and shall remain in effect until the date falling on the fifth (5th) anniversary of the date hereof (the "Initial Term"). The Agreement will remain in effect thereafter for successive twelve (12) month periods ("Renewal Terms") unless it is terminated in whole pursuant to Section 12.2 or 12.4 or in part pursuant to Section 12.3.
- 12.2 **Notice of Termination:** Either Party may terminate this Agreement effective after the Initial Term or the end of a Renewal Term by providing to the other Party at least twelve month's advance written notice of its intent to terminate this Agreement.
- 12.3 **Withdrawal of Member of Customer:** In the event any member of the Customer receiving Services provided by FirstEnergy pursuant to this Agreement ceases, for any reason, to be a member of the Customer or take power supply from the Customer, then, upon FirstEnergy's receipt of written notice from the Customer of the relevant member's cessation of membership or power supply agreement, the Customer shall be responsible for any costs incurred by FirstEnergy related to the member's cessation. Further, the Parties shall cooperate and coordinate to the extent necessary in order to ensure that the member's load is properly accounted for after cessation. The Parties agree to promptly

modify Appendix 1 to this Agreement to remove the relevant Delivery Point(s) therefrom following FirstEnergy's receipt of the notice from the Customer regarding the municipal utility's cessation of membership.

- 12.4 **Other Permitted Termination:** Notwithstanding Sections 12.1 and 12.2, this Agreement may be terminated earlier (a) if the Parties mutually agree or (b) as otherwise expressly provided for in this Agreement following the expiration of any required notice and opportunity to cure. Both Parties reserve their right to seek relief from FERC or a court of competent jurisdiction with respect to any such termination.

ARTICLE 13: REGULATORY AUTHORITIES

- 13.1 **Regulatory Authorities:** This Agreement is made subject to the jurisdiction of any governmental authority or authorities having jurisdiction over the Parties, the systems of the Parties, this Agreement and the subject matter hereof. Nothing contained in this Agreement shall be construed as affecting in any way, the right of a Party furnishing service under this Agreement to unilaterally make application to FERC for a change in the rates and charges or other terms and conditions of this Agreement under Section 205 of the Federal Power Act and pursuant to the FERC's Rules and Regulations promulgated thereunder or any Party receiving service to file a complaint seeking changes in rates and charges or other terms and conditions of this Agreement under Section 206 of the Federal Power Act.
- 13.2 **Adverse Regulatory Change:** Following execution of this Agreement, FirstEnergy shall file it with FERC. The Customer shall not protest the filing and FirstEnergy may represent in its filing that the Customer supports the filing. Each Party hereby agrees to

not, directly or indirectly, aid or support any person or entity that protests or intervenes in such filing before FERC. Any material changes or conditions imposed by the FERC or any other governmental authority with competent jurisdiction in connection with such submission or otherwise in respect of this Agreement, any of which are unacceptable to a Party after the Parties' good faith attempt to negotiate a resolution to such objectionable change or condition, shall be cause for termination of this Agreement upon thirty (30) days' prior written notice by the non-consenting Party to the other parties hereto.

ARTICLE 14: OTHER

14.1 **Assignment:** This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties. Successors and assigns of PJM shall become signatories to this Agreement for the limited purpose described herein applicable to PJM. This Agreement shall not be assigned by any Party without the written consent of the other Party, which consent shall not be unreasonably withheld or delayed, except that consent shall not be required if the assignment is to a successor to which substantially all of the business and assets of such Party shall be transferred or to an affiliate of the assigning Party for the purposes of a corporate restructuring.

14.2 ~~Replacement of Prior Agreement: Customer agrees not to oppose termination of the 3rd Revised Service Agreement No. 214 for Network Service and Network Operations between ATSI and American Municipal Power Ohio, Inc. as filed in FERC Docket ER09-994. Network~~
Integration Transmission Service: Customer further agrees to enter into all agreements necessary for the Customer to receive Network Integration Transmission Service from PJM, including but not limited to a Network Integration Transmission Service Agreement between the Customer and PJM, ~~beginning on the effective date of the~~

~~termination of the 3rd Revised Service Agreement No. 214. This Agreement and these additional PJM agreements shall replace and supersede the 3rd Revised Service Agreement No. 214 for Network Service and Network Operations between ATSI and American Municipal Power Ohio, Inc. as filed in FERC Docket ER09-994. It is the intent of the Parties that there will be continuity of service between the existing Network Service and Network Operations Agreement No. 214 and this Agreement and any PJM Network Integration Transmission Service Agreement. If FERC's orders effectively prevent the continuity of service, the Parties will continue to recognize and perform under the existing agreement.~~

- 14.3 **Waivers**: Any waiver at any time by either Party of its rights with respect to default under this Agreement, or with respect to any other matter arising in connection with this Agreement, shall not be deemed a waiver with respect to any subsequent default or matter. Any delay, short of the statutory period of limitation, in asserting or enforcing any right under this Agreement, shall not be deemed a waiver of such right.
- 14.4 **Liability**: Nothing in this Agreement shall be construed to create or give rise to any liability on the part of PJM, and the Parties expressly waive any claims that may arise against PJM under this Agreement. The Parties acknowledge and understand that the signature of the authorized representative of PJM on this Agreement is for the limited purpose of acknowledging that a representative of the PJM has read the terms of this Agreement. The Parties and PJM further state that they understand that the FERC desires that the Parties keep PJM fully apprised of the matters addressed herein as well as any reliability and planning issues that may arise under this Agreement, and that the signature of the PJM authorized representative shall not in any way be deemed to imply that the

PJM is taking responsibility for the actions of any Party, that PJM has any affirmative duties under this Agreement, or that PJM is liable in any way under this Agreement.

- 14.5 **Choice of Law:** The validity and meaning of this Agreement shall be governed by and construed in accordance with federal law where applicable and, when not in conflict with or preempted by federal law, by the applicable laws of the State of Ohio.
- 14.6 **Counterparts:** This Agreement may be executed in two or more counterparts and each such counterpart shall be deemed an original and all such counterparts together shall constitute one and the same instrument.
- 14.7 **Confidentiality:** Except as otherwise provided by law, no Party shall disclose to third parties (which term does not include attorneys and consultants, who shall be required to comply with this Section) Confidential Information obtained from the other Party pursuant to this Agreement except in order to comply with the requirements of FERC, NERC, ReliabilityFirst, PJM, or other governmental authority. Each Party shall use reasonable efforts to prevent or limit the disclosure required to third parties under this Section. For the purpose of this Section, "Confidential Information" shall mean any confidential, proprietary or trade secret information of a plan, specification, pattern, procedure, design, device, list, concept, policy or compilation relating to the present or planned business of a Party which is designated as confidential by the Party supplying the information, whether conveyed orally, electronically, in writing, through inspection or otherwise. Confidential Information shall include, without limitation, all information relating to a Party's technology, research and development, business affairs, and pricing, and customer-specific load data that constitutes a trade secret. Confidential Information shall also include any other information that is provided and identified by a Party as

“Critical Energy Infrastructure Information,” as that term is defined in 18 C.F.R. Section 388.113(c).

- 14.8 **Regulatory Reporting:** Each Party shall provide information reasonably requested by the other Party to satisfy regulatory reporting requirements, subject to Section 14.7.

ARTICLE 15: NOTICES

- 15.1 Any notice given pursuant to this Agreement shall be in writing as follows:

If to FirstEnergy:

Manager, FERC & Wholesale Connection Support
FirstEnergy Service Company
76 South Main Street
Akron, Ohio 44308

Attorney for FERC & Wholesale Connection Support
Legal Department
FirstEnergy Service Company
76 South Main Street
Akron, Ohio 44308

If to Customer:

American Municipal Power, Inc.
Director of Market Regulatory Affairs
1111 Schrock Road, Suite 100
Columbus, OH 43229
Main Office Phone: (614) 540-1111
Fax: (614) 540-1080

And

American Municipal Power, Inc.
SVP and General Counsel
1111 Schrock Road, Suite 100
Columbus, OH 43229
Main Office Phone: (614) 540-1111
Fax: (614) 540-1080

If to PJM:

Vice President - Government Policy PJM
Interconnection, L.L.C.
1200 G Street, NW, Suite 600
Washington, D.C. 20005

And

General Counsel
PJM Interconnection, L.L.C. 2750 Monroe
Blvd.
Audubon, PA 19403

- 15.2 The above names and addresses of any Party may be changed at any time by notice to the other Party.

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IN WITNESS WHEREOF, the Parties executed by their respective officers lawfully

authorized so to do-

AMERICAN MUNICIPAL POWER, INC.

By: ~~/s/ March S. Gerken, P.E.~~ /s/ Marc S. Gerken, P.E.

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Name: Marc S. Gerken, P.E. ~~Marc S. Gerken, P.E.~~

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Title: President/CEO ~~President and CEO~~

Approved as to Form:

By: /s/ Lisa G. McAlister ~~/s/ Lisa G. McAlister~~

Name: Lisa G. McAlister ~~Lisa G. McAlister~~

Title: ~~- SVP & General Counsel for Regulatory AffairsSr. Vice President and General Counsel
for Regulatory Affairs~~

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FIRSTENERGY SERVICE COMPANY

(On Behalf Of American Transmission Systems, Incorporated, The Cleveland Electric
Illuminating Company, Ohio Edison Company, Pennsylvania Power Company and The Toledo
Edison Company)

By: /s/ Richard A. Ziegler ~~/s/ Richard A. Ziegler~~

Name: Richard A. Ziegler ~~Richard A. Ziegler~~

Title: Director - FERC & RTO Technical Support ~~Director - FERC & RTO Technical
Support~~

SA NO. 2852

The signature below of the authorized representative of PJM Interconnection, L.L.C. is for the limited purpose of acknowledging that a representative of PJM has read this Agreement as of ~~11th~~7th day of ~~July~~December (Month), 2018.

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PJM INTERCONNECTION, L.L.C.

By: ~~/s/ Kenneth S. Seiler~~/s/ Steven R. Herling

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Name: Kenneth S. Seiler~~Steven R. Herling~~ -

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Title: Executive Director, System Planning~~Vice President, Planning~~

SA NO. 2852

APPENDIX 1
Delivery Points, Wholesale Distribution Rates, Losses

Name	Nominal Voltage (kV)	Monthly Distribution Charge (\$/kW)*	Distribution Losses (%)**
Amherst	69	N/A	N/A
Beach City	12	\$0.95	3.9%
Bowling Green***	a) 69	N/A	N/A
	b) 69	N/A	N/A
	c) 12	\$1.54	3.9%
	d) 69	N/A	N/A
Bradner	12	\$0.24	3.9%
Brewster	69	N/A	N/A
Bryan (back-up)	69	N/A	N/A
Columbiana	a) 69	N/A	N/A
	b) 69	N/A	N/A
Custar	12	\$2.73	3.9%
Cuyahoga Falls	a) 138	N/A	N/A
	b) 138	N/A	N/A
Edgerton	69	N/A	N/A
Ellwood City	69	N/A	N/A
Elmore	a) 69	N/A	N/A
	b) 69	N/A	N/A
Galion	a) 69	N/A	N/A
	b) 69	N/A	N/A
Genoa	a) 69	N/A	N/A
	b) 69	N/A	N/A
Grafton	a) 69	N/A	N/A
	b) 69	N/A	N/A

APPENDIX 1
Delivery Points, Wholesale Distribution Rates, Losses

Name	Nominal Voltage (kV)	Monthly Distribution Charge (\$/kW)*	Distribution Losses (%)**
Grove City	a) 69	N/A	N/A
Haskins	12	\$1.54	3.9%
Holiday City	a) 12.47	\$0.65	3.9%
	b) 69	N/A	N/A
Hubbard	23	\$0.73	3.9%
Hudson	a) 69	N/A	N/A
	b) 69	N/A	N/A
	c) 138	N/A	N/A

	d) 138	N/A	N/A
Huron	a) 12	\$0.92	3.9%
	b) 69	N/A	N/A
Lodi	69	N/A	N/A
Lucas	12	\$0.60	3.9%
Milan	a) 69	N/A	N/A
	b) 69	N/A	N/A
Monroeville	a) 69	N/A	N/A
	b) 69	N/A	N/A
Montpelier	a) 69	N/A	N/A
	b) 69	N/A	N/A
Napoleon	a) 69	N/A	N/A
	b) 138	N/A	N/A
New Wilmington	4.16	\$0.49	3.9%
Newton Falls	a) 69	N/A	N/A
	b) 69	N/A	N/A

APPENDIX 1
Delivery Points, Wholesale Distribution Rates, Losses

Name	Nominal Voltage (kV)	Monthly Distribution Charge (\$/KW)*	Distribution Losses (%)**
Niles	138	N/A	N/A
Oak Harbor	12	\$0.30	3.9%
Oberlin	69	N/A	N/A
Painesville	a) 138	N/A	N/A
	b) 138	N/A	N/A
Pemberville	34.5	\$2.62	3.9%
Pioneer	69	N/A	N/A
Prospect	69	N/A	N/A
Seville	a) 69	N/A	N/A
	b) 138	N/A	N/A
South Vienna	12	\$0.28	3.9%
Toledo OminSource	69	N/A	N/A
Wadsworth	a) 138	N/A	N/A
	b) 69	N/A	N/A
Wampum	4.16	\$0.87	3.9%
Wellington	69	N/A	N/A
Woodville	a) 12	\$1.16	3.9%
	b) 34	\$0.74	3.9%
Zelienople	138	N/A	N/A

* kW shall be the non-coincident monthly peak load as metered at each delivery point, and increased for losses as applicable to include losses at the 138 kV voltage level.

** The loss factors provided in this Appendix represent losses on facilities used for wholesale distribution service as referenced in Section 8.2.

*** The three Bowling Green 69 kV delivery points are operated in parallel. Approval of the parallel operation of these delivery points is grandfathered.

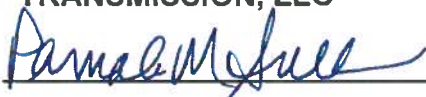
14.1 Survival

The termination of this Agreement shall not discharge either Party from any obligation it owes to the other Party under this Agreement by reason of any transaction, loss, cost, damage, expense or liability that shall occur (or the circumstances, events or basis of which shall occur or arise) prior to such termination. It is the intent of the Parties hereby that any such obligation owed (whether the same shall be known or unknown at the termination of this Agreement) shall survive the termination of this Agreement, and that either Party may enforce its rights against the other Party with respect to such obligations in an action at law or in equity to the fullest extent permitted by law.

This Agreement shall continue in effect after termination to the extent necessary for final billings and payments, and to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and to permit each Party to have access to the real property, including but not limited to leased property and easements of the other Party to disconnect, remove or salvage its own facilities and equipment.

IN WITNESS WHEREOF, this Agreement has been executed by the Parties' respective officers lawfully authorized so to do, as of the Execution Date.

AMP TRANSMISSION, LLC

By: 

Name: Pamala M. Sullivan

Title: President

Approved to as Form:


Lisa G. McAlister, General Counsel

AMERICAN TRANSMISSION SYSTEMS, INCORPORATED

By: _____

Name: _____

Title: _____

SA No. 5196

14.1 Survival

The termination of this Agreement shall not discharge either Party from any obligation it owes to the other Party under this Agreement by reason of any transaction, loss, cost, damage, expense or liability that shall occur (or the circumstances, events or basis of which shall occur or arise) prior to such termination. It is the intent of the Parties hereby that any such obligation owed (whether the same shall be known or unknown at the termination of this Agreement) shall survive the termination of this Agreement, and that either Party may enforce its rights against the other Party with respect to such obligations in an action at law or in equity to the fullest extent permitted by law.

This Agreement shall continue in effect after termination to the extent necessary for final billings and payments, and to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while this Agreement was in effect; and to permit each Party to have access to the real property, including but not limited to leased property and easements of the other Party to disconnect, remove or salvage its own facilities and equipment.

IN WITNESS WHEREOF, this Agreement has been executed by the Parties' respective officers lawfully authorized so to do, as of the Execution Date.

AMP TRANSMISSION, LLC

By: _____

Name: _____

Title: _____

AMERICAN TRANSMISSION SYSTEMS, INCORPORATED

By: Richard A. Ziegler

Name: Richard A. Ziegler

Title: Director - IERC & RTD Technical Support

SA No. 5196

The signature below of the authorized representative of PJM Interconnection, L.L.C. is for the limited purpose of acknowledging that a representative of PJM has read this Agreement as of 7 day of December (Month), 2018.

PJM INTERCONNECTION/L.L.C.

By: 

Name: Kenneth S. Seiler

Title: Executive Director, System Planning

SA No. 5196

IN WITNESS WHEREOF, the Parties executed by their respective officers lawfully
authorized so to do.

AMERICAN MUNICIPAL POWER, INC.

By: 

Name: Marc S. Gerken, P.E.

Title: President/CEO

Approved as to Form:

By: 

Name: Lisa G. McAlister

Title: SVP & General Counsel for Regulatory Affairs

FIRSTENERGY SERVICE COMPANY

(On Behalf Of American Transmission Systems, Incorporated, The Cleveland Electric
Illuminating Company, Ohio Edison Company, Pennsylvania Power Company and The Toledo
Edison Company)

By: _____

Name: _____

Title: _____

SA NO. 2852

IN WITNESS WHEREOF, the Parties executed by their respective officers lawfully
authorized so to do.

AMERICAN MUNICIPAL POWER, INC.

By: _____

Name: _____

Title: _____

Approved as to Form:

By: _____

Name: _____

Title: _____

FIRSTENERGY SERVICE COMPANY

(On Behalf Of American Transmission Systems, Incorporated, The Cleveland Electric
Illuminating Company, Ohio Edison Company, Pennsylvania Power Company and The Toledo
Edison Company)

By: Richard A. Ziegler

Name: Richard A. Ziegler

Title: Director - FERC & RTO Technical Support

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By: 

Name: Kenneth S. Seiler

Title: Executive Director, System Planning

SA NO. 2852