

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_1** In Case No. 2011-00124, the Applicants, including Duke Energy Kentucky (“DEK”), sought approval of revisions to certain affiliate agreements pursuant to the requirements of KRS 278.2207, as described by DEK in its Application and recapped by the Commission in its Order in that case as follows:

Duke Kentucky and many of its affiliates are parties to Commission-approved service agreements that permit transactions to occur between the parties under defined pricing terms and conditions. The Applicants are requesting approval of revisions that reflect the addition of Progress as a party to the following affiliate agreements: (1) Service Company Utility Service Agreement; (2) Operating Companies Service Agreement; (3) Utility Money Pool Agreement; (4) Intercompany Asset Transfer Agreement; and (5) Tax Sharing Agreement.

- a. Provide a list of all existing Kentucky Power Company affiliate agreements, including any agreements that already have been terminated in anticipation of the sale of the Company. For each agreement that already has been terminated or is in the process of termination, describe what actions were or will be taken to terminate the agreement and all filings made or that will be made with the Commission, other state commissions, and/or the FERC to terminate or revise the agreement.
- b. Refer to the response to part (a) of this question. Provide a copy of each existing Kentucky Power Company affiliate agreements, including all agreements that already have been terminated or are in the process of termination in anticipation of the sale of the Company.
- c. Refer to the response to part (a) of this question. Identify each agreement that has been approved by the Commission. Provide a case reference to the most recent approval for each approved affiliate agreement.
- d. Refer to the response to part (a) of this question. Indicate if Kentucky Power Company and/or the Joint Applicants seek approval to terminate any or all of the existing affiliate agreements. If not, explain why not. If so, provide a list of all agreements that have been or will be terminated and provide a reference to the request(s) in the Application and/or witness testimonies.

- e. Indicate if Liberty and/or the Joint Applicants in this proceeding seek approval of any new affiliate agreements. If not, explain why not. If so, list all affected agreements, provide a copy of each of the agreements, and provide a reference to the request(s) in the Application and/or witness testimonies.
- f. If not provided in response to part (e) of this question, provide a copy of each new affiliate agreement between Kentucky Power Company and each other Liberty affiliate.

**RESPONSE**

- a. Please see JA\_R\_KIUC\_2\_01\_Attachment1.pdf for the requested information.
- b. Please see JA\_R\_KIUC\_2\_01\_Attachment2.pdf for the requested information.
- c. Of the Agreements identified in JA\_R\_KIUC\_2\_01\_Attachment1, the Grid Assurance LLC Amended and Restated Subscription Agreement dated April 2, 2019 was approved by the Commission on November 15, 2018 in Case No. 2018-00287.
- d. No, Joint Applicants do not seek approval in this proceeding to terminate any of the existing affiliate agreements. Commission approval is not required to terminate any of the existing affiliate agreements.
- e. No, Liberty is not seeking approval of any affiliate agreements because, to the extent Kentucky Power will enter into affiliate agreements, they will be in compliance with a FERC approved cost allocation method and thus meets the requirements of KRS 278.2207.
- f. Not Applicable.

Witness: Stephan T. Haynes

Witness: Peter Eichler

**LIST OF AFFILIATE AGREEMENTS TO WHICH  
KENTUCKY POWER COMPANY IS CURRENTLY A PARTY**

1. Unit Power Agreement dated August 1, 1984 between Kentucky Power and AEP Generating Company.
2. Amended and Restated Cook Coal Terminal Transfer Agreement dated December 16, 2013 among Kentucky Power, AEP Generating Company, Appalachian Power Company and Indiana Michigan Power Company.
3. Service Agreement dated June 15, 2000 between Kentucky Power and AEPSC.<sup>1</sup>
4. System Integration Agreement dated June 15, 2000, as amended June 1, 2015, among Kentucky Power, Wheeling Power Company, Appalachian Power Company, Indiana Michigan Power Company, Public Service Company of Oklahoma, Southwestern Electric Power Company and AEPSC, as amended (including cancellation of the certificate of concurrence).<sup>2</sup>
5. Transmission Agreement dated April 1, 1984, as amended November 1, 2010, among Kentucky Power, Wheeling Power Company, Ohio Power Company, Appalachian Power Company, Indiana Michigan Power Company, Kingsport Power Company and AEPSC Transmission Agreement dated April 1, 1984, as amended November 1, 2010, among Kentucky Power, Wheeling Power Company, Ohio Power Company, Appalachian Power Company, Indiana Michigan Power Company, Kingsport Power Company and AEPSC.<sup>3</sup>
6. PJM Transmission Formula Rate – Attachment H-14 (Kentucky Power) and H-20 (Kentucky TransCo) of PJM Open Access Transmission Tariff (“OATT”) among Kentucky Power, Wheeling Power Company, Ohio Power Company, Appalachian Power Company, Indiana Michigan Power Company, Kingsport Power Company and AEPSC.<sup>4</sup>
7. AEP Open Access Transmission Tariff (OATT) dated June 20, 2017 among Kentucky Power, Wheeling Power Company, Ohio Power Company, Appalachian Power Company, Indiana Michigan Power Company, Kingsport Power Company, AEP Texas Inc. (formed via merger of AEP Texas Central Company and AEP Texas North Company), Public Service Company of Oklahoma, Southwestern Electric Power Company and AEPSC (including cancellation of the certificate of concurrence).<sup>5</sup>

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<sup>1</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>2</sup> This Agreement will either be cancelled or Kentucky Power will withdraw from the agreement at closing..

<sup>3</sup> A 205 filing will be made at FERC to withdraw Kentucky Power from the agreement.

<sup>4</sup> A 205 filing will be made at FERC to withdraw Kentucky Power from the agreement.

<sup>5</sup> A 205 filing will be made at FERC to withdraw Kentucky Power from the agreement.

8. Bridge Agreement dated January 1, 2014 among Kentucky Power, Ohio Power Company, Appalachian Power Company, Indiana Michigan Power Company and AEPSC (including cancellation of the certificate of concurrence).<sup>6</sup>
9. Affiliated Transactions Agreement dated December 31, 1996 by and among AEPSC, Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power, Kingsport Power Company, Ohio Power Company and Wheeling Power Company.<sup>7</sup>
10. Affiliated Transactions Agreement for Sharing Capitalized Spare Parts dated January 1, 2014 among AEP Generation Resources Inc. and AEPSC, as agent for Kentucky Power, Appalachian Power Company, Indiana Michigan Power Company and AEP Generating Company.<sup>8</sup>
11. Affiliated Transactions Agreement for Sharing Materials and Supplies dated January 1, 2014 among AEP Generation Resources Inc. and AEPSC, as agent for Kentucky Power, Appalachian Power Company, Indiana Michigan Power Company, Ohio Power Company and AEP Generating Company.<sup>9</sup>
12. Affiliated Transactions Agreement for Sharing Materials, Equipment, Supplies, and Capitalized Spare Parts dated May 13, 2021 among (a) Appalachian Power Company, Wheeling Power Company, Indiana Michigan Power Company, Kentucky Power, Kingsport Power Company, Ohio Power Company; (b) Public Service Company of Oklahoma, Southwestern Electric Power Company, and AEP Oklahoma Transmission Company; and (c) American Electric Power Service Corporation, as agent.<sup>10</sup>
13. Affiliated Transactions Agreement for Sharing Transmission Assets dated May 13, 2021 among (a) AEP Ohio Transmission Company, Inc., AEP West Virginia Transmission Company, Inc., AEP Appalachian Transmission Company, Inc., AEP Indiana Michigan Transmission Company, Inc., and Kentucky TransCo; (b) Appalachian Power Company, Wheeling Power Company, Indiana Michigan Power Company, Kentucky Power, Kingsport Power Company, Ohio Power Company; and (c) American Electric Power Service Corporation, as agent.<sup>11</sup>
14. Barge Transportation Agreement dated May 1, 1986 between certain operating companies of the American Electric Power System, including Kentucky Power, and Indiana Michigan Power Company, as amended by Amendment No. 1 dated September 12, 2013, as further amended by Amendment No. 2 dated May 9, 2019.<sup>12</sup>

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<sup>6</sup> This Agreement will either be cancelled or Kentucky Power will withdraw from the agreement at closing.

<sup>7</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>8</sup> A filing will be made notifying FERC of Kentucky Power's withdrawal from the agreement.

<sup>9</sup> A filing will be made notifying FERC of Kentucky Power's withdrawal from the agreement.

<sup>10</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>11</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>12</sup> Kentucky Power will withdraw from the agreement at closing.

15. Central Machine Shop Agreement dated January 1, 1979 among Kentucky Power, Appalachian Power Company, Indiana Michigan Power Company, Kingsport Power Company, AEP Generating Company and AEP Generation Resources Inc.<sup>13</sup>
16. Reactive Supply and Voltage Control from Generation Service Tariff dated June 1, 2015 among Kentucky Power, Wheeling Power Company, Appalachian Power Company and Indiana Michigan Power Company (to remove the Kentucky Power portion of Mitchell Plant and Big Sandy Plant from the AEP Reactive Revenue Requirement in addition to withdrawal of Kentucky Power).<sup>14</sup>
17. AEP Operating Companies Market Based Rate Tariff among Kentucky Power, Wheeling Power Company, Ohio Power Company, Appalachian Power Company, Indiana Michigan Power Company, Kingsport Power Company and AEPSC (including termination of the certificate of concurrence).<sup>15</sup>
18. Existing Mitchell Operating Agreement effective December 31, 2014 among Kentucky Power, Wheeling Power Company and American Electric Power Service Corporation, as agent.<sup>16</sup>
19. Existing Power Coordination Agreement effective June 1, 2015 among Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power, Wheeling Power Company, and American Electric Power Service Corporation, as agent.<sup>17</sup>
20. Amended and Restated Urea Handling Agreement dated December 16, 2013 among Indiana Michigan Power Company, Kentucky Power and Appalachian Power Company.<sup>18</sup>
21. AEP System Rail Car Use Agreement dated April 1, 1982 among Indiana Michigan Power Company, Appalachian Power Company, Ohio Power Company, Southwestern Electric Power Company, Public Service Company of Oklahoma and Kentucky Power, as amended by Amendment No. 1 dated July 1, 2006, as further amended by Amendment No. 2 dated September 12, 2013.<sup>19</sup>
22. American Electric Power Company, Inc. and its Consolidated Affiliates Tax Agreement under Title 17, Chapter II of the Code of Federal Regulations Paragraph (C) of Section 250.45 Regarding Method of Allocating Consolidated Income Taxes.<sup>20</sup>
23. Rail Car Maintenance Agreement dated August 1, 2013 among AEP Generating

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<sup>13</sup> A filing will be made notifying FERC of Kentucky Power's withdrawal from the agreement.

<sup>14</sup> A 205 filing will be made at FERC to withdraw Kentucky Power from the tariff.

<sup>15</sup> A 205 filing will be made at FERC to withdraw Kentucky Power from the tariff.

<sup>16</sup> Will be terminated and replaced with the Mitchell Plant Ownership Agreement and the Mitchell Plant Operations and Maintenance Agreement as of the date of its regulatory approval.

<sup>17</sup> A 205 filing will be made at FERC to withdraw Kentucky Power from the tariff.

<sup>18</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>19</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>20</sup> Kentucky Power will withdraw from the agreement at closing.

Company, Ohio Power Company, Appalachian Power Company, Public Service Company of Oklahoma and Southwestern Electric Power Company.<sup>21</sup>

24. Agreement between Kentucky Power and AEP Energy Services, Inc. dated July 7, 1983.<sup>22</sup>
25. Purchase Contract dated March 31, 1975 between Kentucky Power and Indiana Franklin Realty, Inc.<sup>23</sup>
26. Purchase Contract dated June 7, 1963 between Kentucky Power and The Franklin Real Estate Company.<sup>24</sup>
27. Assignment to Kentucky Power dated December 15, 2013 of Ohio Power Company's interest in Gypsum and Purge Stream Waste Disposal Agreement dated November 16, 2007 between Appalachian Power Company and Ohio Power Company.<sup>25</sup>
28. Agreement between Kentucky Power and AEP Energy Solutions, Inc. dated September 27, 1996.<sup>26</sup>
29. Amended and Restated Utility Money Pool Agreement dated December 9, 2004 by and among AEP and certain other affiliates, including Kentucky Power, as amended by Amendment Nos. 1 through 7.<sup>27</sup>
30. Gypsum Side Letter Agreement dated December 31, 2013 among Kentucky Power, Cardinal Operating Company, Buckeye Power, Inc. and AEP Generation Resources Inc.
31. Grid Assurance LLC Amended and Restated Subscription Agreement dated April 2, 2019 among Grid Assurance LLC, Kentucky Power, and Kentucky TransCo and several other Affiliates, as amended. Kentucky Power participated in the Grid Assurance program in accordance with an Order entered on November 15, 2018 in Case No. 2018-00287 by the KPSC.<sup>28</sup>
32. Interconnection Services Agreement dated December 31, 2013 between Kentucky Power and Appalachian Power Company (for Mitchell).<sup>29</sup>

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<sup>21</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>22</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>23</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>24</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>25</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>26</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>27</sup> A filing will be made notifying FERC of Kentucky Power's withdrawal from the agreement.

<sup>28</sup> Kentucky Power will withdraw from the agreement at closing.

<sup>29</sup> A 205 filing will be made at FERC to withdraw Kentucky Power from the tariff (and substitute Wheeling Power, as plant operator).

33. Third Amended and Restated Purchase Agreement between Kentucky Power and AEP Credit, Inc. dated August 25, 2004, as amended.<sup>30</sup>

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<sup>30</sup> Kentucky Power will withdraw from the agreement at closing.

**AEP Generating Company  
FERC Rate Schedule No. 2  
Unit Power Service  
to  
Kentucky Power Company**

Tariff Submitter: AEP Generating Company  
FERC Tariff Program Name: FPA Electric  
Tariff Title: RS and SA  
Tariff Record Proposed Effective Date: December 31, 2012  
Tariff Record Title: Kentucky Power Company Unit Power Agreement  
Option Code: A



## UNIT POWER AGREEMENT

THIS AGREEMENT dated as of August 1, 1984 by and between KENTUCKY POWER COMPANY ("KEPCO") and AEP GENERATING COMPANY ("AEGCO").

### WITNESSETH:

WHEREAS, AEGCO, a subsidiary company of American Electric Power Company, Inc. ("AEP") under the Public Utility Holding Company Act of 1935 (the "1935 Act"), is part owner of the Rockport Steam Electric Generating Plant presently under construction at a site along the Ohio River near the Town of Rockport, Indiana, which will consist of two 1,300,000-kilowatt fossil-fired steam electric generating units and associated equipment and facilities (the "Rockport Plant"), the first unit ("Unit No. 1") of which is presently expected to be placed in commercial operation on or about December 1, 1984 and the second unit ("Unit No. 2") of which is presently expected to be placed in commercial operation in 1988; and

WHEREAS, AEGCO entered into an Owners' Agreement, dated March 31, 1982, as amended, (the "Owners' Agreement"), with Indiana & Michigan Electric Company ("IMECO") and KEPCO, other subsidiary companies of AEP under the 1935 Act, pursuant to which AEGCO and KEPCO planned to acquire 35% and 15% undivided ownership interests from IMECO respectively, as tenants in common without right of partition, in the Rockport Plant which, upon completion of the construction of Unit No. 1, is thereafter to be operated as a part of the interconnected, integrated electric system comprising the American Electric Power System (the "AEP System"); and

WHEREAS, the Owners' Agreement, as amended, provides that if KEPCO is unable to obtain timely regulatory approval to acquire and directly own its intended 15% ownership interest in the Rockport Plant by the date test power and energy becomes available from Unit No. 1, which is anticipated to occur not earlier than September 1, 1984, or, if such regulatory approval is limited or restricted in any manner as to make performance by KEPCO impossible, impractical or uneconomic, then, AEGCO may and proposes to acquire the 15% undivided ownership interest intended for KEPCO; and

WHEREAS, if AEGCO acquires the 15% undivided ownership interest intended for KEPCO then AEGCO proposes, upon completion of the construction of Unit No. 1 and the completion thereafter of the construction of Unit No. 2, to make available to KEPCO, pursuant to this agreement, 30% of the available power (and the energy associated therewith) to which AEGCO shall from time to time be entitled at the Rockport Plant, which amount is equivalent to the 15% ownership interest intended for KEPCO; and

WHEREAS, IMECO proposes to complete the construction of the Rockport Plant pursuant to the provisions of the Owners' Agreement, as amended, and, upon completion of such construction, to operate the Rockport Plant pursuant to an operating agreement entered into by IMECO, AEGCO and KEPCO in accordance with the Owners' Agreement;

**NOW, THEREFORE, in consideration of the terms and of the agreements hereinafter set forth, the parties hereto agree with each other that if AEGCO acquires the 15% undivided ownership interest intended for KEPCO then:**

**1.1 AEGCO shall, subject to the provisions and upon compliance with the then applicable requirements of Section 2.1 of this agreement, make available, or cause to be made available, to KEPCO 30% of the power (and the energy associated therewith) which shall be available to AEGCO at the Rockport Plant.**

**1.2 KEPCO shall, subject to the provisions and upon compliance with the then applicable requirements of Section 2.2 of this agreement, be entitled to receive 30% of the power (and the energy associated therewith) which shall be available to AEGCO at the Rockport Plant and KEPCO agrees to pay to AEGCO in consideration for the right to receive that 30% of the power (and the energy associated therewith) available to AEGCO at the Rockport Plant those amounts which IMECO would have paid AEGCO under the terms of the IMECO-AEGCO Unit Power Agreement, for KEPCO's entitlement as defined in this agreement. KEPCO shall commence the payment of such amounts to AEGCO on the earlier of the following dates: (i) June 30, 1985 and, (ii) the date of commercial operation of Rockport Unit No. 1.**

**2.1 The performance of the obligations of AEGCO hereunder shall be subject to the receipt and continued effectiveness of all authorizations of governmental regulatory authorities at the time necessary to permit AEGCO to perform its duties and obligations hereunder, including the receipt and continued effectiveness of all authorizations by governmental regulatory authorities at the time necessary to permit the completion by IMECO of the construction of the Rockport Plant, the operation of the Rockport Plant, and for AEGCO to make available to KEPCO 30% of the power (and the energy associated therewith) available to AEGCO at the Rockport Plant. AEGCO shall use its best efforts to secure and maintain all such authorizations by governmental regulatory authorities.**

**2.2 The performance of the obligations of KEPCO hereunder shall be subject to the receipt and continued effectiveness of all authorizations of governmental regulatory authorities necessary at the time to permit KEPCO to perform its duties and obligations hereunder, including the receipt and continued effectiveness of all authorizations by governmental regulatory authorities necessary at the time to permit KEPCO to pay to AEGCO in consideration for the right to receive 30% of the power (and the energy associated therewith) available to AEGCO at the Rockport Plant the charges provided for in Section 1.2 of this agreement. KEPCO shall use its best efforts to secure and maintain all such authorizations by governmental regulatory authorities. KEPCO shall, to the extent permitted by law, be obligated to perform its duties and obligations hereunder, subject to then applicable provisions of this Section 2.2, (a) whether or not AEGCO shall have received all authorizations of governmental regulatory authorities necessary to permit AEGCO to perform its duties and obligations hereunder, (b) whether or not such authorizations, or any such authorization, shall at any time in question be in effect, and (c) so long as AEGCO and KEPCO shall continue to be subsidiary companies of AEP (as said term is defined in Section 2(a)(8) of the 1935 Act) or a successor thereto, whether or not, at any time in question, KEPCO shall have performed its duties and obligations under this agreement. In the event that either AEGCO or KEPCO shall cease to be such a subsidiary company, then and thereafter KEPCO shall not be relieved of its obligation to make payments**

pursuant to Section 1.2 of this agreement by reason of the failure of AEGCO to perform its duties and obligations hereunder occasioned by Act of God, fire, flood, explosion, strike, civil or military authority, insurrection, riot, act of the elements, failure of equipment, or for any other cause beyond the control of AEGCO; provided that, in any such event, AEGCO shall use its best efforts to put itself in a position where it can perform its duties and obligations hereunder as soon as is reasonably practicable.

3. To the extent that it may legally do so, KEPCO and AEGCO each hereby irrevocably waives any defense based on the adequacy of a remedy at law which may be asserted as a bar to the remedy of specific performance in any action brought against it for specific performance of this agreement by KEPCO, by AEGCO, or by a trustee under any mortgage or other debt instrument which KEPCO or AEGCO may, subject to requisite regulatory authority, enter into, or by any receiver or trustee appointed for KEPCO or AEGCO under the bankruptcy or insolvency laws of any jurisdiction to which KEPCO or AEGCO is or may be subject; provided, however, that nothing herein contained shall be deemed to constitute a representation or warranty by KEPCO or AEGCO that the respective obligations of KEPCO or AEGCO under this agreement are, as a matter of law, subject to the equitable remedy of specific performance.

4. KEPCO shall not be entitled to set off against any payment required to be made by KEPCO under this agreement (i) any amounts owed by AEGCO to KEPCO or (ii) the amount of any claim by KEPCO against AEGCO. The foregoing, however, shall not affect in any other way the rights and remedies of KEPCO with respect to any such amounts owed to KEPCO by AEGCO or any such claim by KEPCO against AEGCO.

5. The invalidity and unenforceability of any provision of this agreement shall not affect the remaining provisions hereof.

6. This agreement shall become effective with the date of commercial operation of Rockport Unit No. 1 and shall continue in effect through December 7, 2022.

7. This agreement shall be binding upon the parties hereto and their successors and assigns, but no assignment hereof, or of any right to any funds due or to become due under this agreement, shall in any event relieve either KEPCO or AEGCO of any of their respective obligations hereunder, or, in the case of KEPCO, reduce to any extent its entitlement to receive 30% of the power (and the energy associated therewith) available to AEGCO from time to time at the Rockport Plant.

8. The agreements herein set forth have been made for the benefit of KEPCO and AEGCO and their respective successors and assigns, and no other person shall acquire or have any right under or by virtue of this agreement.

9. KEPCO and AEGCO may, subject to the provisions of this agreement, enter into a further agreement or agreements between KEPCO and AEGCO setting forth detailed terms and provisions relating to the performance by KEPCO and AEGCO of their respective obligations under this agreement. No agreement entered into under this Section 9 shall, however, alter to any substantive degree the obligations of either party to this agreement in any manner inconsistent with any of the foregoing sections of this agreement.

10. KEPCO shall, at any time and from time to time, be entitled to assign all of its right, title and interest in and to all of the power (and the energy associated therewith) to which KEPCO shall be entitled under this agreement, but KEPCO shall not, by such assignment, be relieved of any of its obligations and duties under this agreement except through the payment to AEGCO, by or on behalf of KEPCO, of the amount or amounts which KEPCO shall be obligated to pay pursuant to the terms of this agreement.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be duly executed as of the day and year first above written.

**AEP Generating Company**

By \_\_\_\_\_

**Vice President**

**KENTUCKY POWER COMPANY**

By \_\_\_\_\_

**President**

## **RATE DESIGN**

The total revenue requirement of AEGCO calculated pursuant to the IMECO-AEGCO Unit Power Agreement designated AEGCO FERC Rate Schedule No. 1 is designed to recover for AEGCO its total cost of providing power (and the energy associated therewith) available to AEGCO at the Rockport Plant.

## **DETERMINATION OF POWER BILL**

In accordance with Section 1.3 of the Unit Power Agreement, I&M agrees to pay AEGCO in consideration for the right to receive all power (and the energy associated therewith) available to AEGCO at the Rockport Plant, as a demand charge for the right to receive such power (and as an energy charge for any associated energy taken by I&M), such amounts, less any amounts recovered by AEGCO from other sources, as shall be determined monthly as described below. Such amounts shall be calculated separately for Unit No. 1 (including Common Facilities) and for Unit No. 2. I&M shall then commence the payment of such amounts (power bill) on the earlier of the following dates: (i) June 30, 1985 and (ii) the date on which power including any test power, and any energy associated therewith, shall become available to AEGCO at the Rockport Plant.

The power bill for Unit No. 1 (including Common Facilities) shall be calculated each month and shall reflect recovery only of those costs related to the plant in service. It shall consist of the sum of (a) a return on common equity, (b) a return on other capital, (c) recovery of operating expenses and (d) provision for federal income taxes as described below and as illustrated in the example attached.

(a) Return on Common Equity, which shall be equal to the product of (i) the amount of common equity outstanding at the end of the previous month, but not more than 40% of the capitalization of AEGCO at the end of the previous month; (ii) 1.0133 (12.16% annual rate) as described in Note 1 below; (iii) the Operating Ratio, as defined in Note 2 below; and (iv) the Unit No. 1 Net In-Service Investment Ratio, as defined in Note 3 below, plus the product of (v) the amount of common equity in excess of 40% of the capitalization of AEGCO at the end of the previous month, if any such excess shall be determined; (vi) the weighted cost of debt outstanding at the end of the previous month; (vii) the Operating Ratio, as defined in Note 2 below; and (viii) the Unit No. 1 Net In-Service Investment Ratio, as defined in Note 3 below.

For the purposes of these calculations, the amount of common equity shall be equal to the sum of the Common Stock (Accounts 201-203, 209, 210, 212, 214 and 217), Other Paid-In Capital (Accounts 207, 208, 211 and 213), and Retained Earnings (Accounts 215-216) outstanding at the end of the previous month. Total capitalization shall be equal to the sum of Long-term Debt (Accounts 221-226 including current maturities and unamortized debt premium and discounts), Short-Term Debt (Accounts 231 and 233), Preferred Stock (Accounts 204-206), and Common Equity less any Temporary Cash Investments, Special

Deposits and Working Funds (Accounts 132-134, 136, and 145) outstanding at the end of the previous month.

(b) Return on Other Capital, which shall be equal to the product of (i) the amount equal to the net interest expense associated with Long-Term and Short-Term Debt, net of any Temporary Cash Investments, Special Deposits and Working Funds, plus the preferred stock dividend requirement associated with the Preferred Stock outstanding at the end of the previous month; (ii) the Operating Ratio, as defined in Note 2 below; and (iii) the Unit No. 1 Net In-Service Investment Ratio, as defined in Note 3 below.

For the purposes of these calculations, net interest expense shall be equal to the sum of (i) the amount of Long-Term Debt outstanding at the end of the previous month multiplied by the weighted cost of such Long-Term Debt and (ii) the amount of Short-Term Debt outstanding at the end of the previous month multiplied by the weighted cost of such Short-Term Debt, less (iii) the amount of Temporary Cash Investments, Special Deposits and Working Funds outstanding at the end of the previous month multiplied by the weighted cost of Long Term and Short-Term Debt combined determined pursuant to (i) and (ii) above.

(c) Recovery of Operating Expenses, excluding federal income taxes, which shall consist of provision for depreciation and amortization (Accounts 403-407, 411), including Asset Retirement Obligation (ARO) depreciation and accretion expenses (Accounts 403.1 and 411.10), taxes other than federal income taxes (Accounts 408-411) and operating and maintenance expenses associated with Unit No. 1 (including Common Facilities) offset by other operating revenues as recorded on the Company's books during the month in accordance with the FERC Uniform System of Accounts for Major Electric Utilities (See Note 6). Recovery of expenses for test energy shall be limited to recovery of actual fuel expense as recorded on the Company's books during the month in accordance with the FERC Uniform System of Accounts for Major Electric Utilities. Operating and maintenance expenses shall include, and reflect the recovery of, Steam Power Generation Expenses (Accounts 500-515 including lease rental payments recorded in Account 507), Other Power Supply Expenses (Accounts 555-557), Transmission Expenses (Accounts 560-574), Distribution Expenses (Accounts 580-598), Customer Accounts Expenses (Accounts 901-905), Customer Service and Informational Expenses (Accounts 906-910), Sales Expenses (Accounts 911-917) and Administrative and General Expenses (Accounts 920-933 and 935). Recovery of 501 fuel expenses shall be adjusted to reflect the deferral and/or feedback of unrecovered levelized fuel expenses as may be recorded on the Company's books or as is currently recorded on the books of I&M.

(d) Provision for Unit No. 1's (including Common Facilities) allocated share of net current and deferred federal income tax expense and investment tax credit included in operating income as determined by the Company in accordance with federal income tax law, SEC approved consolidated current tax allocation procedures, and FERC rules and regulations.

For purposes of computing federal income taxes, the interest expense deduction shall be equal to the sum of the net interest expense computed in accordance with paragraph (b)

above plus the imputed interest expense associated with common equity that is in excess of 40% of AEGCO's net capitalization.

The power bill for Unit No. 2 shall be calculated in the same manner as described for Unit No. 1 above except that it shall reflect the Unit No. 2 Net In-Service Investment Ratio and those expenses associated with Unit No. 2.

**Notes:**

**1. Return on Equity**

The return on common equity allowance shall be based upon a rate of return of 12.16% as set forth in sub-paragraph (a) above.

In October of 1988, and every October thereafter for the effective duration of AEGCO's formula rate, any purchaser under AEGCO's two unit power agreements, any state regulatory commission having jurisdiction over the retail rates of purchasers under these agreements, or any other entity representing customers' interest, may file a complaint with the Commission with respect to the specified rate of return on common equity. If the Commission, in response to such a complaint, or on its own motion, institutes an investigation into the reasonableness of the specified return on common equity, such investigation shall be pursued under the special procedures set forth as follows:

- A. The only issue to be addressed under these special procedures shall be the continued collection of the return on equity as incorporated in the formula rate; and
- B. Refund will be due, should the return on equity, specified in the formula be found not just and reasonable, dating from the first day of January immediately following the date the complaint is filed or an investigation is instituted by the Commission on its own motion, calculated on the resulting difference in rates due to the application of the return found to be just and reasonable and the return stated in the formula. The first such effective date for the calculation of refunds shall be January 1, 1989.

Any other complaint which challenges the justness and reasonableness of any other component of the filed formula rate or any other complaint filed at any other time which challenges the justness and reasonableness of the specified rate of return on common equity and which is set for investigation by the Commission shall be pursued under Section 206 of the Federal Power Act.

**2. Operating Ratio**

The Operating Ratio shall be computed each month commencing with the month in which Unit No. 1 at the Plant is placed in commercial operation. It shall be based on the balances, as recorded on the Company's books in accordance with the FERC Uniform

System of Accounts for Major Electric Utilities, outstanding at the end of the previous month and shall be derived by dividing (a) the amount of Electric Plant In Service (Account 101 including amounts associated with leasehold improvements but excluding amounts associated with capitalized leased assets and excluding amounts associated with Asset Retirement Obligations); less Accumulated Provision for Depreciation and Amortization (Accounts 108 and 111 but excluding amounts associated with Asset Retirement Obligations); plus Plant Held for Future Use (Account 105 pursuant to the provisions of Note 4.D. below); Materials and Supplies (Accounts 151-156 and 163 as adjusted pursuant to the provisions of Note 4.C. below); Other Deferred Debits (Account 186 pursuant to the provisions of Note 4.D. below); Prepayments (Account 165); Deferred Ash pond cost (Account 182.3); other working capital (Accounts 128, 131, 135, 143, 146, 171 and 174 less Accounts 232-234, 236, 237, 238, 241 and 242); and Unamortized Debt Expense (Account 181), less Other Deferred Credits (Account 253 including the unamortized gain on the sale of Rockport Unit No. 2); less Asset Retirement Obligation (Account 230); less Accumulated Deferred Federal Income Taxes (Accounts 190 and 281-283) and Accumulated Deferred Investment Tax Credit (Account 255) related to the plant in service by (b) the sum of (i) the amount determined pursuant to (a) plus (ii) the amount of Construction Work In Progress (Account 707) plus Materials and Supplies (Accounts 151-156 and 163), less Accumulated Deferred Federal Income Taxes related to the construction work in progress plus (iii) Plant Held for Future Use (Account 105), Other Deferred Debits (Account 186) and the amount of fuel inventory over the allowed level (Account 151.10) not otherwise included in (a) above.

### **3. Net In-Service Investment Ratio**

The Unit No. 1 Net In-Service Investment Ratio shall be equal to 1.0 during the period commencing with the month in which Unit No. 1 at the Plant is placed in commercial operation and shall remain at 1.0 up to, but not including, the month in which Unit No. 2 at the Plant is placed in commercial operation. Thereafter, the Net In-Service Investment Ratio shall be computed each month, based on the balances, as recorded on the Company's books in accordance with the FERC Uniform System of Accounts for Major Electric Utilities, outstanding at the end of the previous month and shall be derived as follows:

- A. Unit No. 1 Net In-Service Investment Ratio shall be derived by dividing (a) the Net In-Service Investment associated with Unit No. 1 and Common Facilities by (b) the sum of the Net In-Service Investment associated with Unit No. 1 and Common Facilities plus the Net In-Service Investment associated with Unit No. 2.
- B. Unit No. 2 Net In-Service Investment Ratio shall be derived by dividing (a) the Net In-Service Investment associated with Unit No. 2 by (b) the sum of the Net In-Service Investment associated with the Unit No. 1 and Common Facilities plus the Net In-Service Investment associated with Unit No. 2.



#### **4. Net In-Service Investment**

The Net In-Service Investment shall be computed each month commencing with the month in which Unit No. 2 at the Plant is placed in commercial operation. It shall be based on the balances, as recorded on the Company's books in accordance with the FERC Uniform System of Accounts for Major Electric Utilities, outstanding at the end of the previous month and shall consist of the following:

- A. Unit No. 1 Net In-Service Investment shall consist of the sum of Electric Plant in Service (Account 101 including amounts associated with leasehold improvements but excluding amounts associated with capitalized leased assets and excluding amounts associated with Asset Retirement Obligations), Plant Held for Future Use (Account 105 pursuant to the provisions of Note 4.D. below), Materials and Supplies (Accounts 151-156 and 163 pursuant to the provisions of Note 4.C. below), and Prepayments (Account 165), Deferred Ash pond cost (Account 182.3), Other Deferred Debits (Account 186 pursuant to the provisions of Note 4.D. below), other working capital (Accounts 128, 131, 135, 143, 146, 171 and 174 less Accounts 232-234, 236, 237, 238, 241 and 242), and Unamortized Debt Expense (Account 181), less Other Deferred Credits (Account 253), less Asset Retirement Obligation (Account 230), less Accumulated Provision for Depreciation and Amortization (Accounts 108 and 111), Accumulated Deferred Federal Income Taxes (Accounts 190 and 281-283) and Accumulated Deferred Investment Tax Credit (Account 255) related to such Unit No. 1 and Common Facilities in-service investment.
- B. Unit No. 2 Net In-Service Investment shall consist of the sum of Electric Plant in Service (Account 101 including amounts associated with leasehold improvements but excluding amounts associated with capitalized leased assets and excluding amounts associated with Asset Retirement Obligations), Plant Held for Future Use (Account 105 pursuant to the provisions of Note 4.D. below), Materials and Supplies (Accounts 151-156 and 163 pursuant to the provisions of Note 4.C. below), Prepayments (Account 165), Deferred Ash pond cost (Account 182.3), Other Deferred Debits (Account 186 pursuant to the provisions of Note 4.D. below), other working capital (Accounts 128, 131, 135, 143, 146, 171 and 174 less Accounts 232-234, 236, 237, 238, 241 and 242), and Unamortized Debt Expense (Account 181), less Other Deferred Credits (Account 253 including the unamortized gain on the sale of Rockport Unit No.2), less Asset Retirement Obligation (Account 230), less Accumulated Provision for Depreciation and Amortization (Accounts 108 and 111), Accumulated Deferred Federal Income Taxes (Accounts 190 and 281-283) and Accumulated Deferred Investment Tax Credit (Account 255) related to the Unit No. 2 in-service investment.

- C. AEGCO shall be permitted to earn a return on its fuel inventory, recorded in Account 151.10, not in excess of a 68-day coal supply as defined herein. To the extent AEGCO's actual fuel inventory exceeds the allowable 68-day level, the return on such excess shall be recorded in a memo account. When AEGCO's actual fuel inventory is less than the allowable 68-day level, AEGCO shall be permitted to recover the return previously unrecovered, but in no event shall the power bill reflect a return on fuel inventory in excess of 68-day supply.

A 68-day coal inventory level shall be determined for each unit annually, and shall be based upon the actual experienced daily burn during the preceding calendar year. The actual experienced daily burn shall be defined to exclude the effect of forced and scheduled outages as well as curtailments as follows:

For each unit:

$$\text{Actual experienced daily burn} = 24 \text{ hours} \frac{(\text{Tons burned per year})}{\text{Operating hours}}$$

Where:

Operating hours = Hours in year minus forced and scheduled outage hours  
 minus curtailment equivalent outage hours

and

Curtailment equivalent outage hours = The product for each curtailment of:

$$\frac{\text{kW of curtailed capacity}}{\text{kW of rated capacity}} \times \text{Curtailment hours}$$

The value of the allowable 68-day coal supply used to determine each month's power bill shall be equal to the number of tons determined above multiplied by the cost per ton of coal in inventory at the end of the previous month.

For 1990, a 68-day coal supply for AEGCO's share of Rockport Unit No. 2 shall be based on 12 months ending December 1990 data. For 1990 billing purposes, however, a 68-day coal supply for AEGCO's share of Rockport Unit No.2 shall initially be assumed to be equal to the 68-day coal supply for AEGCO's share of Rockport Unit No. 1, adjusted to reflect the Btu content and the unit cost of the coal for Rockport Unit No. 2.

AEGCO shall maintain a cumulative record of the unrecovered return as well as the subsequent recovery of that return as follows:

- i) To the extent that AEGCO's actual fuel inventory exceeds the allowable 68-day coal supply, AEGCO shall record each month an amount equal to the sum of the unrecovered return on fuel inventory and the return on previously unrecovered amounts. The unrecovered return on fuel inventory shall be calculated each month by deriving the difference between the power bill that would result if full recovery were provided and the power bill that results with the 68-day limitation imposed. The return on previously unrecovered amounts shall be calculated by multiplying the cumulative return unrecovered at the end of the previous month by the capital costs used to derive the power bill, adjusted for federal income taxes.
  - ii) To the extent that AEGCO's fuel inventory is less than the allowable 68-day coal supply, AEGCO shall record each month an amount equal to the return on previously unrecovered amounts less the recovered return in excess of actual inventory levels. The return on previously unrecovered amounts shall be calculated as described in (i) above. The recovered return in excess of actual inventory levels shall be calculated by deriving the difference between the power bill that would result if actual inventory balances were used and the power bill that results with an imputed inventory level. In no event will the cumulative value of the unrecovered return be allowed to fall below zero.
- D. AEGCO shall be permitted to include as part of its Net In-Service Investment Numerator amounts subsequently recorded in Accounts 105 and 186 subject to the conditions set forth in the Offer of Settlement in FERC Docket No. ER84-579-000, et al.
- E. Other Special Funds (Account 128), Other Current and Accrued Assets (Accounts 131, 135, 143, 146, 171 and 174), Other Deferred Debits (Account 181), Other Current and Accrued Liabilities (Accounts 232-234, 236, 237, 238, 241 and 242), and Other Deferred Credits (Account 253) shall be directly assigned to unit No. 1 (including Common Facilities) or Unit No. 2 whenever possible. Whenever such direct assignment is not practical, such balances shall be allocated between the units in proportion to the net dependable capability of each of the units.
- F. To recognize that the lease rental expense will be collected monthly but that the lease payment will be paid semiannually, the lease rental payable balance will be reflected as a rate base reduction in calculating the operating ratio and the Unit 2 net-in-service investment ratio as a means to credit the Unit 2 customers for the time value of money.

## **5. Investment Balances**

For the purpose of calculating the Operating Ratio and Net In-Service Investment Ratio, amounts shall reflect the balances, as recorded on the Company's book in accordance with the FERC Uniform System of Accounts for Major Electric Utilities, outstanding at the end of the previous month, except that when plant greater than or equal to 1% of the prior month ending plant value is transferred into service during the current month, such prior month balances shall be adjusted to reflect such transfers to service. Such adjustment shall be pro-rated for the number of days during the month that such plant addition was in-service.

## **6. Allocation of Expenses**

Operating expenses shall be directly assigned to Unit No. 1 (including Common Facilities) or Unit No. 2 whenever possible. Whenever such direct assignment is not practical, such expenses shall be allocated between the units in accordance with the basis that gave rise to such expense.

AEGCO's operating and maintenance expenses shall include, and AEGCO shall be allowed recovery of, administrative and general expenses, related payroll taxes and other cost, allocated to AEGCO by I&M as operator of the Rockport Plant or incurred directly by AEGCO.

I&M shall allocate to AEGCO, a portion of I&M's administrative and general expenses charged to Accounts 920, 921, 922, 923, 924, 925, 926, 931 and 935; related payroll taxes charge to Account 408; and a portion of the expenses of the Rockport Information Center charged to Accounts 506, 511 and 514 that generally relate to Rockport Plant operations. Such charges shall be allocated to AEGCO on the basis of the ratio of AEGCO's share of the Rockport Plant operation and maintenance wages and salaries, divided by the sum of total Rockport Plant operations and maintenance wages and salaries, plus all other I&M operation and maintenance wages and salaries, less I&M's administrative and general wages and salaries. For the period beginning December 10, 1984 and ending December 31, 1985 this ratio will be developed based on actual 1985 amounts. In subsequent calendar years, this ratio will be adjusted annually based on the prior calendar year's amounts.

AEGCO's operation and maintenance expenses shall also include, and AEGCO shall be allowed recovery of, other administrative and general expenses directly incurred by AEGCO and included in the appropriate administrative and general expense accounts.

## **BILLINGS AND PAYMENTS**

All bills for amounts owing hereunder shall be due and payable on the fifteenth day of the month next following the month or other period to which such bills are applicable, or on the tenth day following receipt of the bill, whichever date is later. Interest on unpaid amounts shall accrue daily at the prime interest rate per annum in effect on the due date at the

Citibank, plus 2% per annum, from the due date until the date upon which payment is made. Unless otherwise agreed upon, the calendar month shall be the standard period for the purpose of settlements under this Agreement. If bills cannot be accurately determined at any time, they shall be rendered on an estimated basis and subsequently adjusted to conform to the terms of the unit power agreements.

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
 SUMMARY OF MONTHLY POWER BILL**

Pg 1 of 18

<u>Line No.</u>		<u>Amount</u>
1	Return on Common Equity	
2	Return on Other Capital	
3	Total Return	-----
4	+ Fuel	
5	+ Purchased Power	
6	- Other Operating Revenues	
7	+ Other Operation and Maintenance Exp	
8	- Depreciation, Amortization and Accretion Expenses	
9	+ Taxes Other Than Federal Income Tax	
10	+ Federal and State Income Tax	
11	= Total Unit 1 Monthly Power Bill	----- =====
12	<u>Determination of Federal Income Tax :</u>	
13	Total Return ( Line 3 )	
14	+ Unit 1 Schedule M Adjustments	
15	+ Unit 1 Deferred Federal Income Taxes	
16	- Unit 1 Interest Expense Deduction *	
17	= Subtotal	-----
18	x Gross-Up ( FIT Rate / 1-FIT Rate )	
19	= Unit 1 Current Federal Income Tax	
20	+ Unit 1 Def Fed & State Income Taxes	
21	= Total Unit 1 Fed&State Income Taxes	----- =====
22	<u>Proof of Federal Income Tax :</u>	
23	Total Unit 1 Monthly Power Bill	
24	- Operation and Maintenance Expenses	
25	- Depreciation, Amortization and Accretion Expenses	
26	- Taxes Other Than Federal Income Tax	
27	- Unit 1 Interest Expense Deduction *	
28	+ Other Operating Revenues	
29	= Pre-Tax Book Income	-----
30	+ Unit 1 Schedule M Adjustments	
31	= Unit 1 Taxable Income	-----
32	x Current Federal Income Tax Rate	
33	= Unit 1 Current Federal Income Tax	
34	+ Unit 1 Def Fed & State Income Taxes	
35	= Total Unit 1 Fed&State Income Taxes	----- =====

\* From Page 4 of 18 : Line 21 + (Line 28 x Line 31 x Line 32)

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
OPERATING RATIO**

<u>Line No.</u>		<u>Amount</u>
1	<u>Operating Ratio:</u>	
2	<u>Net In-Service Investment:</u>	
3	Electric Plant In-Service	
4	- Accumulated Depreciation	
5	+ Materials & Supplies	
6	+ Prepayments	
7	+ Plant Held For Future Use (A/C 105) *	
8	+ Other Deferred Debits (A/C 186) *	
9	+ Other Working Capital ***	
10	+ Unamortized Debt Expense (A/C 181)	
11	+ Deferred ASH pond cost (A/C 182.3)	
12	- Asset Retirement Obligation (A/C 230)	
13	- Other Deferred Credits (A/C 253)	
14	- Accumulated Deferred FIT	
15	- Accumulated Deferred ITC	
16	Total Net In-Service Investment	-----
17	<u>Non-In-Service Investment - CWIP :</u>	-----
18	Construction Work In Progress	
19	+ Materials & Supplies	
20	- Accumulated Deferred FIT	
21	Total Non-In-Service Investment - CWIP	-----
22	<u>Non-In-Service Investment - Other :</u>	-----
23	Plant Held for Future Use (A/C 105) **	
24	+ Other Deferred Debits (A/C 186) **	
25	+ Fuel Inventory Over Allowed Level ****	
26	Total Non-In-Service Investment - Other	-----
27	Total Investment (Lines 16+21+26)	=====
28	Operating Ratio (Line 16/Line 27)	
29	Non-In-Service Investment-CWIP Ratio (Line 21/Line 27)	
30	Non-In-Service Investment-Other Ratio (Line 26/Line 27)	
31	Total Investment	-----

\* As Permitted By FERC  
 \*\* Excluding Amounts on Lines 7 and 8  
 \*\*\* Accounts 128, 131, 135, 143, 146, 171 and 174, Less Accounts 232-234, 236, 237, 238, 241 and 242  
 \*\*\*\* Includes Rockport 1 and 2

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
NET IN-SERVICE INVESTMENT RATIO**

<u>Line No.</u>		<u>Amount</u>
1	<u>Net In-Service Investment Ratio:</u>	
2	Unit 1 Net In-Service Investment:	
3	Electric Plant In-Service	
4	- Accumulated Depreciation	
5	+ Materials & Supplies	
6	+ Prepayments	
7	+ Plant Held For Future Use (A/C 105) *	
8	+ Other Deferred Debits (A/C 186) *	
9	+ Other Working Capital **	
10	+ Unamortized Debt Expense (A/C 181)	
11	+ Deferred ASH pond cost (A/C 182.3)	
12	- Asset Retirement Obligation (A/C 230)	
13	- Other Deferred Credits (A/C 253)	
14	- Accumulated Deferred FIT	
15	- Accumulated Deferred ITC	
16	Total Unit 1 Net In-Service Investment	-----
17	Unit 2 Net In-Service Investment:	
18	Electric Plant In-Service	
19	- Accumulated Depreciation	
20	+ Materials & Supplies	
21	+ Prepayments	
22	+ Plant Held For Future Use (A/C 105) *	
23	+ Other Deferred Debits (A/C 186) *	
24	+ Other Working Capital **	
25	+ Unamortized Debt Expense (A/C 181)	
26	+ Deferred ASH pond cost (A/C 182.3)	
27	- Asset Retirement Obligation (A/C 230)	
28	- Other Deferred Credits (A/C 253)	
29	- Accumulated Deferred FIT	
30	- Accumulated Deferred ITC	
31	Total Unit 2 Net In-Service Investment	-----
32	Total Net In-Service Investment	----- =====
33	<u>Net In-Service Investment Ratio:</u>	
34	Unit 1 ( Line 16 / Line 32 )	
35	Unit 2 ( Line 31 / Line 32 )	-----
	* As Permitted By FERC	=====
	** Accounts 128, 131, 135, 143, 146, 171 and 174, Less Accounts 232-234, 236, 237, 238, 241 and 242	



**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
 CALCULATION OF RETURNS ON  
COMMON EQUITY & OTHER CAPITAL**

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<u>Line No.</u>		<u>Amount</u>
1	<u>Net Capitalization:</u>	
2	Long-Term Debt	
3	+ Short-Term Debt	
4	+ Preferred Stock	
5	+ Common Equity	
6	- Temporary Cash Investments	
		-----
7	Net Capitalization	=====
8	40% of Net Capitalization	
9	<u>Return on Common Equity:</u>	
10	Lesser of Line 5 or Line 8	
11	x Equity Return (Monthly Rate)	
12	= Equity Return	
13	x Operating Ratio	
14	x Net In-Service Investment Ratio	
15	= Subtotal	
16	Excess of Line 5 Over Line 8	
17	x Weighted Cost of Debt (Monthly Rate)	
18	= Return on Equity over 40% of Capitalization	
19	x Operating Ratio	
20	x Net In-Service Investment Ratio	
21	= Subtotal	
		-----
22	Unit 1 Return on Equity (Line 15 + Line 21)	=====
23	<u>Return on Other Capital:</u>	
24	Long-Term Debt Interest Expense (A/C 427-429)	
25	+ Short-Term Debt Interest Expense (A/C 430)	
26	+ Other Interest Expense (A/C 431)	
27	- Temporary Cash Investment Income *	
		-----
28	= Net Interest Expense	
29	+ Preferred Stock Dividends (a/c 437)	
		-----
30	= Net Cost of Other Capital	
31	x Operating Ratio	
32	x Net In-Service Investment Ratio	
33	= Unit 1 Return on Other Capital	
		=====

\* Line 6 x Line 19 from Pg 5 of 18

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETERMINATION OF WEIGHTED COST OF DEBT**

<u>Line No.</u>		<u>Amount</u>
1	<u>Debt Balances (Prior Month Ending) :</u>	
2	Long-Term Debt	
3	+ Short-Term Debt	
4	+ Other Debt	
		-----
5	Total Debt Balances (Prior Month Ending)	=====
6	<u>Weighting of Debt Balances :</u>	
7	Long-Term Debt	
8	+ Short-Term Debt	
9	+ Other Debt	
		-----
10	Total Debt Balances	=====
11	<u>Debt Cost Rates :</u>	
12	Long-Term Debt	
13	Short-Term Debt	
14	Other Debt	
15	<u>Weighted Cost of Debt :</u>	
16	Long-Term Debt	
17	+ Short-Term Debt	
18	+ Other Debt	
		-----
19	Total Weighted Cost of Debt	=====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETERMINATION OF UNIT 1 MATERIALS AND SUPPLIES**

<u>Line No.</u>		<u>Amount</u>
1	<u>Unit 1 Materials and Supplies:</u>	
2	Fuel Stock - Coal (per Line 23)	
3	Fuel Stock Expenses - Undistributed (152)	
4	Fuel Stock - Oil (151)	
5	Plant Materials & Operating Supplies	
6	Merchandise	
7	Undistributed Stores Expense	-----
8	Total Materials & Supplies	=====
9	<u>Support of Coal Inventory Value:</u>	
10	Actual Coal Inventory (A/C 151.10)	
11	+ Equivalent Inventory re: Deferred Return	-----
12	= Imputed Coal Inventory	-----
13	Coal Inventory W/68 Day Supply Cap	
14	Tons Consumed	
15	/ Hours Available *	
16	= Tons Consumed per Hour	
17	x 24 Hours per Day	
18	= Tons Consumed Per Day	
19	x 68 days	
20	= 68 day Supply (Tons)	
21	x Coal Cost per Ton (per A/C 151.10 at End of Prior Month)	-----
22	= 68 day Coal Inventory	-----
23	Lesser of Imputed or Capped Coal Inventory	-----
24	Imputed Inventory Minus Line 23	=====
25	<u>Accumulated Deferred Inventory Return - Unit 1 (Memo Item):</u>	
26	Beginning Balance	
27	+ Current Month Return on Beginning Balance	
28	+ Current Month Deferral	
29	- Current Month Recovery	-----
30	= Ending Balance **	=====

\* Excludes Forced Outages, Scheduled Outages, and Curtailments

\*\* May Not Be Less Than Zero

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETAIL OF OTHER OPERATING REVENUES**

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<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
1	450	Forfeited Discounts	
2	451	Miscellaneous Service Revenues	
3	453	Sales of Water and Water Power	
4	454	Rent From Electric Property - Associated Companies	
5	454.20	Rent From Electric Property - Non-Associated Companies	
6	455	Interdepartmental Rents	
7	456	Other Electric Revenues	
8	411.8	Proceeds/Gains From Sale of Emission Allowances	
9		Total Other Operating Revenues	=====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETAIL OF OPERATION & MAINTENANCE EXPENSES**

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
1	500, 502-508	Steam Power Generation - Operation	
2	501	Fuel - Operation	
3	510-515	Steam Power Generating - Maintenance	
4		Total Steam Power Generation Expenses	-----
5	555-557	Other Power Supply Expenses	
6	560-567.1	Transmission Expenses - Operation	
7	568-574	Transmission Expenses - Maintenance	
8		Total Transmission Expenses	-----
9	580-589	Distribution Expenses - Operation	
10	590-598	Distribution Expenses - Maintenance	
11		Total Distribution Expenses	-----
12	901-905	Customer Accounts Expenses - Operation	
13	906-910	Customer Service and Informational Expenses - Operation	
14	911-917	Sales Expenses - Operation	
15	920-933	Administrative and General Expenses - Operation	
16	935	Administrative and General Expenses - Maintenance	
17		Total Administrative & General Exp.	-----
18		Total Operation & Maintenance Expenses	=====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
 DETAIL OF DEPRECIATION,  
 AMORTIZATION AND ACCRETION EXPENSES**

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
1	403	Depreciation Expense	
1a	403.1	ARO Depreciation Expense	
2	404	Amortization of Limited-Term Electric Plant	
3	405	Amortization of Other Electric Plant	
4	406	Amortization of Electric Plant Acquisition Adjustments	
5	407	Amortization of Property Losses, Unrecovered Plant and Regulatory Study Costs	_____
6		Total Depreciation Exp. & Amortization	
7	411.10	ARO Accretion Expense	_____
8		Total Depreciation, Amortization & Accretion Expenses	=====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETAIL OF TAXES OTHER THAN FEDERAL INCOME TAXES**

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
BS1			
1	408.1	Taxes Other Than Federal Income Taxes, Utility Operating Income	
2	409.1	State Income Taxes	
3		Total Taxes Other than FIT	----- =====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
 DETAIL OF UNIT 1 SCHEDULE `M' ADJUSTMENTS  
 AND DEFERRED FEDERAL AND STATE INCOME TAX**

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
1		<u>Unit 1 Schedule `M' Adjustments</u>	
2	N/A	Excess ACRS Over Normalization Base Depreciation	
3	N/A	Excess Normalization Base Over Book Depreciation	
4	N/A	Other Unit 1 Schedule `M' Adjustments	
5		Total Unit 1 Schedule `M' Adjustments *	----- =====
6		<u>Unit 1 Deferred Federal Income Tax</u>	
7	410.1	Excess ACRS Over Norm. Base Depr. (Line 2 x FIT Rate * -1)	
8	410.1, 411.1	Other Unit 1 Schedule `M' Adjustments -	
9	411.1	Feedback of Accumulated DFIT re: ABFUDC - Unit 1 Negative Amount Denotes Reduction.	
10	411.1	Feedback of Accumulated DFIT re: Overheads Capitalized - Unit 1	
11	411.1	Feedback of Accumulated DFIT re: Other Schedule `M' Adj.-Utility	----- =====
12		Total Unit 1 Deferred Federal and State Income Tax *	

\* Positive Amount Denotes Increase In Taxable Income,  
 Negative Amount Denotes Reduction.



**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETAIL OF NET IN-SERVICE INVESTMENT UNIT 1**

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
1		<u>ELECTRIC PLANT IN SERVICE</u>	
2	101	Electric Plant In Service	
3	102	Electric Plant Purchased	
4	103	Experimental Elec. Plant Unclassified	
5	103.1	Electric Plant In Process of Reclassification	
6	104	Electric Plant Leased to Others	
7	106	Completed Construction Not Classified	
8	114	Electric Plant Acquisition Adjustments	
9	116	Other Electric Plant Adjustments	
10	118	Other Utility Plant	
11		Total Electric Plant In Service	-----
12	105	Plant Held For Future Use	-----
13		<u>ACCUMULATED DEPRECIATION</u>	
14	108	Accumulated Provision for Depreciation of Electric Utility Plant	
15	110	Accumulated Provision for Depreciation and Amort. of Elec. Utility Plant	
16	111	Accumulated Provision for Amortization of Electric Utility Plant	
17	115	Accumulated Provision for Amortization of Electric Plant Acquisition Adjustments	
18	119	Accumulated Provision for Depreciation and Amortization of Other Utility Plant	
19		Total Accumulated Depreciation	-----
20		<u>MATERIAL AND SUPPLIES</u>	
21	151	Fuel Stock	
22	152	Fuel Stock Expenses - Undistributed	
23	153	Residuals	
24	154	Plant Materials and Operating Supplies	
25	155	Merchandise	
26	156	Other Materials and Supplies	
27	163	Stores Expense Undistributed	
28		Total Materials and Supplies (In-Service Portion)	-----
29	165	Prepayments	-----
30	186	Other Deferred Debits	-----

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
 OTHER WORKING CAPITAL, UNAMORTIZED DEBT EXPENSE,  
 AND OTHER DEFERRED CREDITS**

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<u>Line No.</u>	<u>Account No.</u>	<u>Description *</u>	<u>Amount</u>
1	128	Other Special Funds	
2	131	Cash	
3	135	Other Intra Company Adjustments	
4	143	Accounts Receivable-Miscellaneous	
5	146	Accounts Receivable-Associated Company	
6	171	Interest and Dividends Receivable	
7	174	Miscellaneous Current and Accrued Assets	
8	232	Accounts Payable-General	
9	234	Accounts Payable-Associated Company	
10	236	Taxes Accrued	
11	237	Interest Accrued	
12	238	Dividends Declared	
13	241	Tax Collections Payable	
14	242	Misc Current and Accrued Liabilities	-----
15		Total Other Working Capital	=====
16	181	Unamortized Debt Expense	-----
17	253	Other Deferred Credits	-----
		* debit <credit>	

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETAIL OF NET IN-SERVICE INVESTMENT UNIT 1**

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
31		<u>ACCUMULATED DEFERRED INCOME TAXES</u>	
32	190	-Accumulated Deferred Income Taxes	
33	281	+Accumulated Deferred Income Taxes - Accelerated Amortization Property	
34	282	+Accumulated Deferred Income Taxes - Other Property	
35	283	+Accumulated Deferred Income Taxes - Other	
36		Total Accumulated Deferred Income Taxes (In-Service Portion)	----- -----
37	255	+Accumulated Deferred Investment Tax Credits	
38	186.50	-Accumulated Deferred Investment Tax Credit	
39		Total Accumulated Deferred Investment Tax Credits	-----
40		Total Net In-Service Investment - Unit 1	----- =====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
 DETAIL OF NON-IN-SERVICE INVESTMENT - CWIP AND OTHER**

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
		<u>Non-In-Service Investment - CWIP</u>	
1	107	Construction Work In Process	
2		MATERIAL AND SUPPLIES	
3	151	Fuel Stock	
4	152	Fuel Stock Expenses - Undistributed	
5	153	Residuals	
6	154	Plant Materials and Operating Supplies	
7	155	Merchandise	
8	156	Other Material and Supplies	
9	163	Stores Expense Undistributed	
10		Total Material and Supplies (CWIP Portion)	-----
11		<u>ACCUMULATED DEFERRED INCOME TAXES</u>	-----
12	190	-Accumulated Deferred Income Taxes	
13	281	+Accumulated Deferred Income Taxes - Accelerated Amortization Property	
14	282	+Accumulated Deferred Income Taxes - Other Property	
15	283	+Accumulated Deferred Income Taxes - Other	
16		Total Accumulated Deferred Income Taxes (CWIP Portion)	-----
17		TOTAL NON-IN-SERVICE INVESTMENT - CWIP	----- =====
		<u>Non-In-Service Investment - Other</u>	
18	105	Plant Held for Future Use	
19	186	Other Deferred Debits	
20	151.10	Fuel Inventory Over Allowed Level*	
21		Total Non-In-Service Investment - Other	----- =====
		* INCLUDES ROCKPORT 1 AND 2 UNIT 1 UNIT 2	
		TOTAL	----- =====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETAIL OF NET CAPITALIZATION**

Pg 16 of 18

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
1		<u>COMMON CAPITAL STOCK</u>	
2	201	Common Stock Issued	
3	202	Common Stock Subscribed	
4	203	Common Stock Liability for Conversion	
5	209	Reduction In Par or Stated Value of Capital Stock	
6	210	Gain on Resale or Cancellation of Reacquired Capital Stock	
7	212	Installments Received on Capital Stock	
8	214	Capital Stock Expense	
9	217	Reacquired Capital Stock	
10		Total Common Capital Stock	-----
11		<u>OTHER PAID-IN CAPITAL</u>	
12	207	Premium on Capital Stock	
13	208	Donations Received from Stockholders	
14	211	Miscellaneous Paid-In Capital	
15	213	Discount on Capital Stock	
16		Total Other Paid-In Capital	-----
17		<u>RETAINED EARNINGS</u>	
18	215	Appropriated Retained Earnings	
19	215.1	Appropriated Retained Earnings- Amortization Reserve, Federal	
20	216	Unappropriated Retained Earnings	
21		Total Retained Earnings	-----
22		Total Common Equity	-----
23		<u>PREFERRED CAPITAL STOCK</u>	
24	204	Preferred Stock Issued	
25	205	Preferred Stock Subscribed	
26	206	Preferred Stock Liability for Conversion	
27		Total Preferred Capital Stock	-----

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
 DETAIL OF NET CAPITALIZATION (Cont'd)**

Pg 17 of 18

<u>Line No.</u>	<u>Account No.</u>	<u>Description</u>	<u>Amount</u>
28		<u>LONG-TERM DEBT</u>	
29	221	Bonds	
30	222	Reacquired Bonds	
31	223	Advances from Associated Companies	
32	224	Other Long-Term Debt	
33	225	Unamortized Premium on Long-Term Debt-Credit	
34	226	Unamortized Discount on Long-Term Debt-Debit	
35		Total Long-Term Debt	-----
		<u>SHORT-TERM DEBT</u>	
36a	231.02	Notes Payable (Short-Term Debt)	
36b	231.03	Unamortized Discount	
37	233.00	Notes Payable, Assoc Co (Money Pool)	
38		Total Short-Term Debt	-----
39		<u>TEMPORARY CASH INVESTMENTS</u>	
40	132	Interest Special Deposits	
41	133	Dividend Special Deposits	
42	134	Other Special Deposits	
43	136, 145	Temporary Cash Investments	
44		Total Temporary Cash Investments	-----
45		NET CAPITALIZATION	=====

**AEP GENERATING COMPANY  
 SAMPLE POWER BILL  
DETERMINATION OF RATE OF RETURN (Net & Pre-Tax)**

<u>Line No.</u>	<u>Amount</u>
1	<u>Capitalization Balances (Prior Month Ending) :</u>
2	Long-Term Debt
3	+ Short-Term Debt
4	+ Preferred Stock
5	+ Common Equity
6	- Capitalization Offsets
	-----
7	Total Capitalization Balances
	=====
8	<u>Weighting of Capitalization Balances :</u>
9	Long-Term Debt
10	+ Short-Term Debt
11	+ Preferred Stock
12	+ Common Equity
13	- Capitalization Offsets
	-----
14	Total Capitalization
	=====
15	<u>Capitalization Cost Rates :</u>
16	Long-Term Debt
17	Short-Term Debt
18	Preferred Stock
19	Common Equity
20	Capitalization Offsets
21	<u>Rate of Return (Net of Tax) :</u>
22	Long-Term Debt
23	+ Short-Term Debt
24	+ Preferred Stock
25	+ Common Equity
26	- Capitalization Offsets
	-----
27	Total Rate of Return (Net of Tax)
	=====
28	Weighted Net Cost of Debt
29	+ Pre-Tax Common Equity (Line 25 / .65)
	-----
30	= Rate of Return (Pre-Tax)
	=====

**EXECUTION VERSION**

**AMENDED AND RESTATED COOK COAL TERMINAL TRANSFER AGREEMENT**

This Cook Coal Terminal Transfer Agreement (this "Transfer Agreement") is entered into by and among **AEP Generating Company** ("AEPGCo" or "Operator"), **Ohio Power Company** ("OPCo"), **Indiana Michigan Power Company** ("I&M"), **Kentucky Power Company** ("KPCo") and **Appalachian Power Company** ("APCo") effective on the 16<sup>th</sup> day of December, 2013 (the "Effective Date"). OPCo, I&M, KPCo and APCo may also be referred to herein individually as a "User" or collectively as the "Users."

**RECITALS**

**WHEREAS**, Operator is the lessee and operator of the Cook Coal Terminal, a coal transfer facility located on the Ohio River near Metropolis, Illinois that is capable of unloading coal in bulk from unit trains and transferring it to, and loading it upon, barges for transportation by water (the "Terminal").

**WHEREAS**, each User owns and operates one or more coal-fired steam electric generating plants adjacent to the Ohio River or its tributaries which consume large quantities of coal and to which coal may be transported by water.

**WHEREAS**, each User has requested Operator to provide coal transfer services for it at the Terminal as hereinafter described and Operator is prepared to perform such services as and when requested by User on the terms and conditions set forth herein.

**WHEREAS**, OPCo was previously the lessee and operator of the Terminal and provided coal transfer services to I&M pursuant to that certain Coal Transfer Agreement dated June 17, 1983 which OPCo and I&M now desire to terminate.

**NOW, THEREFORE**, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, AEPGCo, OPCo, I&M, KPCo and APCo agree as follows:

**1. Coal Transfer Services.** At the Terminal Operator shall (i) unload coal from unit trains arranged and scheduled by a User that consist of rotary-coupled hopper cars compatible



with the Terminal's existing railcar unloading equipment, (ii) transfer User's unloaded coal from a Terminal rail unloading point to a Terminal barge loading point, and (iii) reload User's unloaded coal on barges arranged and scheduled by User (such services are collectively referred to as the "Coal Transfer Services").

**2. Scheduling Notice; Coordination.** Operator shall perform the Coal Transfer Services for a User at such times and for such quantities of coal as such User specifies by notice to Operator reasonably provided in advance of the arrival of each unit train transporting User's coal to the Terminal. The notice shall specify the date, time, and quantity (tonnage) of coal shipments to and from the Terminal. Operator and Users shall collectively coordinate the arrival of unit trains at the Terminal as well as the arrival and departure of barge tows to and from the Terminal so as to avoid conflicts with the coal shipments of Users as well as other non-affiliated users of the Terminal. Each User is solely responsible for the transportation of coal to and from the Terminal and Operator shall have no responsibility or liability for any demurrage or other charges imposed by Users' carriers. Each User shall schedule shipments of coal to and from the Terminal so that Operator may promptly transfer and reload User's unloaded coal to barges then available for loading at the Terminal barge loading point.

**3. Coal Storage Services.** If a User's coal unloaded at the Terminal will not be immediately reloaded onto barges, such coal shall be (i) deposited by Operator either into a common storage pile comprised of coal owned by the Users and their affiliates but only to the extent that such coal is of a similar grade and quality (the "Common Storage Pile") or into a separate storage pile for such User (a "User Storage Pile"), (ii) stored in the Common Storage Pile or the User Storage Pile and (iii) withdrawn from the Storage Pile or the User Storage Pile at such time that it is to be loaded onto barges arranged by User ((i), (ii) and (iii) are collectively the "Coal Storage Services"). Operator shall establish appropriate accounting and inventory procedures to determine (i) monthly how much coal was deposited in the Common Storage Pile and the User Storage Pile for each User, (ii) monthly how much coal was withdrawn from the Common Storage Pile and the User Storage Pile for each User and (iii) how much coal each User owns in the Common Storage Pile and its User Storage Pile at the end of each month.

**4. Inventory; Fees and Adjustments.**

a. Coal Transfer Services Standard Fee. Operator shall invoice each User at the end of each month for Coal Transfer Services provided during such month for each ton (2,000 pounds avoirdupois weight) of User's coal loaded onto barges. User shall pay the invoiced Coal Transfer Services within ten (10) days following receipt of each invoice. The standard fee for Coal Transfer Services shall consist of Operator's estimate of its fully loaded cost to perform the Coal Transfer Services on a per ton basis which shall include an after-tax carrying charge on Operator's invested capital in the Terminal equal to I&M's return on equity then in effect as determined by the Indiana Utility Regulatory Commission (currently 10.2%) from time to time (the "I&M ROE") including an adder for income taxes at the prevailing statutory rate applied to Operators investment in the Terminal, less revenue for similar coal transfer services performed by Operator for parties that are not affiliates of the Users (the "Coal Transfer Services Standard Fee"). The Coal Transfer Services Standard Fee shall be revised from time to time by the Operator to reflect its estimated fully loaded cost to perform the Coal Transfer Services and to reflect the current I&M ROE. Users shall provide Operator annually with a reasonably detailed forecast of its requirements for Coal Transfer Services to assist in the computation of the Coal Transfer Services Standard Fee.

b. Coal Transfer Services Standard Fee Annual True-Up. Within forty-five (45) days after the end of each calendar year, Operator shall perform a true-up of the Coal Transfer Services Standard Fee paid by the Users during such calendar year (each a "True-Up Year") by taking (i) Operator's total actual costs allocable to the Terminal for all Coal Transfer Services and similar coal transfer services provided to non-affiliates during the True-Up Year including, but not limited to, lease and rental costs, federal income taxes at the applicable statutory rate and costs associated with Tons In Transit (hereafter defined)) and subtracting therefrom (ii) the total revenues accrued by Operator during the True-Up Year from non-affiliated users and (iii) dividing the difference between (i) and (ii) by the total number of tons loaded by Operator during the True-Up Year for the Users (the "Adjusted Fee"). "Tons In Transit" at the Terminal are unloaded tons that have not been reloaded on barges. If the aggregate Coal Transfer Services Standard Fees payable or paid by a User during a True-Up Year exceeds the Adjusted Fee multiplied by the total number of transferred tons loaded for User during the True-Up Year, the amount of the difference shall be credited to the account of User

and applied against subsequent invoices payable by User, unless User requests that such amount (to the extent already paid by it) be refunded to it in cash. If the Adjusted Fee multiplied by the total transferred tons loaded for User during a True-Up year exceeds the total amount of the Coal Transfer Services Standard Fees payable or paid by User during the True-Up Year, the amount of the difference shall be paid by User to Operator within ten (10) days of when User receives an invoice for such adjustment.

c. Coal Storage Services Fee. Operator shall invoice Users at the end of each month for Coal Storage Services provided to them during such month. Within ten (10) days following receipt of each invoice, User shall pay Operator for the invoiced Coal Storage Services. The fee for Coal Storage Services shall consist of Operator's monthly forecast of its fully loaded cost to perform the Coal Storage Services on a per ton basis (2,000 pounds avoirdupois weight) which shall be comprised of the following costs and expenses: (i) the actual cost (including direct labor charges) incurred by Operator to operate, maintain and repair all facilities, equipment and machinery used in connection with performing the Coal Storage Services and (ii) the actual costs of all supplies, materials and fuel used by Operator in performing the Coal Storage (collectively the "Coal Storage Services Fee").

d. Coal Storage Services Fee Annual True-Up. Within forty-five (45) days after the end of each calendar year, Operator shall true-up the Storage Services Fee paid by each User during such calendar year against the actual costs incurred by Operator to perform the Coal Storage Services for each User during such calendar year. If the aggregate Coal Storage Services Fee payable or paid by a User during the year exceeds the aggregate amount of the actual costs incurred by Operator to perform the Coal Storage Services for such User during such calendar year, the amount of the difference shall be credited to the account of User and applied against subsequent Coal Storage Services invoices payable by User, unless User requests that such amount (to the extent already paid by it) be refunded to it in cash. If the aggregate Coal Storage Services Fee payable or paid by a User during the year is less than the aggregate amount of the actual costs incurred by Operator to perform the Coal Storage Services for such User during such calendar year, the amount of the difference shall be paid by User to Operator within ten (10) days of when User receives an invoice for such adjustment.

**5. Accounting and Auditing.** The Operator shall maintain such books and records as are necessary to support the charges for Coal Transfer Services and Coal Storage Services and

in sufficient detail to satisfy applicable regulatory requirements (the “Records”). Operator shall provide Users access to the Records at all reasonable times. Operator shall maintain the Records in accordance with good record management practices.

**6. Termination.**

a. This Transfer Agreement shall automatically terminate as to OPCo effective at the end of the day on December 31, 2013 without any further action by OPCo. Notwithstanding the preceding sentence, OPCo may revoke such automatic termination by written notice to the Operator at any time prior to December 31, 2013.

b. Any User may withdraw from this Transfer Agreement upon thirty (30) days written notice to the Operator.

c. Operator may terminate this Transfer Agreement upon sixty (60) days written notice to the Users.

d. The performance of the obligations of each party shall be subject to the continued effectiveness of all governmental regulatory authorizations necessary to permit such party to perform its duties and obligations hereunder. In the event that such authorization is revoked or withdrawn, then this Transfer Agreement shall cease to be effective as to such party; provided, however, that such ineffectiveness shall not affect the obligations of any other party hereto unless the affected party is the Operator in which case this Transfer Agreement shall terminate.

e. If this Agreement becomes effective as to APCo pursuant to paragraph number 8, it shall terminate as to APCo on the fifth anniversary of its receipt any regulatory approvals required to participate in this Agreement.

**7. Termination of Coal Transfer Agreement.** The June 17, 1983 Coal Transfer Agreement between OPCo and I&M shall be deemed terminated contemporaneously upon the effectiveness of this Transfer Agreement.


**8. APCo Delayed Effectiveness.** This Transfer Agreement shall not become effective as to APCo until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Transfer Agreement. This provision shall not affect the obligations of any other party hereto.


**9. I&M Delayed Effectiveness.** Pursuant to IC 8-1-2-49(g), this Transfer Agreement shall not become effective as to I&M until it has been filed with the Indiana Utility Regulatory Commission.

**10. Counterparts.** This Transfer Agreement may be executed in any number of counterparts, and each such executed counterpart (including electronically transmitted counterparts) shall be, and shall be deemed to be, an original, but all of which shall constitute, and shall be deemed to constitute, in the aggregate, but one and the same instrument.

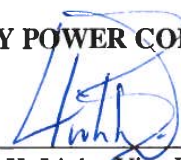
**11. Entire Agreement.** This Transfer Agreement constitutes the entire agreement among the parties hereto with respect to the subject matter hereof, supersedes and is in full substitution for any and all prior agreements and understandings among them relating to such subject matter, and no party hereto shall be liable or bound to any other party hereto in any manner with respect to such subject matter by any warranties, representations, indemnities, covenants, or agreements except as specifically set forth herein and therein.


Executed as of the Effective Date.

**AEP GENERATING COMPANY**  
By:   
Timothy K. Light, Vice President

**APPALACHIAN POWER COMPANY**  
By:   
Timothy K. Light, Vice President

**OHIO POWER COMPANY**  
By:   
Timothy K. Light, Vice President

**KENTUCKY POWER COMPANY**  
By:   
Timothy K. Light, Vice President

**INDIANA MICHIGAN POWER COMPANY**  
By:   
Timothy K. Light, Vice President

## SERVICE AGREEMENT

THIS SERVICE AGREEMENT, made as of the 15<sup>th</sup> day of June, 2000, between American Electric Power Service Corporation, a New York corporation ("Service Corporation") and Kentucky Power Company, a Kentucky corporation ("Client").

### WITNESSETH:

WHEREAS, both Service Corporation and Client are associate companies in the American Electric Power System (the "AEP System"), which is comprised of American Electric Power Company, Inc. ("American") and its subsidiary companies; and

WHEREAS, Service Corporation is a wholly-owned subsidiary of American and is approved by the Securities and Exchange Commission (the "Commission") as a subsidiary service company pursuant to the provisions of Section 13 of the Public Utility Holding Company Act of 1935, as amended (the "1935 Act"); and

WHEREAS, Service Corporation maintains an organization of employees who are experienced in the operations of public utilities and related businesses, together with appropriate facilities and equipment, through which it is prepared to provide various management, administrative, financial, technical and other services, as hereinafter provided, to Client and to other member companies in the AEP System (Client, together with such other member companies, are hereinafter referred to collectively as "Clients"); and

WHEREAS, such services will be rendered at cost, determined in accordance with the applicable rules and regulations of the Commission under the 1935 Act, and the allocation of such costs among Clients will be made in accordance with the authority granted by the Commission in HCAR No. 27186 in File No. 70-9381 (June 14, 2000);

NOW, THEREFORE, in consideration of the premises and of the mutual agreements herein contained, Service Corporation and Client hereby agree as follows:

1. Agreement to Provide Services. Service Corporation agrees to provide to Client from time to time, upon the terms and conditions hereinafter set forth, such of the following services as may properly be rendered by Service Corporation to Client (within the meaning and intent of the 1935 Act and any other applicable statutes and the orders, rules and regulations of the Commission and any other governmental bodies having jurisdiction) at such times, for such periods and in such manner as Client may from time to time require and which Service Corporation is equipped to perform:

- (a) Consultation, analysis, advice and performance of services in connection with matters relating to operations, management, financing and financial planning, engineering, system planning, law, corporate communications, corporate development, energy production, energy delivery and pricing, environmental requirements, marketing, governmental and general business problems or questions;

- (b) Consultation, analysis, advice and performance of services in connection with human relations and employee benefit plans;
- (c) Tax services relating to the preparation and filing of returns for federal, state and local taxes, including consolidated tax returns;
- (d) Assistance in connection with any audits of such tax returns by Internal Revenue Service and other taxing bodies or authorities;
- (e) Consultation, analysis, advice and performance of services in connection with accounting matters and financial reporting; and
- (f) Electronic data processing services, including establishing and operating a data processing center, processing of customer billings, revenues and statistics, payrolls, property accounting, general accounting, cash forecasts, load flow studies, and various other business and engineering applications as may from time to time be in the best interest of Client.

Service Corporation will render all services performed under this Service Agreement at cost, determined in accordance with Rule 91 of the Rules and Regulations of the Commission.

Service Corporation will also provide Client with such other services, in addition to those specified above, as may be requested by Client and which Service Corporation concludes it is equipped to perform. In providing such services, Service Corporation may arrange, where it deems appropriate, for the services of experts, consultants, advisers and other persons with necessary qualifications as are required for or pertinent to the rendition of such services.

2. Agreement to Take Services. Client agrees to take from Service Corporation such of the services described in Section 1 hereof and such additional general and special services, whether or not now contemplated, as are requested from time to time by Client and which Service Corporation is equipped to perform.

3. Compensation and Allocation. As compensation for the services to be rendered hereunder, Client agrees to pay to Service Corporation all costs which reasonably can be identified and related to particular transactions or services performed by Service Corporation on Client's behalf. Where more than one Client is involved in or has received benefits from a transaction or service performed, costs will be allocated and billed among such Clients on the basis most directly related to the transaction or service performed. Allocated costs will be billed using appropriate attribution bases as authorized by the Commission.

As soon as practicable after the close of each month, Service Corporation shall render a monthly statement to Client which shall reflect the billing information necessary to identify the costs and allocations made and charged for that month. Client agrees to remit to Service Corporation all charges billed to Client within 30 days after receipt of the monthly statement.

4. Termination of Prior Agreement. This Service Agreement supersedes the agreement dated January 1, 1980, between the parties hereto, providing for the rendition of services by Service Corporation to Client.

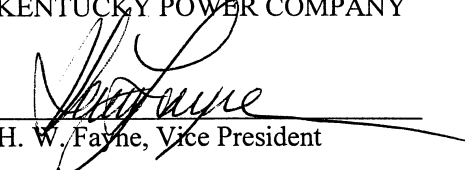
5. Term and Termination. This Service Agreement shall become effective upon the fifteenth day of June, 2000, and shall continue in full force and effect until terminated by either party hereto upon not less than ninety (90) days' prior written notice to the other party. This Service Agreement shall also be subject to termination or modification at any time if and to the extent its performance may or shall conflict with (i) any rule, regulation or order of the Commission pursuant to the provisions of the 1935 Act, whether issued before or after the effective date of this Service Agreement, or (ii) any rule, regulation or order of any other governmental body having jurisdiction.

IN WITNESS WHEREOF, the parties hereto have caused this Service Agreement to be executed as of the date first above written.

AMERICAN ELECTRIC POWER SERVICE CORPORATION

  
\_\_\_\_\_  
H. W. Fayne, Vice President

KENTUCKY POWER COMPANY

  
\_\_\_\_\_  
H. W. Fayne, Vice President



Document Accession #: 20150402-5305

Filed Date: 04/02/2015

**SYSTEM INTEGRATION AGREEMENT**

**AMONG**

**APPALACHIAN POWER COMPANY  
KENTUCKY POWER COMPANY  
INDIANA MICHIGAN POWER COMPANY  
WHEELING POWER COMPANY**

**AND**

**PUBLIC SERVICE COMPANY OF OKLAHOMA  
SOUTHWESTERN ELECTRIC POWER COMPANY**

**AND**

**AMERICAN ELECTRIC POWER SERVICE CORPORATION  
AS AGENT**

Tariff Submitter: **Appalachian Power Company**  
FERC Program Name: **FERC FPA Electric Tariff**  
Tariff Title: **APCo Rate Schedules and Service Agreement Tariffs**  
Tariff Proposed Effective Date: **06/01/2015**  
Tariff Record Title: **System Integration Agreement**  
Option Code: **A**  
Record Content Description: **Rate Schedule 305**

## **SYSTEM INTEGRATION AGREEMENT**

THIS **SYSTEM INTEGRATION AGREEMENT** ("Agreement") is made and entered into as of the \_\_\_\_ day of \_\_\_\_\_, 2015 by and among Appalachian Power Company ("APC"), Kentucky Power Company ("KPC"), Indiana Michigan Power Company ("IM"), Wheeling Power Company ("WPC"), Public Service Company of Oklahoma ("PSO"), and Southwestern Electric Power Company ("SWEPCO"), and their agent American Electric Power Service Corporation ("AEPSC"). The foregoing companies are referred to herein collectively as the Parties and individually as a Party.

### **RECITALS:**

WHEREAS, APC, KPC, IM, and WPC (collectively, the "AEP East Operating Companies") own and operate interconnected electric generation, transmission and distribution facilities with which they are engaged in the business of generating, transmitting and selling electric power and energy to the general public and to other entities; and

WHEREAS, the AEP East Operating Companies coordinate their bulk power activities pursuant to the Restated and Amended Power Coordination Agreement dated June 1, 2015 (the "AEP East PCA"); and

WHEREAS, PSO and SWEPCO (collectively, the "AEP West Operating Companies") own and operate interconnected electric generation, transmission and distribution facilities with which they are engaged in the business of generating, transmitting and selling electric power and energy to the general public and to other entities; and

WHEREAS, the AEP West Operating Companies coordinate their bulk power activities pursuant to a Restated and Amended Operating Agreement dated March 1, 2014 (the "AEP West Operating Agreement"); and

WHEREAS, the Parties desire to enter into an agreement under which the AEP East Operating Companies and the AEP West Operating Companies can mutually benefit from centralized off-system trading and marketing activities;

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

## **ARTICLE I DEFINITIONS**

**1.1 AEP East Zone** means the electric generation, transmission and distribution facilities of the AEP East Operating Companies.

**1.2 AEP East PCA** means the Restated and Amended Power Coordination Agreement among AEPSC and the AEP East Operating Companies dated June 1, 2015.

**1.3 AEP East Operating Companies** for purposes of this Agreement means the following operating companies of American Electric Power Company, Inc. which, together with AEPSC, are parties to the AEP East PCA: APC, KPC, IM, and WPC, collectively.

**1.4 AEP West Operating Companies** for purposes of this Agreement means the following operating companies of American Electric Power Company, Inc. which, together with AEPSC, are parties to the AEP West Operating Agreement: PSO and SWEPCO collectively.

**1.5 AEPSC** means American Electric Power Service Corporation.

**1.6 AEP West Zone** means the electric generation, transmission and distribution facilities of the AEP West Operating Companies.

**1.7 Agent** means the Parties' designated representative for the purposes specified in Section 5.1 and elsewhere in this Agreement.

**1.8 Agreement** means this System Integration Agreement, including all Service Schedules and attachments hereto.

**1.9 APC** means Appalachian Power Company.

**1.10 AEP West Operating Agreement** means the Amended and Restated Operating Agreement among AEPSC and the AEP West Operating Companies dated March 1, 2014.

**1.11 FERC** or **Commission** means the Federal Energy Regulatory Commission or a successor agency having jurisdiction over this Agreement.

**1.12 IM** means Indiana Michigan Power Company.

**1.13 KPC** means Kentucky Power Company.

**1.14 Off-System Purchases**, for purposes of this Agreement, means purchases by the Parties of energy and/or capacity from third parties in support of Trading and Marketing Activities.

**1.15 Off-System Sales**, for purposes of this Agreement, means sales by the Parties of energy and/or capacity to third parties that are non-native load customers of the Parties to this Agreement in support of Trading and Marketing Activities.

**1.16 Operating Committee** means the administrative body established pursuant to Article VI for the purposes therein specified.

**1.17 Operating Companies** means the AEP East Operating Companies and the AEP West Operating Companies.

**1.18 Out-of-Pocket Cost** means all expenses incurred that would not otherwise have been incurred if the corresponding service had not been arranged and shall include the supply and cost basis of Off-System Sales.

**1.19 Party** or **Parties** means one or more of the following individually or collectively, as the context warrants: APC, KPC, IM, WPC, AEPSC, PSO, and SWEPCO.

**1.20 PSO** means Public Service Company of Oklahoma.

**1.21 PJM** means PJM Interconnection, L.L.C.

**1.22 SPP** means Southwest Power Pool, Inc.

**1.23 SWEPCO** means Southwestern Electric Power Company.

**1.24 Service Schedule** means the Service Schedule attached to this Agreement.

**1.25 Trading and Marketing Activities** means Off-System Sales and Off-System Purchases.

**1.26 Trading and Marketing Realization** means the difference between (i) revenues collected from Trading and Marketing Activities and (ii) the Out-of-Pocket Cost of such Trading and Marketing Activities including any transaction costs related to such activities.

**1.27 WPC** means Wheeling Power Company.

## **ARTICLE II TERM OF AGREEMENT**

### **2.1 Term**

This Agreement shall take effect on June 1, 2015, and shall continue in force and effect thereafter until terminated by mutual agreement or upon twelve (12) months' written notice from any of the Parties. The Agreement shall remain in effect for the remaining Parties so long as there are at least one AEP East Operating Company and at least one AEP West Operating Company that are still parties to the Agreement.

Notwithstanding this termination notice, each Party shall remain responsible for its allocation of cost and revenues of all Trading and Marketing Activities that were or are entered into under this Agreement, including those activities, if any, that are entered into that extend beyond the date after which the notifying Party is no longer a Party to this Agreement.

### **2.2 Review**

This Agreement will be reviewed on an as needed basis by the Operating Committee to determine whether revisions are necessary or appropriate.

### **ARTICLE III OBJECTIVES**

#### **3.1 Purpose**

The purpose of this Agreement is to provide the contractual basis for the equitable sharing of Trading and Marketing Activities between the AEP East Operating Companies and the AEP West Operating Companies, and for any other purposes set forth herein.

### **ARTICLE IV RELATIONSHIP TO OTHER AGREEMENTS AND SERVICES**

#### **4.1 Governing Provisions**

This Agreement is intended to apply in addition to and not in lieu of the AEP East PCA and the AEP West Operating Agreement. The provisions of this Agreement shall, to the extent practicable, be construed and applied in a manner that is consistent with the AEP PCA and the AEP West Operating Agreement. In the event of any inconsistency, however, the provisions of this Agreement shall control.

### **ARTICLE V AGENT**

#### **5.1 Agent's Functions**

The Parties hereby designate AEPSC as their Agent for the purposes of:

- (a) conducting Trading and Marketing Activities on behalf of all the Operating Companies that are parties to this Agreement;
- (b) developing all bills and billing information among the Parties pursuant to this Agreement; and
- (c) such other activities and duties as may be assigned from time to time by the Operating Committee.

## **5.2 Delegation and Acceptance of Authority**

The Parties hereby delegate to the Agent and the Agent hereby accepts responsibility and authority for the duties listed in Section 5.1 and elsewhere in this Agreement. Except as herein expressly established otherwise, the Agent shall perform each of those duties in consultation with the Operating Committee.

# **ARTICLE VI COMPOSITION AND DUTIES OF THE OPERATING COMMITTEE**

## **6.1 Operating Committee**

The Operating Committee is the administrative body created to administer this Agreement and shall consist of three (3) members. One member shall be a representative of the AEP East Operating Companies, one member shall be a representative of the AEP West Operating Companies and the third member shall be a representative of AEPSC who will also act as the chairperson of the committee.

## **6.2 Meetings**

The Operating Committee shall hold meetings at such times, means and places as the members shall determine. Minutes of each Operating Committee meeting shall be prepared and maintained.

## **6.3 Decisions**

All decisions of the Operating Committee shall be by a majority vote of the members present or their designated proxy.

## **6.4 Duties**

The Operating Committee shall have the following duties, unless such duties are otherwise assigned by a vote of the Operating Committee to the Agent, in which case the Agent shall perform such duties. The Operating Committee will be responsible for:

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- (a) administering this Agreement and recommending any amendments hereto;
- (b) reviewing and making recommendations concerning the sharing of costs and benefits under this Agreement;
- (c) reviewing and, if necessary, amending the duties and responsibilities of the Agent; and
- (d) ensuring coordination for other matters not specifically provided for herein.

## **ARTICLE VII TRADING AND MARKETING**

### **7.1 Trading and Marketing Activities**

All Trading and Marketing Activities initiated or concluded after the effective date of this Agreement shall be conducted centrally under the direction of the Agent.

## **ARTICLE VIII ASSIGNMENT OF COSTS AND BENEFITS**

### **8.1 Service Schedule(s)**

The costs and revenues associated with activities described in Article VII shall be distributed in the manner provided from time to time in the Service Schedule(s) attached to and incorporated by reference into this Agreement. It is understood and agreed that the Service Schedule(s) is/are intended to establish an equitable sharing of costs and/or benefits among the Operating Companies, and that circumstances may, from time to time, require a reassessment of relative benefits and burdens or of the methods used in the Service Schedule(s) to apportion the benefits and burdens. Upon a recommendation of the Operating Committee and agreement among the Parties, the



Service Schedule(s) may be amended as of any date agreed to by the Parties, subject to receipt of necessary regulatory authorization.

The Service Schedule(s) incorporated into this Agreement is/are as follows:

**Service Schedule A:** Allocation of Trading and Marketing Realizations.

## **ARTICLE IX BILLING PROCEDURES**

### **9.1 Records**

The Agent shall maintain such records as may be necessary to determine the assignment of costs and benefits pursuant to this Agreement. Such records shall be made available to the Parties upon request.

### **9.2 Monthly Statements**

As promptly as practicable after the end of each calendar month, the Agent shall prepare a statement setting forth the monthly summary of costs and revenues allocated or assigned to the Operating Companies in sufficient detail as may be needed for settlements under the provisions of this Agreement. As required, the Agent may provide such statements on an estimated basis and then adjust those statements for actual results.

### **9.3 Billings and Payments**

The Agent shall handle all billing between the Parties and other entities for Trading and Marketing Activities pursuant to this Agreement. Payment among the Operating Companies shall be by making remittance of the net amount billed or by making appropriate accounting entries on the books of the Parties.

### **9.4 Billing Errors**

If a Party discovers a billing error pertaining to a prior billing for reasons including, but not limited to, missing or erroneous data or calculations, including those

caused by meter, computer or human error, a correction adjustment will be calculated. The correction adjustment shall not be applied to any period earlier than the beginning of the second full billing month preceding the discovery of the error, nor will interest accrue on such adjustment. The correction adjustment will be applied as soon as practicable to the next subsequent regular monthly bill. Any overpaid amount attributed to such billing errors shall be returned by the owing Party(ies) upon determination of the correct amount with no interest.

#### **9.5 Billing Omissions**

Within one (1) year from the date on which a bill should have been delivered, if a Party's records reveal that the bill was not delivered, then the Agent shall deliver to the appropriate Party a bill within one (1) month of this determination. Any amounts collected or reimbursed due to such omissions shall exclude interest. The right to receive payment is waived with respect to any amounts not billed within this period.

#### **9.6 Billing Disputes**

The Parties shall have the right to dispute the accuracy of any bill or payment for a period not to exceed two months from the date on which the bill was initially delivered. Following this one-month period, the right to dispute a bill is permanently waived for any and all reasons including but not limited to, (a) errors, (b) omissions, (c) Agent's actions, and (d) the Operating Committee's decisions, Agreement interpretations and direction in the administration of the Agreement. Any amounts collected or reimbursed due to such disputes shall exclude interest.

#### **9.7 Taxes**

Should any federal, state, or local tax, surcharge or similar assessment, in addition to those that may now exist, be levied upon the electric power, energy or service to be provided in connection with this Agreement, or upon the provider of service as measured by the power, energy or service, or the revenue therefrom, such additional amount shall be included in the net billing as described in Section 9.3.

## **ARTICLE X FORCE MAJEURE**

### **10.1 Events Excusing Performance**

No Party shall be liable to another Party for or on account of any loss, damage, injury, or expense resulting from or arising out of a delay or failure to perform, either in whole or in part, any of the agreements, covenants or obligations made by or imposed upon the Parties by this Agreement, by reason of or through strike, work stoppage of labor, failure of contractors or suppliers of materials (including fuel), failure of equipment, environmental restrictions, riot, fire, flood, ice, invasion, civil war, commotion, insurrection, military or usurped power, order of any court granted in any bona fide adverse legal proceedings or action, or of any civil or military authority either *de facto* or *de jure*, explosion, Act of God or the public enemies, or any other cause reasonably beyond its control and not attributable to its neglect. A Party experiencing such a delay or failure to perform shall use due diligence to remove the cause or causes thereof; however, no Party shall be required to add to, modify or upgrade any facilities, or to settle a strike or labor dispute except when, according to its own best judgment, such action is advisable.

## **ARTICLE XI GENERAL**

### **11.1 No Third Party Beneficiaries**

This Agreement does not create rights of any character whatsoever in favor of any person, corporation, association, entity or power supplier, other than the Parties, and the obligations herein assumed by the Parties are solely for the use and benefit of said Parties. Nothing in this Agreement shall be construed as permitting or vesting, or attempting to permit or vest, in any person, corporation, association, entity or power

supplier, other than the Parties, any rights hereunder or in any of the resources or facilities owned or controlled by the Parties or the use thereof.

### **11.2 Waivers**

Any waiver at any time by a Party of its rights with respect to a 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.

### **11.3 Successors and Assigns**

This Agreement shall inure to the benefit of and be binding upon the Parties only, and their respective successors and assigns, and shall not be assignable by any Party without the written consent of the other Parties except to a successor in the operation of its properties by reason of a merger, consolidation, sale or foreclosure whereby substantially all such properties are acquired by or merged with those of such a successor.

### **11.4 Liability and Indemnification**

SUBJECT TO ANY APPLICABLE STATE OR FEDERAL LAW WHICH MAY SPECIFICALLY RESTRICT LIMITATIONS ON LIABILITY, EACH PARTY SHALL RELEASE, INDEMNIFY, AND HOLD HARMLESS THE OTHER PARTIES, THEIR DIRECTORS, OFFICERS AND EMPLOYEES FROM AND AGAINST ANY AND ALL LIABILITY FOR LOSS, DAMAGE OR EXPENSE ALLEGED TO ARISE FROM, OR INCIDENTAL TO, INJURY TO PERSONS AND/OR DAMAGE TO PROPERTY IN CONNECTION WITH ITS FACILITIES OR THE PRODUCTION OR TRANSMISSION OF ELECTRIC ENERGY BY OR THROUGH SUCH FACILITIES, OR RELATED TO PERFORMANCE OR NON-PERFORMANCE OF THIS AGREEMENT, INCLUDING ANY NEGLIGENCE ARISING HEREUNDER. IN NO EVENT SHALL ANY PARTY BE LIABLE TO ANOTHER PARTY FOR ANY INDIRECT, SPECIAL, INCIDENTAL OR

CONSEQUENTIAL DAMAGES WITH RESPECT TO ANY CLAIM ARISING OUT OF THIS AGREEMENT.

**11.5 Section Headings**

The descriptive headings of the Articles and Sections of this Agreement are used for convenience only, and shall not modify or restrict any of the terms and provisions thereof.

**11.6 Notice**

Any notice or demand for performance required or permitted under any of the provisions of this Agreement shall be deemed to have been given on the date such notice, in writing, is deposited in the U.S. mail, postage prepaid, certified or registered mail, addressed to:

AMERICAN ELECTRIC POWER SERVICE CORPORATION  
Senior Vice President, Regulatory Services  
1 Riverside Plaza  
Columbus, Ohio 43215-2373

or in such other form or to such other address as the Parties may stipulate.

**11.7 Interpretation**

In this Agreement: (a) unless otherwise specified, references to any Article or Section are references to such Article or Section of this Agreement; (b) the singular includes the plural and the plural includes the singular; (c) unless otherwise specified, each reference to a requirement of any governmental entity or regional transmission organization includes all provisions amending, modifying, supplementing or replacing such governmental entity or regional transmission organization from time to time; (d) the words "including," "includes" and "include" shall be deemed to be followed by the words "without limitation"; (e) unless otherwise specified, each reference to any tariff or agreement includes all amendments, modifications, supplements, and restatements made to such tariff or agreement from time to time which are not prohibited by this

Agreement; (f) the descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and shall in no way modify or restrict the terms and provisions thereof; and (g) “herein,” “hereof,” “hereto” and “hereunder” and similar terms refer to this Agreement as a whole.

## **ARTICLE XII REGULATORY APPROVAL**

### **12.1 Regulatory Authorization**

This Agreement is subject to and conditioned upon acceptance for filing without material condition or modification by the Commission. In the event that this Agreement is not so accepted for filing in its entirety or without conditions or modifications unacceptable to any Party, or the Commission subsequently modifies this Agreement upon complaint or upon its own initiative (as provided for in Section 12.2), any Party may, irrespective of the notice provisions in Section 2.1, withdraw from this Agreement by giving thirty (30) days’ advance written notice to the other Parties.

### **12.2 Changes**

It is contemplated by the Parties that it may be appropriate from time to time to change, amend, modify or supplement this Agreement, including the Schedule and attachments which are a part of this Agreement, to reflect changes in practices or costs of operations or for other reasons. Any such changes to this Agreement shall be in writing executed by the Parties, subject to approval or acceptance for filing by the Commission.

[Signature page follows]

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**KENTUCKY POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**INDIANA MICHIGAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**WHEELING POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**PUBLIC SERVICE COMPANY OF OKLAHOMA**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**SOUTHWESTERN ELECTRIC POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**SERVICE SCHEDULE A**  
**ALLOCATION OF TRADING AND MARKETING REALIZATIONS**

**A1 – Duration**

This Service Schedule A shall become effective and binding when the Agreement becomes effective, and shall continue in full force and effect throughout the duration of the Agreement, except as provided in Sections 8.1 and 12.2 of the Agreement. This Service Schedule A is a part of the Agreement and, as such, the use of terms in this Service Schedule A that are defined in the Agreement shall have the same meanings as set forth in the Agreement.

**A2 – Allocation of Trading and Marketing Activity Costs**

The AEP East Zone and the AEP West Zone each shall be reimbursed, before determining the Trading and Marketing Realizations, for its respective Out-Of-Pocket Costs and any transmission-related expenses incurred in support of Trading and Marketing Activities. All overhead costs associated with Trading and Marketing Activities shall be allocated between the AEP East Zone and the AEP West Zone in accordance with the Allocation of Trading and Marketing Realizations set out in Section A3 of this Service Schedule A.

**A3 – Allocation of Trading and Marketing Realizations**

The Agent shall determine the Trading and Marketing Realizations on a monthly basis. The realizations shall be allocated between the AEP East Zone and AEP West Zone as specified below:

(a) AEP East Zone – Trading and Marketing Realizations allocated to the AEP East Zone include the following: (1) Trading and Marketing Realizations resulting from



Trading and Marketing Activities at locations served by the PJM and Midcontinent Independent System Operator, Inc. ("MISO") North regions ("MISO North"); (2) Trading and Marketing Realizations resulting from Trading and Marketing Activities at other locations that are initially assigned to originate or terminate within PJM or MISO North and are ultimately settled financially without physical delivery or are settled with power from a location different than PJM or MISO North; and (3) any other Trading and Marketing Realizations resulting from Trading and Marketing Activities that are conducted solely on behalf of the AEP East Operating Companies

(b) AEP West Zone – Trading and Marketing Realizations allocated to the AEP West Zone include the following: (1) Trading and Marketing Realizations resulting from Trading and Marketing Activities at locations served by the SPP, Electric Reliability Council of Texas ("ERCOT") and MISO South regions ("MISO South"); (2) Trading and Marketing Realizations resulting from Trading and Marketing Activities at other locations that are initially assigned to originate or terminate within SPP, ERCOT or MISO South and are ultimately settled financially without physical delivery or are settled with power from an area different than SPP, ERCOT or MISO South; and (3) any other Trading and Marketing Realizations resulting from Trading and Marketing Activities that are conducted solely on behalf of the AEP West Operating Companies..

(c) Notwithstanding paragraphs (a) and (b) above, Trading and Marketing Activities that originate in PJM or MISO North and terminate in SPP, ERCOT or MISO South will be assigned to the AEP East Zone, and Trading and Marketing Activities that originate in ERCOT, MISO South or SPP and terminate in PJM or MISO North will be assigned to the AEP West Zone.

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(d) AEP East Zone and AEP West Zone – Any Trading and Marketing Realizations that cannot be directly assigned to either the AEP East Zone or AEP West Zone based on the above criteria, will be allocated between the two zones. The Trading and Marketing Realizations settled in a given month will be allocated to the two zones in proportion to each zone's total common shareholder equity balance. The total common shareholder equity balance for a zone will be the sum of the total common shareholder equity balances of the Operating Companies in the given zone as of the end of the previous calendar year and will be determined annually by the Agent. These balances will then be applied to allocate the Trading and Marketing Realizations between the two zones during the subsequent twelve-month period beginning June 1 of a given year and ending May 31 of the following year.

(e) This allocation of Trading and Marketing Realizations set out in this Service Schedule A shall remain in effect until such time that is modified pursuant to Section 12.2 of the Agreement.

Appalachian Power Company  
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ATTACHMENT B -2  
(Unmarked Version)

**TRANSMISSION AGREEMENT**

By and among

**APPALACHIAN POWER COMPANY**

**COLUMBUS SOUTHERN POWER COMPANY**

**INDIANA MICHIGAN POWER COMPANY**

**KENTUCKY POWER COMPANY**

**KINGSPORT POWER COMPANY**

**OHIO POWER COMPANY**

**WHEELING POWER COMPANY**

and with

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

**AS AGENT**

**DATED APRIL 1984, AS AMENDED**

Issued By: Richard E. Munczinski  
Senior Vice President, Regulatory Services

Effective: first day of the month after  
the Commission issues a  
final, non-appealable order  
accepting the Agreement  
for filing

Issued On: August 4, 2010

Appalachian Power Company  
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Issued By: Richard E. Munczinski  
Senior Vice President, Regulatory Services

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0.1 THIS AGREEMENT, made and entered into as of the 1st day of April, 1984, and as subsequently amended, by and among APPALACHIAN POWER COMPANY (Appalachian Company), a Virginia corporation, COLUMBUS AND SOUTHERN POWER COMPANY (Columbus Company), an Ohio corporation, INDIANA MICHIGAN POWER COMPANY (Indiana Company), an Indiana corporation, KENTUCKY POWER COMPANY (Kentucky Company), a Kentucky corporation, OHIO POWER COMPANY (Ohio Company), an Ohio corporation, KINGSPORT POWER COMPANY (Tennessee Company), a Tennessee corporation, and WHEELING POWER COMPANY (Wheeling Company), a West Virginia corporation, said companies (herein sometimes called 'Members' when referred to collectively and 'Member' when referred to individually) being affiliated companies of the integrated public utility electric system known as the American Electric Power SYSTEM (AEP System), and AMERICAN ELECTRIC POWER SERVICE CORPORATION (Agent), a New York corporation, being a service company engaged solely in the business of furnishing essential services to the aforesaid companies and to other affiliated companies.

W I T N E S S E T H,  
T H A T:

0.2 WHEREAS, the Members own and operate electric facilities in the states herein indicated, (i) Appalachian Company in Virginia, West Virginia, and Tennessee (ii) Columbus Company in Ohio, (iii) Indiana Company in Indiana and Michigan, (iv) Kentucky Company in Kentucky, (v) Tennessee Company in Tennessee, (vi) Ohio Company in Ohio and West Virginia, and (vii) Wheeling Company in West Virginia; and

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Senior Vice President, Regulatory Services

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0.3 WHEREAS, certain of the Members have entered into an interconnection agreement, dated July 6, 1951, with modification thereto, which provides for certain understandings, conditions, and procedures designed to achieve the full benefits and advantages available through the coordinated operation of their electric power supply facilities; and

0.4 WHEREAS, The Members' electric facilities are now and for many years have been interconnected through their respective transmission facilities at a number of points, forming an integrated transmission network; and

0.5 WHEREAS, the Members have achieved benefits through the coordinated planning and development of a fully integrated Transmission System; and

0.6 WHEREAS, the members believe that an agreement which provides for the equitable sharing among the Members of the costs incurred by the Members in connection with the ownership, operation, and maintenance of their respective portions of the Transmission System would enhance equity among the Members for the continued development of a reliable and economic Transmission System; and

0.7 WHEREAS, effective October 1, 2004 the Members joined the PJM Interconnection, LLC ("PJM"), and placed their respective transmission facilities under the functional control of PJM, a regional transmission operator or "RTO"; and

0.8 WHEREAS, PJM provides transmission service, pursuant to the PJM Open Access Transmission Tariff ("OATT"), to the Members and others who require transmission service over the Transmission System; and

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Senior Vice President, Regulatory Services

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0.9 WHEREAS, the Members believe that benefits and advantages could be best realized if this Agreement were administered by a single clearing agent; and

0.10 WHEREAS, the Members believe that the Agent designated herein for such purpose is qualified to perform such services;

0.11 NOW, THEREFORE, in consideration of the premises and of the mutual covenants and agreements hereinafter contained, the parties hereto hereby agree as follows:

#### ARTICLE 1

##### DESCRIPTION OF TRANSMISSION SYSTEM

1.1 The Transmission System covered by this Agreement shall include all the transmission facilities, from time to time, owned by the Members that are included in the costs of service used to determine rates for transmission service under the PJM OATT, or successor open access transmission tariff.

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## ARTICLE 2

### OPERATION

2.1 Each member shall maintain its respective portion of the Bulk Transmission System, together with all associated facilities and appurtenances, in a suitable condition of repair at all times in order that said system will operate in a reliable and satisfactory manner.

## ARTICLE 3

### TRANSMISSION COMMITTEE

3.1 The Members shall appoint representatives to serve on a Transmission Committee. Such representatives shall have authority to act for the Members in the administration of all matters pertaining to this Agreement.

3.2 Each Member shall designate in writing, delivered to the other Members and Agent, the person who is to act as its representative on said Committee and the person or persons who may serve as alternate whenever such representative is unavailable to act. Agent shall designate in writing delivered to the Members the person who is to act as its representative on said Committee and the person or persons who may serve as alternate whenever such representative is unavailable to act. Such person designated by Agent shall act as chairman of the Transmissions Committee and shall be known as the "Transmission Manager".

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#### ARTICLE 4

##### AGENTS RESPONSIBILITIES

4.1 For the purpose of carrying out the provisions of this Agreement the Members hereby delegate to Agent, and Agent hereby accepts, the responsibility of administration of this Agreement, and in furtherance thereof Agent hereby agrees:

4.11 To arrange for and conduct such meetings of the Transmission Committee as may be required to insure the effective and efficient carrying out of all matters of procedure essential to the complete performance of the provisions of this Agreement.

4.12 To carry out settlements under this Agreement. Settlements by the Members shall be made for each calendar month through General Ledger accounts (hereby designated and hereinafter called the "TRANSMISSION ACCOUNTS") to be administered by Agent. For the purposes of This Agreement, Transmission Accounts shall be consistent with the accounts listed in the FERC Uniform System of Accounts, and shall include such accounts and sub-accounts as are necessary and proper, directed by the Transmission Committee, and consistent with applicable regulatory requirements.

#### ARTICLE 5

##### SETTLEMENTS

5.1 As provided in this Article, following the end of each month, the Members shall effect settlements through the TRANSMISSION ACCOUNTS. Generally, Settlements hereunder will involve the allocation among the Members of transmission-related costs and revenues as incurred and accrued under the PJM OATT,

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or successor open access transmission tariff, and the recording of same in the Transmission Accounts of the Members, as specified in Appendix I consistent with the Settlement Agreement approved in FERC Docket No. ER09-1279-000.

5.2 All amounts to be allocated among the Members hereunder shall, to the extent practicable, be included in Settlements for the month in which such cost or revenue is realized or accrued. If necessary in order to implement such timely Settlement, the Agent shall be authorized to effect Settlements on an estimated basis and make such adjustment as is needed in subsequent Settlements that will conform the Settlements to the terms of this Agreement.

5.3 For such time as Member Tennessee Company and/or Wheeling Company (Buyer) purchase power from Members Appalachian Company and Ohio Company (Seller), respectively, under agreements that provide for transmission service and related charges to Buyer from Seller (Purchased Power Agreements or "PPAs"), Seller will be allocated or assigned the costs as described on Appendix I, numbers seven (7) through fifteen (15), that would otherwise have been allocated or assigned to Buyer under this Agreement. The total amount of such allocated or assigned costs will be passed through to Buyer by Seller as the transmission service and related charges provided for in their PPAs. Such transmission and related costs will be the only transmission charges passed through to Buyer under any such PPA. When any such PPA expires or is otherwise modified or superseded, the provisions of the PPA that provide for

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transmission service and related charges to Buyer from Seller will be discontinued and Tennessee Company and/or Wheeling Company will receive directly, by allocation or direct assignment, the transmission and related costs pursuant to this agreement, as described on Appendix I, numbers seven (7) through fifteen (15). At such time, Seller shall no longer be allocated or assigned costs which are properly allocable or assignable to Buyer under this Agreement. Further, from the effective date of this Agreement as modified in FERC Docket No. ER09-1279, all the Members, including Tennessee Company and Wheeling Company, will receive direct allocation of revenues as provided herein and described on Appendix I, numbers one (1) through six (6).

#### ARTICLE 6

##### TAXES

6.1 If at any time during the duration of this Agreement there should be levied and/or assessed by any governmental authority against any Member any tax related to the receipt of Settlements calculated pursuant to this Agreement (such as sales, excise or similar taxes), such tax expense incurred by such Member that would not have been incurred were the Settlements hereunder not being made, such Member shall be entitled, to the extent permitted by the applicable regulatory authority(ies) to include such tax in its transmission revenue requirement under the PJM or successor OATT when transmission revenue requirements of the Members are next updated, and thereby receive an appropriate level of reimbursement (through cost sharing) for such additional taxes by Members and others receiving service from the Transmission System.

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## ARTICLE 7

### Allocation Principles

7.1 All items of cost and revenue included in Settlements hereunder shall be related to the provision of or receipt of transmission service or a related ("ancillary") service by one or more Members. The allocation methods used to share such costs and revenues, as specified in Appendix I, shall be made pursuant to direction by the Transmission Committee.

7.2 The Transmission Committee may at any time during the Term of This Agreement, upon the recommendation of the Agent or any Member, review any item of cost or revenue, in order to determine whether such item is transmission-related, and whether it should be included in Settlements hereunder. Further, whenever the Transmission Committee determines that any change is needed in Appendix I to add or delete any item of cost or revenue, or to change the allocation or accounting basis of any item, the Transmission Committee shall authorize and direct the Agent to effect such change in Appendix I and in monthly Settlements among the Members and to make any filing with the applicable regulatory authority(ies) to implement such change pursuant to the PJM OATT or any successor open access transmission tariff.

## ARTICLE 8

### MODIFICATION

8.1 Any Member, or the Agent, by written notice given to the other Members and Agent, may call for a reconsideration of the terms and conditions herein provided. If such

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Senior Vice President, Regulatory Services

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the Commission issues a  
final, non-appealable order  
accepting the Agreement  
for filing

Issued On: August 4, 2010

Appalachian Power Company  
First Revised Rate Schedule FERC No. 34

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reconsideration is called for, the Members shall take into account any changed conditions, any results from the application of said terms and conditions, and any other facts that might cause said terms and conditions to result in an inequitable sharing of costs and benefits under this Agreement. Any modification in terms and conditions agreed to by the Members following such reconsideration shall become effective the first day of the month following authorization of such reconsideration by appropriate regulatory authority.

#### ARTICLE 9

##### EFFECTIVE DATE AND TERM OF THIS AGREEMENT

9.1 This Agreement shall become effective and shall become a binding obligation of the Parties on the date specified in an Order in such proceeding as this Agreement shall have been filed with, and accepted for filing by the Federal Energy Regulatory Commission (FERC) under the Federal Power Act as a rate schedule.

9.2 This Agreement shall continue in effect for four years from the effective date of the final order in Docket No. ER09-1279-000 for successive periods of one year each until terminated as provided under subsection 9.3 below.

9.3 Any Member upon at least three years' prior written notice to the other Members and Agent may terminate this Agreement at the expiration of such notice period.

#### ARTICLE 10

##### REGULATORY AUTHORITIES

10.1 The Members recognize that this Agreement, and any tariff or rate schedule which shall embody or supersede this

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Agreement or any part thereof, are in certain respects subject to the jurisdiction of the FERC under the Federal Power Act, and are also subject to such lawful action as any regulatory authority having jurisdiction shall hereafter take with respect thereto. The performance of any obligation of the Members shall be subject to the receipt from time to time as required of such authorizations, approvals or actions of regulatory authorities having jurisdiction as shall be required by law.

10.2 Subject to the terms of the Settlement in Docket NO. ER09-1279-000, it is expressly understood that any Member under this Agreement, as it may hereafter from time to time be modified and supplemented by the Members, shall be entitled, at any time and from time to time, unilaterally to make application to the FERC for a change in rates, charges, classification of service, or any rule, regulation or contract relating thereto, or to make any change in or supersede in whole or in part any provision of this Agreement, under Section 205 of the Federal Power Act and pursuant to the FERC's Rules and Regulations promulgated thereunder.

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ARTICLE 11

ASSIGNMENT

11.1 This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the respective parties.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in their respective corporate names and on their behalf by their proper officers thereunto daily authorized as of the day and year first above written.

**Next Page is Signature Page**

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**Transmission Agreement Among:**

AMERICAN ELECTRIC POWER  
SERVICE CORPORATION,

By: \_\_\_\_\_

Senior Vice President

KINGSPORT POWER COMPANY,

By: \_\_\_\_\_

President and Chief Operating  
Officer

APPALACHIAN POWER COMPANY,

By: \_\_\_\_\_

President and Chief Operating  
Officer

OHIO POWER COMPANY, and

By: \_\_\_\_\_

Vice President

COLUMBUS SOUTHERN POWER  
COMPANY,

By: \_\_\_\_\_

President and Chief Operating  
Officer

WHEELING POWER COMPANY

By: \_\_\_\_\_

President

INDIANA MICHIGAN POWER  
COMPANY,

By: \_\_\_\_\_

KENTUCKY POWER COMPANY,

By: \_\_\_\_\_

President and Chief Operating  
Officer

**Dated as of:**

\_\_\_\_\_  
Issued By: Richard E. Munczinski  
Senior Vice President, Regulatory Services

Effective: first day of the month after  
the Commission issues a  
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Appendix I

**AEP Transmission Agreement  
 Allocation of Transmission Related Costs and Revenues**

#	Item	FERC Account*	PJM Billing Basis	AEP Allocation Basis
<b>AEP as Transmission Owner (Revenues)</b>				
1	Transmission Owner Scheduling, System Control and Dispatch Service (PJM Schedule 1A)	456.1	NSPL	ARR S1A
2	NITS (AEP LSE)	456.1	NSPL	ATRR
3	NITS (Non-Affiliates)	456.1	NSPL	ATRR
4	Grandfathered PTP (NCEMC)	456.0	Contract	ATRR
5	PJM Expansion Cost Recovery Charge (ECRC)	456.1	NSPL	ARR EC
6	RTO Startup Cost Recovery Charge (SCRC)	456.1	NSPL	ARR SC

<b>AEP as LSE (Expenses)</b>				
7	Transmission Owner Scheduling, System Control and Dispatch Service (PJM Schedule 1A)	456.1	MWh	MWh
8	NITS Charges (for AEP Retail Load)	456.1	NSPL	12CP
9	NITS Charges for AEP FR Customers <sup>1/</sup>	447.0	NSPL	DA
10	NITS Reimbursement from AEP FR Customers <sup>1/</sup>	447.0	NSPL	DA
11	Firm Point-to-Point Credits (for AEP Retail Load)	456.1	NSPL	12CP
12	Non-Firm Point-to-Point Credits (AEP Retail Load)	456.1	NSPL	12CP
13	Transmission Enhancement (Schedule 12)	565.0	NSPL	12CP
14	PJM Expansion Cost Recovery Charge (ECRC)	456.1	NSPL	12CP
15	RTO Startup Cost Recovery Charge (SCRC)	456.1	NSPL	12CP

<b>NSPL</b>	PJM Network Service Peak Load
<b>Contract</b>	Pre-OATT FERC Rate Schedules
<b>ARR S1A</b>	Annual Revenue Requirement - Schedule 1A
<b>ATRR</b>	Annual Transmission Revenue Requirement
<b>ARR EC</b>	Annual Revenue Requirement - Expansion Cost Recovery
<b>ARR SC</b>	Annual Revenue Requirement - Startup Cost Recovery
<b>12CP</b>	Average of 12 coincident peaks through 10/31 of prior year
<b>DA</b>	Directly Assigned to Operating Company

\* Note: Should the net amount in 456.1 for any Member be negative, e.g. more expense than revenue, the net expense will be recorded in 565.0.

1/ Includes all transmission-related LSE expenses (NITS, Schedule 1A, Point-to-Point Credits, Schedule 12, ECRC, SCRC) which are directly assigned to Operating Company for AEP FR Customers.

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## ATTACHMENT H-14

### **Annual Transmission Rates – AEP East Operating Companies For Network Integration Transmission Service**

1. The annual transmission revenue requirement and the gross rate for Network Integration Transmission Service for the transmission facilities of American Electric Power (“AEP”) under the functional control of PJM will be posted on the PJM website. The rate determined pursuant to Attachment H-14B shall be implemented pursuant to the Formula Rate Implementation Protocols set forth in Attachment H-14A. Service utilizing other facilities will be provided at rates determined on a case-by-case basis.
2. **Determination of monthly charges for AEP Zone:** On a monthly basis, revenue credits shall be calculated based on the sum of AEP’s share of revenues collected during the month from: (i) the PJM Border Rate under Schedule 7; (ii) Network Integration Transmission Service to Non-Zone Network Load under Attachment H-A; and (iii) Firm Point-To-Point Transmission Service where the Point of Delivery is internal to the AEP Zone. The sum of these revenue credits and potential charges will appear as an adjustment (reduction) to the gross monthly rate stated above on a Transmission Customer’s bill in that month for service under this schedule.
3. In addition to other rates set forth in this schedule, customers within the AEP East Zone shall be charged for recovery of RTO start-up costs at the following rates, each computed to four decimal places:

Annual Rate -  $\$/kW/year = \$2,362,185$ , plus any applicable true-up adjustment, divided by the 1 CP demand for the AEP East Zone for the prior calendar year;

Monthly Rate -  $\$/kW/month. = Annual Rate$  divided by 12;

Weekly Rate -  $\$/kW/week = Annual Rate$  divided by 52;

Daily Rate -  $\$/kW/day = Weekly Rate$  divided by 5.

For the period November 1, 2005 through March 31, 2006, the rate shall be  $\$8.94/MW-month$ ; for the period April 1 through December 31, 2006, the rate shall be  $\$8.60/MW-month$ , thereafter, the rate will be subject to the following true-up:

In order to ensure that the charge does not result in either over-recovery or under-recovery of AEP’s start-up costs, PJM will institute an annual true-up mechanism and implement revised charges as of January 1st of each of the years 2007-2019. In January of each of those years, PJM will compare the amount collected under this charge for the previous year or part thereof with the target annual amount of  $\$2,362,185$  and calculate the rates that would be needed, given the expected billing demands to collect  $\$2,362,185$ , adjusted for any prior year over-collection or under-collection. In the final year that the rate is collected, PJM will calculate the rate to collect five-twelfths of the annual amount ( $\$984,244$ ), plus or minus

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any prior year true up amount, by May 31 of that year, and shall charge such rate until that amount is collected, whether that date be before or after May 31, 2020.

4. Within the AEP Zone, a Network Customer's peak load shall be adjusted to include transmission losses equal to 3.3% of energy received for transmission (3.413% at delivery) as well as any applicable distribution losses as reflected in applicable state tariffs and/or service agreements that contain specific distribution loss factors for said Network Customer. Notwithstanding section 15.7 of the Tariff the transmission loss factor of 3.3% also shall apply to point-to-point transmission service with a point of delivery in the AEP Zone.
5. The rate in section 1 of this Attachment shall be effective until amended by the Transmission Owner(s) within the zone or modified by the Commission.
6. In addition to the rate set forth in section (1) above, the Network Customer purchasing Network Integration transmission Service shall pay for transmission congestion charges, and any other applicable charges, in accordance with the provisions of this Tariff, and any amounts necessary to reimburse the Transmission Owners for any amounts payable to them as sales, excise, "btu," carbon, value-added, or similar taxes (other than taxes based upon or measured by net income) with respect to the amounts payable pursuant to the Tariff.

**7. Post Settlement of PJM Inadvertent Energy Allocation:**

PJM arranges for the settlement of inadvertent energy charges and payments and recovers its costs from LSEs throughout the PJM region. The inadvertent energy charge or credit assigned by PJM to the AEP Zone each hour will be allocated to each LSE in the AEP Zone in proportion to the LSE's share of the AEP Zone load in such hour.

**8. Methodology for Allocation of PJM Assessments Related to Differences Between the AEP Zone Average Hourly LMPs and the AEP Zone Residual Load Average Hourly LMPs:** PJM includes on AEP's monthly Transmission Owner statement a credit or charge for Implicit Transmission Congestion in respect of the hourly variance of the average LMP for loads not utilizing specific bus aggregate LMPs (Residual Load), and the LMP averaged over all load in the AEP Zone. This credit or charge represents an over or under collection of load LMPs from LSEs within the AEP Zone that have not elected to use a specific nodal aggregate LMP. Until PJM develops the accounting procedures necessary to avoid creation of an over or under collection of LMP charges from LSEs that do not utilize specific bus aggregate LMPs, AEP will allocate such credits or charges to LSEs in the AEP Zone that have not elected to use a specific bus aggregate LMP, in proportion to their hourly load and the difference each hour between the AEP Zone average LMP and the AEP Zone residual average LMP (the AEP Zone average LMP excluding the load and costs for customers electing specific nodal LMPs).

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**ATTACHMENT H-14A  
THE AEP EAST OPERATING COMPANIES  
FORMULA RATE IMPLEMENTATION PROTOCOLS**

The formula rate template (“Template”), and these formula rate implementation protocols (“Protocols”) together comprise the filed rate (“Formula Rate”) of Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, and Wheeling Power Company (collectively “AEP East Companies” or “AEP”) for transmission revenue requirement determinations under the PJM Interconnection, LLC (“PJM”) Open Access Transmission Tariff (“PJM Tariff”). AEP shall follow the instructions specified in the Formula Rate to calculate annually its net annual transmission revenue requirement, as set forth at Attachment H-14B, page 1, line 4 of the Template (“Net Revenue Requirement”). The Net Revenue Requirement shall be determined for January 1 to December 31 of a given calendar year (the “Rate Year”). The Formula Rate shall become effective for recovery of AEP’s Net Revenue Requirement upon the effective date for incorporation into the PJM Tariff through a filing with the Federal Energy Regulatory Commission (“FERC” or “Commission”) under Section 205 of the Federal Power Act (“FPA”), 16 U.S.C. § 824d.

**Section 1. Annual Projection**

- a. No later than October 31 preceding a Rate Year, and each subsequent Rate Year, AEP shall determine its projected Net Revenue Requirement for the upcoming Rate Year in accordance with the Formula Rate (“Annual Projection”). The Annual Projection shall include the True-Up Adjustment described and defined in Section 2 below, if applicable. AEP shall cause an electronic version of the Annual Projection to be posted in both a Portable Document Format (“PDF”) and fully-functioning Excel file at a publicly

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accessible location on PJM's internet website and OASIS. The date on which the posting occurs shall be that year's "Annual Projection Publication Date."

- b. The posting of the Annual Projection shall:
- (i) Provide the Formula Rate calculations and all inputs thereto, as well as supporting documentation and workpapers for data that are used in the projected Net Revenue Requirement;
  - (ii) Include all inputs in sufficient detail to identify the components of AEP's projected Net Revenue Requirement, explanations of the bases for the projections and input data, and sufficient detail and explanation to enable Interested Parties<sup>1</sup> to replicate the calculation of the projected Net Revenue Requirement;
  - (iii) With respect to any Accounting Changes (as that term is defined in Section 3.e.iii)
    - A. Identify any Accounting Changes including:
      - i. The initial implementation of an accounting standard or policy;
      - ii. The initial implementation of accounting practices for unusual or unconventional items where FERC has not provided specific accounting direction;
      - iii. Correction of errors and prior period adjustments that impact the projected Net Revenue Requirement calculation;
      - iv. The implementation of new estimation methods or policies that change prior estimates; and

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<sup>1</sup> As used in these Protocols, "Interested Parties" shall include but not be limited to: (i) any Eligible Customer under the PJM Tariff; (ii) any regulatory agency with rate jurisdiction over a public utility located within the PJM footprint; (iii) any consumer advocate authorized by state law to review and contest the rates for any such public utility; and (iv) any party with standing under FPA section 205 or section 206.

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- v. Changes to income tax elections;
- B. Identify items included in the projected Net Revenue Requirement at an amount other than on a historic cost basis (e.g., fair value adjustments);
- C. Identify any reorganization or merger transaction during the previous year and explain the effect of the accounting for such transaction(s) on inputs to the projected Net Revenue Requirement; and
- D. Provide, for each item identified pursuant to Section 1.b.iii.A - C of these Protocols, a narrative explanation of the individual impact of such changes on the projected Net Revenue Requirement.

(iv) Include the following information related to affiliate cost allocation:

- A. A detailed description of the methodologies used to allocate and directly assign costs between AEP and its affiliates by service category or function, including any changes to such cost allocation methodologies from the prior year, and the reasons for those changes; and
- B. The magnitude of such costs that have been allocated or directly assigned between AEP and each affiliate by service category or function.

- c. If the date for making the posting of the Annual Projection should fall on a weekend or a holiday recognized by FERC, then the posting shall be made no later than the next business day.<sup>2</sup> Within five (5) calendar days of the posting, PJM shall provide notice of such posting via the PJM Members Committee email subscription (“PJM Exploder List”). Interested Parties can subscribe to the PJM Exploder List on the PJM website.

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<sup>2</sup> For the purposes of these Protocols, if any deadline included in these Protocols should fall on a weekend or a holiday recognized by FERC, then the deadline shall be extended to no later than the next business day.

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- d. Together with the posting of the Annual Projection, AEP shall cause to be posted on the PJM internet website and OASIS, and distributed to the PJM Exploder List, the time, date, location, and remote-access information for a stakeholder meeting with Interested Parties in order for AEP to explain its Annual Projection and to provide Interested Parties an opportunity to seek information and clarifications regarding the Annual Projection (“Annual Projection Meeting”). The Annual Projection Meeting shall be held no less than twenty (20) business days and no more than thirty (30) business days after the posting of the Annual Projection. Notice of the Annual Projection Meeting shall be provided via the PJM Exploder List no less than seven (7) calendar days prior to the meeting. AEP will provide remote access to the Annual Projection Meeting in order to ease burdens (e.g. travel costs) to ensure all Interested Parties have the opportunity to participate.
- e. To the extent AEP agrees to make changes in the Annual Projection for a given Rate Year, such revised Annual Projection shall be promptly posted at a publicly accessible location on PJM’s internet website and OASIS, and e-mailed to the PJM Exploder List. Changes posted prior to November 30 preceding the Rate Year, or the next business day if November 30 is not a business day (or such later date as can be accommodated under PJM’s billing practices), shall be reflected in the Annual Projection for the Rate Year; changes posted after that date will be reflected, as appropriate, in the True-Up Adjustment for the Rate Year.
- f. The Annual Projection, including the True-Up Adjustment, for each Rate Year shall be subject to review, challenge, true-up, and refunds or surcharges with interest, to the extent and in the manner provided in these Protocols.

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## **Section 2. True-Up Adjustment**

AEP will calculate the amount of under- or over-collection of its actual Net Revenue Requirement during the preceding Rate Year (“True-Up Adjustment”) after the FERC Form No. 1 data for that Rate Year has been filed with the Commission. The True-Up Adjustment shall be the sum of the True-Up Adjustment Over/Under Recovery as determined in Section 2(a) and the Interest on the True-Up Adjustment Over/Under Recovery as determined in Section 2(b):

- a. AEP’s projected Net Revenue Requirement collected during the previous Rate Year<sup>3</sup> will be compared to AEP’s actual Net Revenue Requirement for the previous Rate Year calculated in accordance with AEP’s Formula Rate and based upon (i) AEP’s FERC Form No. 1 for that same Rate Year, (ii) any FERC orders specifically applicable to AEP’s calculation of its annual revenue requirement, (iii) the books and records of AEP (which shall be maintained consistent with the FERC Uniform System of Accounts (“USofA”)), (iv) FERC accounting policies and practices applicable to the calculation of annual revenue requirements under formula rates, and (v) any aspects of the PJM Tariff Governing Documents that apply to the calculation of annual revenue requirements under

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<sup>3</sup> If the initial use of this Formula Rate covers only part of a calendar year, the initial projected annual Net Revenue Requirement will be divided by 12 to calculate the monthly projected cost of service to be collected each month it is effective that first year. Similarly, the actual Net Revenue Requirement will be divided by 12 to calculate the actual monthly cost of service to be collected during those same months of that year. Similar calculations of projected Net Revenue Requirement and actual Net Revenue Requirement will be made for the months prior to the effective date of this Formula Rate using the previous formula rate in effect during those months. The actual Net Revenue Requirements computed under each of the two formula rate periods that initial Rate Year will be added together to obtain the total actual Net Revenue Requirement. The first True-up Adjustment will compare this total actual Net Revenue Requirement to the Net Revenue Requirement collected under the two formulas for that initial Rate Year.



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individual transmission owner formula rates,<sup>4</sup> to determine any over- or under-recovery (“True-Up Adjustment Over/Under Recovery”).

- b. Interest on any True-Up Adjustment Over/Under Recovery shall be calculated for the thirty-six (36) months during which the over or under recovery in the revenue requirement remains outstanding (*i.e.*, from January 1 of the Rate Year being trued-up through December 31 of the year in which the True-Up Adjustment Over/Under recovery is credited or collected). The interest rate to be applied to the True-Up Adjustment Over/Under Recovery amounts will be determined using the average monthly FERC Interest Rate (as determined pursuant to 18 C.F.R. § 35.19a) for the twenty (20) months from the beginning of the Rate Year being trued-up through August 31 of the following year.

### **Section 3. Annual Update**

- a. On or before May 25 following each Rate Year, AEP shall calculate its actual Net Revenue Requirement and the True-Up Adjustment as described in Section 2 (“Annual Update”) for such Rate Year and, together with such other information described in this Section 3, shall cause such Annual Update to be posted, in both a PDF and fully-functioning Excel format, at a publicly accessible location on PJM’s internet website and OASIS. Within five (5) calendar days of such posting, PJM shall provide notice of such posting via the PJM Exploder List.
- b. If the date for making the Annual Update posting should fall on a weekend or a holiday recognized by the FERC, then the posting shall be due on the next business day.

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<sup>4</sup> *PJM Tariff Governing Documents include the PJM Tariff, Bylaws, Criteria, and Membership Agreements.*

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- c. The date on which the posting occurs shall be that year's "Annual Update Publication Date."
- d. Together with the posting of the Annual Update, AEP shall cause to be posted on the PJM website and OASIS the time, date, location, and remote-access information for a stakeholder meeting with Interested Parties in order for AEP to explain its Annual Update and to provide Interested Parties an opportunity to seek information and clarifications regarding the Annual Update ("Annual Update Meeting"). Notice of the Annual Update Meeting shall be provided via the PJM Exploder List no less than seven (7) calendar days prior to the meeting. The Annual Update Meeting shall be held no less than twenty (20) business days and no more than thirty (30) business days after the Annual Update Publication Date. AEP will provide remote access to the Annual Update Meeting in order to ease burdens (e.g. travel costs) to ensure all Interested Parties have the opportunity to participate.
- e. The Annual Update posting for the Rate Year:
  - (i) Shall provide, via the Formula Rate worksheets, sufficiently detailed supporting documentation for data (and all adjustments thereto or allocations thereof) used in the Formula Rate that are not stated in the FERC Form No. 1;<sup>5</sup>

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<sup>5</sup> It is the intent of the Formula Rate, including the supporting explanations and allocations described therein, that each input to the Formula Rate for purposes of determining the actual Net Revenue Requirement for a given Rate Year will be either taken directly from the FERC Form No. 1 or reconcilable to the FERC Form No. 1 by the application of clearly identified and supported information. If the referenced form is superseded, the successor form(s) shall be utilized and supplemented as necessary to provide equivalent information as that provided in the superseded form. If the referenced form is discontinued, equivalent information as that provided in the discontinued form shall be utilized.

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- (ii) Shall provide sufficient detail and sufficient explanation to enable Interested Parties to replicate the calculation of the Annual Update results from the FERC Form No. 1 and verify that each input to the Template is consistent with the requirements of the Formula Rate;
- (iii) Shall identify:
  - A. Any change in accounting that affects inputs to the Template or the resulting charges billed under the Formula Rate (“Accounting Change”), including:
    - i. The initial implementation of an accounting standard or policy;
    - ii. The initial implementation of accounting practices for unusual or unconventional items where FERC has not provided specific accounting direction;
    - iii. Correction of errors and prior period adjustments that impact the True-Up Adjustment calculation;
    - iv. The implementation of new estimation methods or policies that change prior estimates; and
    - v. Changes to income tax elections;
  - B. Any items included in the Annual Update at an amount other than on a historic cost basis (e.g., fair value adjustments);
  - C. Any reorganization or merger transaction during the previous year and an explanation of the effect of the accounting for such transaction(s) on inputs to the Annual Update;

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- D. For each item identified pursuant to Sections 3.e.iii.A – C of these Protocols, the individual impact (in narrative format) of such changes on the Annual Update.
- (iv) Shall be subject to review and challenge in accordance with the procedures set forth in Sections 4, 5, and 6 of these Protocols.
  - (v) Shall be subject to review and challenge in accordance with the procedures set forth in these Protocols with respect to the prudence of any costs and expenditures included for recovery in the Annual Update; provided, however, that nothing in these Protocols is intended to modify the Commission’s applicable precedent with respect to the burden of going forward or burden of proof under formula rates in such prudence challenges; and
  - (vi) Shall not seek to modify the Formula Rate and shall not be subject to challenge by any Interested Party seeking to modify the Formula Rate (i.e., any modifications to the Formula Rate will require, as applicable, an FPA section 205 or section 206 filing or initiation of a section 206 investigation).
- f. The following Formula Rate inputs shall be stated values to be used in the Formula Rate until changed pursuant to an FPA section 205 or section 206 proceeding: (i) rate of return on common equity (“ROE”); (ii) the depreciation and/or amortization rates as set forth in Attachment 10 to the Formula Rate template, and (iii) Post-Employment benefits other than Pension (“PBOP”) charges pursuant to Statement of Financial Accounting Standards No. 106, Employers’ Accounting for Postretirement Benefits Other Than Pensions.

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g. **Example – Timelines for 2018 Annual Projection and 2019 Annual Update:**

On or before October 31, 2017, AEP will determine the projected Net Revenue Requirement for the 2018 Rate Year. AEP will post the Annual Projection for the 2018 Rate Year in accordance with Section 1 above. On or before May 25, 2019, AEP will post its Annual Update, consisting of the actual Net Revenue Requirement and True-Up Adjustment for the 2018 Rate Year determined pursuant to Section 2 above. Such True-Up Adjustment will be reflected in the Annual Projection of the Net Revenue Requirement for the 2020 Rate Year posted on or before October 31, 2019.

**Section 4. Annual Review Procedures**

Each Annual Update and Annual Projection shall be subject to the following review procedures (“Annual Review Procedures”):

- a. Interested Parties shall have up to the later of two-hundred-ten (210) calendar days after the applicable Publication Date, or thirty (30) calendar days after the receipt of all responses to timely submitted information requests (unless such period is extended with the written consent of AEP or by FERC order) (“Review Period”), to review the calculations and to notify AEP in writing of any specific challenges to the Annual Update or Annual Projection (“Preliminary Challenge”), including challenges related to Accounting Changes. An Interested Party submitting a Preliminary Challenge must specify the inputs, supporting explanations, allocations, calculations, or other information to which it objects, and provide an appropriate explanation and documents to support its challenge. AEP shall cause to be posted all Preliminary Challenges at a

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- publicly accessible location on PJM's internet website and OASIS, and a link to the website will be e-mailed to the PJM Exploder List.
- b. In the event of a Preliminary Challenge, AEP will appoint a senior representative to work with the Interested Party (or its representatives) toward a resolution of the dispute.
- c. AEP shall respond in writing to a Preliminary Challenge within twenty (20) business days of receipt, and its response shall notify the challenging party of the extent to which AEP agrees or disagrees with the challenge. If AEP disagrees with the Preliminary Challenge, it will provide the Interested Party with an explanation supporting the challenged inputs, explanations, allocations, calculations, or other information. AEP shall promptly cause to be posted its responses to all Preliminary Challenges at a publicly accessible location on PJM's internet website and OASIS, and a link to the website will be e-mailed to the PJM Exploder List. Notwithstanding the foregoing, Preliminary Challenges and responses to Preliminary Challenges that include material deemed by AEP to be confidential information will not be publicly posted but will be made available to requesting parties pursuant to a confidentiality agreement to be executed by AEP and the requesting party.
- d. AEP shall respond to all Preliminary Challenges submitted during the Review Period by no later than thirty (30) calendar days after the end of the Review Period.
- e. Interested Parties shall have up to one-hundred-fifty (150) calendar days after each annual Publication Date (unless such period is extended with the written consent of AEP or by FERC order) to serve reasonable information requests on AEP ("Discovery Period").

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- f. Information requests shall be limited to what is necessary to determine: (i) the extent, effect, or impact of an Accounting Change; (ii) whether the Annual Update or Annual Projection fails to include data properly recorded in accordance with the Protocols; (iii) the proper application of the Template and procedures in the Protocols; (iv) the accuracy of data and consistency with the Formula Rate of the charges shown in the Annual Update or Annual Projection; (v) the prudence of the actual costs and expenditures, including procurement methods and cost control methodologies; (vi) the effect of any change to the underlying USofA or FERC Form No. 1; and (vii) any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the Formula Rate. The information requests shall not otherwise be directed to ascertaining whether the Formula Rate is just and reasonable. Information requests shall not solicit information concerning costs or allocations where the costs or allocation methods have been determined to be appropriate by FERC in the context of prior AEP Annual Updates, except that such information requests shall be permitted if they (i) seek to determine if there has been a change in circumstances, (ii) are in connection with corrections pursuant to Section 6 of these Protocols, or (iii) relate to costs or allocations that have not previously been challenged and adjudicated by FERC.
- g. AEP shall make a good faith effort to respond to reasonable information requests pertaining to the Annual Update or Annual Projection within fifteen (15) business days of receipt of such requests. AEP shall respond to all reasonable information requests no later than thirty (30) calendar days after the end of the Discovery Period. AEP will cause to be posted on the PJM website and OASIS all information requests from Interested Parties and AEP's response(s) to such requests, and a link to the website will be e-mailed

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to the PJM Exploder List. Notwithstanding the foregoing, information and document requests and responses to information and document requests that include material deemed by AEP to be confidential information will not be publicly posted but will be made available to requesting parties pursuant to a confidentiality agreement to be executed by AEP and the requesting party. Voluminous materials will be made available at a physical AEP site.

- h. AEP shall not claim that responses to information and document requests provided pursuant to these Protocols are subject to any settlement privilege in any subsequent FERC proceeding addressing AEP's Annual Update or Annual Projection.
- i. To the extent AEP and any Interested Party(ies) are unable to resolve disputes related to information requests submitted in accordance with these Annual Review Procedures, AEP or the Interested Party may petition the FERC to appoint an Administrative Law Judge as a discovery master to resolve the discovery dispute(s) in accordance with these Protocols and consistent with the FERC's discovery rules.
- j. Preliminary Challenges or Formal Challenges (as described in Sections 4 and 5) related to Accounting Changes shall be treated in the same manner under these Protocols as other challenges to the Annual Update or Annual Projection. Failure to make a Preliminary Challenge with respect to an Accounting Change in an Annual Update or Annual Projection shall not act as a bar with respect to a Formal Challenge with respect to that Annual Update or Annual Projection provided that the Interested Party submitted a Preliminary Challenge with respect to one or more other issues. Nor shall such failure bar a subsequent Preliminary Challenge related to a subsequent Annual Update or



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Annual Projection to the extent such Accounting Change affects the subsequent Annual Update or Annual Projection.

- k. If a change made by AEP to its accounting policies, practices, or procedures, or the application of the Formula Rate, is found by the FERC to be unjust, unreasonable, or unduly discriminatory or preferential, then the calculation of the charges to be assessed during the Rate Year then under review, and the charges to be assessed during any subsequent Rate Years, including any True-up Adjustments, shall not include such change, but shall include any remedy that may be prescribed by FERC in the exercise of its discretion as of the effective date of such remedy, to ensure that the Formula Rate continues to operate in a manner that is just, reasonable, and not unduly discriminatory or preferential.

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## Section 5. Resolution of Challenges

- a. Interested Parties shall have up to two-hundred-seventy (270) days following the applicable Publication Date (unless such period is extended with the written consent of AEP or by FERC order), to file a challenge with the FERC (“Formal Challenge”). Such Formal Challenge shall be submitted in the same docket as the AEP informational filing and shall be served on AEP by electronic service on the date of such filing in accordance with Section 385.2010(f)(3) of the Commission’s regulations. Subject to any applicable confidentiality and Critical Energy Infrastructure Information restrictions, all information and correspondence produced by AEP pursuant to these Protocols may be included in any Formal Challenge or other FERC proceeding relating to the Formula Rate.
- b. Formal Challenges are to be filed pursuant to these Protocols, rather than under rule 206, and shall:
  - (i) Clearly identify the action or inaction which is alleged to violate the Formula Rate Template or Protocols;
  - (ii) Explain how the action or inaction violates the filed rate Template or Protocols;
  - (iii) Set forth the business, commercial, economic or other issues presented by the action or inaction as such relate to or affect the party filing the Formal Challenge, including
    - A. The extent or effect of an Accounting Change;
    - B. Whether the Annual Update or Annual Projection fails to include data properly recorded in accordance with these Protocols;

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- C. The proper application of the Template and procedures in these Protocols;
  - D. The accuracy of the data and consistency with the Formula Rate of the charges shown in the Annual Update or Annual Projection;
  - E. The prudence of actual costs and expenditures;
  - F. The effect of any change to the underlying Uniform System of Accounts or the FERC Form No. 1; or
  - G. Any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the Template.
- (iv) Make a good faith effort to quantify the financial impact or burden (if any) created for the party filing the Formal Challenge as a result of the action or inaction;
  - (v) State whether the issues presented are pending in an existing Commission proceeding or a proceeding in any other forum in which the filing party is a party, and if so, provide an explanation why timely resolution cannot be achieved in that forum;
  - (vi) State the specific relief or remedy requested, including any request for stay or extension of time, and the basis for that relief;
  - (vii) Include all documents that support the facts in the Formal Challenge in possession of, or otherwise attainable by, the filing party, including, but not limited to, contracts and affidavits; and

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- (viii) State whether the filing party utilized the Preliminary Challenge procedures described in these Protocols to dispute the action or inaction raised by the Formal Challenge, and, if not, describe why not.
- c. Preliminary and Formal Challenges shall be limited to issues that may be necessary to determine: (i) the extent or effect of an Accounting Change; (ii) whether the Annual Update or Annual Projection fails to include data properly recorded in accordance with these Protocols; (iii) the proper application of the Formula Rate and procedures in these Protocols; (iv) the accuracy of data and consistency with the Formula Rate of the calculations shown in the Annual Update and Annual Projection; (v) the prudence of actual costs and expenditures; (vi) the effect of any change to the underlying Uniform System of Accounts or FERC Form No. 1; or (vii) any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the formula.
- d. Failure to raise an issue in a Preliminary Challenge shall not bar an Interested Party from raising that issue in a Formal Challenge, provided the Interested Party submitted a Preliminary Challenge during the Review Period with respect to one or more other issues. Failure to pursue an issue through a Preliminary Challenge or to lodge a Formal Challenge regarding any issue as to a given Annual Update shall bar pursuit of such issue with respect to that Annual Update, but shall not bar pursuit of such issue or the lodging of a Formal Challenge as to such issue as it relates to a subsequent Annual Update.

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- e. Any response by AEP to a Formal Challenge must be submitted to the FERC within thirty (30) calendar days of the date of the filing of the Formal Challenge, and shall be served on the filing party(ies) and the PJM Exploder List on the date of such filing.
- f. In any Formal Challenge proceeding concerning an Annual Update (including corrections), Annual Projection, or Accounting Change(s), AEP shall demonstrate the justness and reasonableness of the rate resulting from its application of the Formula Rate by demonstrating that it [has correctly applied the terms of the Formula Rate consistent with these Protocols and that it followed the applicable requirements and procedures in applying the Formula Rate.](#) Nothing herein is intended to alter the burdens applied by FERC with respect to prudence challenges.
- g. Except as specifically provided herein, nothing herein shall be deemed to limit in any way the right of AEP to file unilaterally, pursuant to section 205 of the FPA and the regulations thereunder, an application seeking changes to the Formula Rate or to any of the stated value inputs requiring a section 205 filing under these Protocols (including, but not limited to, ROE and depreciation and amortization rates), or the right of any other party or the Commission to seek such changes pursuant to section 206 of the FPA and the regulations thereunder.
- h. AEP may, at its discretion and at a time of its choosing, make a limited filing pursuant to section 205 to modify stated values in the Formula Rate (i) for amortization and depreciation rates, (ii) to correct obvious errors or omissions in the Formula Rate such as would result from changes to the FERC Form No. 1, or (iii) PBOP charges pursuant to Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions. The sole issue in any such limited

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section 205 proceeding shall be whether such proposed change(s) is just and reasonable, and it shall not address other aspects of the Formula Rate or impose upon AEP any burden with respect to such other aspects of the Formula Rate.

**Section 6. Changes to Annual Updates**

If AEP determines or concedes that corrections to the Annual Update are required, whether under Sections 4 or 5 of these Protocols, including but not limited to those requiring corrections to its FERC Form No. 1, or input data used for a Rate Year that would have affected the Annual Update for that Rate Year, such corrections shall be reflected as adjustments in the Annual Update for the next Rate Year, with interest calculated in accordance with the FERC Interest Rate (as determined pursuant to 18 C.F.R. § 35.19a). This reconciliation mechanism shall apply in lieu of mid-Rate Year adjustments.

ATTACHMENT H-14B  
 BLANK FORMULA TEMPLATE - CLEAN

AEP East Companies  
 Transmission Cost of Service Formula Rate  
 Utilizing Actual/Projected FERC Form 1 Data

For Twelve Months Ended

COMPANY NAME HERE

Line No.			Transmission		Amount
			Total	Allocator	
1	REVENUE REQUIREMENT (w/o incentives)	(ln 130)			\$0
2	REVENUE CREDITS	(Worksheet E ln 8) (Note A)	-	DA 1.00000	\$ -
3	Facility Credits under PJM OATT Section 30.9	(Worksheet E ln 9) (Note X)			\$ -
4	REVENUE REQUIREMENT For All Company Facilities	(ln 1 less ln 2 plus ln 3)			\$ -
<b>MEMO: The Carrying Charge Calculations on lines 7 to 12 below are used in calculating project revenue requirements billed through PJM Schedule 12, Transmission Enhancement Charges. The total non-incentive revenue requirements for these projects shown on line 5 is included in the total on line 4.</b>					
5	Revenue Requirement for PJM Schedule 12 Facilities (w/o incentives) (Worksheet J/K)		-	DA 1.00000	\$ -
6	NET PLANT CARRYING CHARGE w/o intra-AEP charges or credits or ROE incentives (Note B)				
7	Annual Rate	$(\ln 1 - \ln 95) / ((\ln 42) \times 100)$			0.00%
8	Monthly Rate	$(\ln 7 / 12)$			0.00%
9	NET PLANT CARRYING CHARGE ON LINE 7, w/o depreciation or ROE incentives (Note B)				
10	Annual Rate	$(\ln 1 - \ln 95 - \ln 100) / ((\ln 42) \times 100)$			0.00%
11	NET PLANT CARRYING CHARGE ON LINE 10, w/o Return, income taxes or ROE incentives (Note B)				
12	Annual Rate	$(\ln 1 - \ln 95 - \ln 100 - \ln 125 - \ln 126) / ((\ln 42) \times 100)$			0.00%
13	ADDITIONAL REVENUE REQUIREMENT for projects w/ incentive ROE's (Note B) (Worksheet J/K)				-
14	<b>REVENUE REQUIREMENT FOR SCHEDULE 1A CHARGES</b>				
15	Total Load Dispatch & Scheduling (Account 561)	Line 75 Below			-
16	Less: Load Dispatch - Scheduling, System Control and Dispatch Services (321.88.b)				
17	Less: Load Dispatch - Reliability, Planning & Standards Development Services (321.92.b)				
18	Total 561 Internally Developed Costs	(Line 15 - Line 16 - Line 17)			-

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AEP East Companies  
 Transmission Cost of Service Formula Rate  
 Utilizing Actual/Projected FERC Form 1 Data  
 COMPANY NAME HERE

(1)	(2)	(3)	(4)	(5)
<u>RATE BASE CALCULATION</u>	<u>Data Sources</u> <u>(See "General Notes")</u>	<u>TO Total</u>	<u>Allocator</u>	<u>Total</u> <u>Transmission</u>
Line		<u>NOTE C</u>		
No.	GROSS PLANT IN SERVICE			
19	Production (Worksheet A In 14.(b))	-	NA	0.00000 -
20	Less: Production ARO (Enter Negative) (Worksheet A In 14.(c))	-	NA	0.00000 -
21	Transmission (Worksheet A In 14.(d) & TCOS Ln 134)	-	DA	-
22	Less: Transmission ARO (Enter Negative) (Worksheet A In 14.(e))	-	TP	0.00000 -
23	Distribution (Worksheet A In 14.(f))	-	NA	0.00000 -
24	Less: Distribution ARO (Enter Negative) (Worksheet A In 14.(g))	-	NA	0.00000 -
25	General Plant (Worksheet A In 14.(h))	-	W/S	0.00000 -
26	Less: General Plant ARO (Enter Negative) (Worksheet A In 14.(i))	-	W/S	0.00000 -
27	Intangible Plant (Worksheet A In 14.(j))	-	W/S	0.00000 -
28	TOTAL GROSS PLANT (sum lns 19 to 27)	-	<b>GP=</b>	<b>0.000000</b> -
			<b>GTD=</b>	<b>-</b>
29	ACCUMULATED DEPRECIATION AND AMORTIZATION			
30	Production (Worksheet A In 28.(b))	-	NA	0.00000 -
31	Less: Production ARO (Enter Negative) (Worksheet A In 28.(c))	-	NA	0.00000 -
32	Transmission (Worksheet A In 28.(d) & In 43.(c))	-	<b>TP1=</b>	<b>0.00000</b> -
33	Less: Transmission ARO (Enter Negative) (Worksheet A In 28.(e))	-	<b>TP1=</b>	<b>0.00000</b> -
34	Distribution (Worksheet A In 28.(f))	-	NA	0.00000 -
35	Less: Distribution ARO (Enter Negative) (Worksheet A In 28.(g))	-	NA	0.00000 -
36	General Plant (Worksheet A In 28.(h))	-	W/S	0.00000 -
37	Less: General Plant ARO (Enter Negative) (Worksheet A In 28.(i))	-	W/S	0.00000 -
38	Intangible Plant (Worksheet A In 28.(j))	-	W/S	0.00000 -
39	TOTAL ACCUMULATED DEPRECIATION (sum lns 30 to 38)	-		-
40	NET PLANT IN SERVICE			
41	Production (ln 19 + ln 20 - ln 30 - ln 31)	-		-
42	Transmission (ln 21 + ln 22 - ln 32 - ln 33)	-		-
43	Distribution (ln 23 + ln 24 - ln 34 - ln 35)	-		-
44	General Plant (ln 25 + ln 26 - ln 36 - ln 37)	-		-
45	Intangible Plant (ln 27 - ln 38)	-		-
46	TOTAL NET PLANT IN SERVICE (sum lns 41 to 45)	-	<b>NP=</b>	<b>0.000000</b> -
47	DEFERRED TAX ADJUSTMENTS TO RATE BASE (Note D)			
48	Account No. 281.1 (enter negative) (Worksheet B, ln 2 & ln 5.E)	-	NA	-
49	Account No. 282.1 (enter negative) (Worksheet B, ln 7 & ln 10.E)	-	DA	-
50	Account No. 283.1 (enter negative) (Worksheet B, ln 12 & ln 15.E)	-	DA	-
51	Account No. 190.1 (Worksheet B, ln 17 & ln 20.E)	-	DA	-
52	Account No. 255 (enter negative) (Worksheet B, ln 24 & ln 25.E)	-	DA	-
53	TOTAL ADJUSTMENTS (sum lns 48 to 52)	-		-
54	PLANT HELD FOR FUTURE USE (Worksheet A In ln 44.(e) & ln 45.(e))	-	DA	-
55	REGULATORY ASSETS (Worksheet A In 51.(e))	-	DA	-
56	UNFUNDED RESERVES (ENTER NEGATIVE) (NOTE Y) (Worksheet A In 54.(e))		W/S	-
57	WORKING CAPITAL (Note E)			
58	Cash Working Capital (1/8 * ln 78)	-		-
59	Transmission Materials & Supplies (Worksheet C, ln 2.(F))	-	TP	0.00000 -
60	A&G Materials & Supplies (Worksheet C, ln 3.(F))	-	W/S	0.00000 -
61	Stores Expense (Worksheet C, ln 4.(F))	-	GP	0.00000 -
62	Prepayments (Account 165) - Labor Allocated (Worksheet C, ln 8.G)	-	W/S	0.00000 -
63	Prepayments (Account 165) - Gross Plant (Worksheet C, ln 8.F)	-	GP	0.00000 -
64	Prepayments (Account 165) - Transmission Only (Worksheet C, ln 8.E)	-	DA	1.00000 -
65	Prepayments (Account 165) - Unallocable (Worksheet C, ln 8.D)	-	NA	0.00000 -
66	TOTAL WORKING CAPITAL (sum lns 58 to 65)	-		-
67	IPP CONTRIBUTIONS FOR CONSTRUCTION (Note F) (Worksheet D, ln 8.B)	-	DA	1.00000 -
68	RATE BASE (sum lns 46, 53, 54, 55, 56, 66, 67)	-		-



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AEP East Companies  
 Transmission Cost of Service Formula  
 Rate  
 Utilizing Actual/Projected FERC Form 1 Data  
 COMPANY NAME HERE

(1)	(2)	(3)	(4)	(5)
<u>EXPENSE, TAXES, RETURN &amp; REVENUE REQUIREMENTS CALCULATION</u>	<u>(See "General Notes")</u>	<u>Data Sources TO Total</u>	<u>Allocator</u>	<u>Total Transmission</u>
Line No.	OPERATION & MAINTENANCE EXPENSE			
69	Production 321.80.b			
70	Distribution 322.156.b			
	Customer Related			
71	Expense 322 & 323.164,171,178.b			
72	Regional Marketing Expenses 322.131.b			
73	Transmission 321.112.b			
	TOTAL O&M EXPENSES (sum lns 69 to 73)	-		
75	Less: Total Account 561 (Note G) (Worksheet F, ln 14.C)	-		
76	Less: Account 565 (Note H) 321.96.b			
	Less: Regulatory Deferrals & Amortizations (Note I) (Worksheet F, ln 4.C)	-		
78	Total O&M Allocable to Transmission (lns 73 - 75 - 76 - 77)	-	TP	0.00000 -
	Administrative and General 323.197.b (Notes J and M)			
80	Less: Acct. 924, Property Insurance 323.185.b			
	Acct. 9260039 PBOP Expense PBOP Worksheet O Line 9 & 10, (Note K)			
82	Acct. 9260057 PBOP Medicare Subsidy PBOP Worksheet O Line 11, (Note K)			
	PBOP Expense Billed From AEPC PBOP Worksheet O Line 13, (Note K)			
84	Acct. 928, Reg. Com. Exp. 323.189.b			
85	Acct. 930.1, Gen. Advert. Exp. 323.191.b			
86	Acct. 930.2, Misc. Gen. Exp. 323.192.b			
87	Balance of A & G (ln 79 - sum ln 80 to ln 86)	-	W/S	0.00000 -
88	Plus: Acct. 924, Property Insurance (ln 80)	-	GP	0.00000 -
89	Acct. 928 - Transmission Specific Worksheet F ln 20.(E) (Note L)	-	TP	0.00000 -
90	Acct 930.1 - Only safety related ads -Direct Worksheet F ln 37.(E) (Note L)	-	TP	0.00000 -
91	Acct 930.2 - Misc Gen. Exp. - Trans Worksheet F ln 43.(E) (Note L)	-	DA	1.00000 -
92	Settlement Approved PBOP Recovery PBOP Worksheet O, Col. C (Note M)			
93	A & G Subtotal (sum lns 87 to 92)	-		-
	O & M EXPENSE SUBTOTAL (ln 78 + ln 93)	-		-
95	Plus: Transmission Lease Payments To Affiliates in Acct 565 (Company Records) (Note H)		DA	1.00000 -
96	TOTAL O & M EXPENSE (ln 94 + ln 95)	-		-
	DEPRECIATION AND AMORTIZATION EXPENSE			
98	Production 336.2-6.f		NA	0.00000 -
99	Distribution 336.8.f		NA	0.00000 -
100	Transmission 336.7.f		TP1	0.00000 -
101	General 336.10.f		W/S	0.00000 -
102	Intangible 336.1.f		W/S	0.00000 -
103	TOTAL DEPRECIATION AND AMORTIZATION (Ln 98+99+100+101+102)	-		-
	TAXES OTHER THAN INCOME (Note N)			
105	Labor Related			
106	Payroll Worksheet H ln 24.(D)	-	W/S	0.00000 -
107	Plant Related			
108	Property Worksheet H-1 ln 3.(C) & 3.(G)	-	DA	0
109	Gross Receipts/Sales & Use Worksheet H ln 24.(F)	-	NA	0.00000 -
110	Other Worksheet H ln 24.(E)	-	GP	0.00000 -
111	TOTAL OTHER TAXES (sum lns 106 to 110)	-		-
112	INCOME TAXES (Note O)			
113	$T=1 - \{[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)\} =$	0.00%		
114	$EIT=(T/(1-T)) * (1-(WCLTD/WACC)) =$	0.00%		
115	where WCLTD=(ln 154) and WACC = (ln 157)			
116	and FIT, SIT & p are as given in Note O.			
117	$GRCF=1 / (1 - T) =$ (from ln 113)	-		

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118	Amortized Investment Tax Credit (enter negative)	(FF1 p.114, ln 19.c)	-			
119	Excess Deferred Income Tax	(Note U)	-	DA	1.00000	-
120	Tax Effect of Permanent and Flow-Through Differences	(Note U)	-	DA	1.00000	-
121	Income Tax Calculation	(ln 114 * ln 126)	-			-
122	ITC adjustment	(ln 117 * ln 118)	-	GP	0.00000	-
123	Excess Deferred Income Tax	(ln 117 * ln 119)	-			-
124	Tax Effect of Permanent and Flow-Through Differences	(ln 117 * ln 120)	-			-
125	TOTAL INCOME TAXES	(sum lns 121 to 124)	-			-
126	RETURN ON RATE BASE (Rate Base*WACC)	(ln 68 * ln 157)	-			-
127	INTEREST ON IPP CONTRIBUTION FOR CONST.	(Note F) (Worksheet D, ln 2.(B))	-	DA	1.00000	-
128	(Gains) / Losses on Sales of Plant Held for Future Use	(Worksheet N, ln 4, Cols. ((F) & (H))	-			-
129	Tax Impact on Net Loss / (Gain) on Sales of Plant Held for Future Use	(ln 128 * ln 114)	-			-
130	TOTAL REVENUE REQUIREMENT	(sum lns 96, 103, 111, 125, 126, 127, 128, 129)	-			-

AEP East Companies  
 Transmission Cost of Service Formula Rate  
 Utilizing Actual/Projected FERC Form 1 Data  
 COMPANY NAME HERE

**SUPPORTING CALCULATIONS**

ln	TRANSMISSION PLANT INCLUDED IN PJM TARIFF					
131	Total transmission plant	(ln 21)				-
132	Less transmission plant excluded from PJM Tariff	(Worksheet A, ln 42, Col. (d)) (Note P)				-
133	Less transmission plant included in OATT Ancillary Services	(Worksheet A, ln 42, Col. (b)) (Note Q)				-
134	Transmission plant included in PJM Tariff	(ln 131 - ln 132 - ln 133)				-
135	Percent of transmission plant in PJM Tariff	(ln 134 / ln 131)			<b>TP</b>	<b>= 0.00000</b>

WAGES & SALARY ALLOCATOR (W/S)	(Note R)	Direct Payroll	Payroll Billed from AEP Service Corp.	Total			
136	Production	354.20.b	-	-	NA	0.0000	0
137	Transmission	354.21.b	-	-	TP	0.0000	0
138	Regional Market Expenses	354.22.b	-	-	NA	0.0000	0
139	Distribution	354.23.b	-	-	NA	0.0000	0
140	Other (Excludes A&G)	354.24,25,26.b	-	-	NA	0.0000	0
141	Total	(sum lns 137 to 141)	0	0			0

143 Transmission related amount **W/S= 0.00000**

144	WEIGHTED AVERAGE COST OF CAPITAL (WACC)					\$
145	Long Term Interest	(Worksheet M, ln. 37, col. (d))				-
146	Preferred Dividends	(Worksheet M, ln. 71)				-
147	<u>Development of Common Stock:</u>					
148	Proprietary Capital	(Worksheet M, ln. 14, col. (b))				-
149	Less: Preferred Stock	(Worksheet M, ln. 14, col. (c))				-
150	Less: Account 216.1	(Worksheet M, ln. 14, col. (d))				-
151	Less: Account 219	(Worksheet M, ln. 14, col. (e))				-
152	Common Stock	(ln 148 - ln 149 - ln 150 - ln 151)				-

153			<b>Capital Structure Limit</b>	Cost		
	\$	Actual	Cap	(Note S)		Weighted

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		<u>Limit</u>				
154	Long Term Debt (Note T) Worksheet M, ln 28, col. (g), ln 38, col. (d))	-	0.00%	0.00%	-	0.0000
155	Preferred Stock (ln 149)	-	0.00%	0.00%	-	0.0000
156	Common Stock (ln 152)	-	0.00%	0.00%	10.35%	0.0000
157	Total (Sum lns 154 to 156)	-			<b>WACC=</b>	<b>0.0000</b>
158	Capital Structure Equity Limit (Note Z)		55%			

AEP East Companies  
 Transmission Cost of Service Formula Rate  
 Utilizing Actual/Projected FERC Form 1 Data  
 COMPANY NAME HERE

**Letter Notes**

General Notes: a) References to data from Worksheets are indicated as: Worksheet X, Line#.Column.X

- A Revenue credits include:
- 1) Forfeited Discounts.
  - 2) Miscellaneous Service Revenues.
  - 3) Rental revenues earned on assets included in the rate base.
  - 4) Revenues for associated business projects provided by employees whose labor and overhead costs are in the transmission cost of service.
  - 5) Other electric revenues.
  - 6) Revenues for grandfathered PTP contracts included in the load divisor.
  - 7) If AEP East companies have any directly assigned transmission facilities, the revenue credits in the AEP East formula rate shall include all revenues associated with those directly assigned transmission facilities, irrespective of whether the loads of the customer are included in the formula rate divisor; provided however, such addition to revenue credits shall not be reflected if the costs of such directly assigned transmission facilities are not included in the transmission plant balances on which the formula rate ATRR is based.
- See Worksheet E for details.
- B The annual and monthly net plant carrying charges on page 1 are used to compute the revenue requirement for RTEP sponsored upgrades or those projects receiving approved incentive-ROE's. Interest will be calculated based on Worksheet Q and any over under recovery will be filed and posted as part of the informational filing.
- C Transmission Plant Balances in this study are projected or actual average 13-month balances.
- D The total-company balances shown for Accounts 281, 282, 283, 190 only reflect ADIT that relates to utility operations. The balance of Account 255 is reduced by prior flow through and is completely excluded if the utility chose to utilize amortization of tax credits against FIT expense. An exception to this is pre-1971 ITC balances, which are required to be taken as an offset to rate base. Account 281 is not allocated. In compliance with FERC Rulemaking the calculation of ADIT in the annual projection will be performed in accordance with IRS regulation Section 1.167(I)-(h)(6)(ii). RM02-7-000, Asset Retirement Obligation deferrals have been removed from ratebase. Transmission ADIT allocations are shown on WS B. The company will not include the ADIT portion of deferred hedge gains and losses in rate base. Detailed balances for the projected or actual period, distinguished between utility and non-utility balances, will be filed and posted as part of the information filing.
- E Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission, as shown on line 78. It excludes:
- 1) Load Scheduling & Dispatch Charges in account 561 that are collected in the OATT Ancillary Services Revenue, as shown on line 75.
  - 2) Costs of Transmission of Electricity by Others, as described in Note H.
  - 3) The impact of state regulatory deferrals and amortizations, as shown on line 77
  - 4) All A&G Expenses, as shown on line 93.
- F Consistent with Paragraph 657 of Order 2003-A, the amount on line 67 is equal to the balance of IPP System Upgrade Credits owed to transmission customers that made contributions toward the construction of System upgrades, and includes accrued interest and unreturned balance of contributions. The annual interest expense is included on line 127.
- G Removes from the cost of service the Load Scheduling and Dispatch expenses booked to accounts 561.1 through 561.8. Expenses recorded in these accounts, with the exception of 561.4 & 561.8 (lines 16 & 17 above) are recovered in Schedule 1A, OATT ancillary services rates. See Worksheet F, lines 5 through 14, for descriptions and the Form 1 Source of these accounts' balances.
- H Removes cost of transmission service provided by others to determine the basis of cash working capital on line 78. To the extent such service is incurred to provide the PJM service at issue, e.g. lease payments to affiliates, such cost is added back on line 95 to determine the total O&M collected in the formula. The amount on line 95 is also excluded in the calculation of the FCR percentage calculated on lines 6 through 12. The addbacks on line 95 of activity recorded in 565 represents inter-company sales or purchases of transmission capacity necessary to meet each AEP company's transmission load relative to their available transmission capacity. The company records referenced on line 95 is the COMPANY NAME HERE general ledger.
- I Removes the impact of state regulatory deferrals or their amortization from Transmission O&M expense.
- J General Plant and Administrative & General expenses, other than in accounts 924, 928, and 930, will be functionalized based on the Wages & Salaries "W/S" allocator. The allocation basis for accounts 924, 928 and 930 are separately presented in the formula. A change in the allocation method for an account must be approved via a 205 filing with the FERC.
- K These deductions on lines 81 through 83 are to remove from the cost of service the expenses recorded by the company for Postemployment Benefits Other than Pensions (PBOP). See Note M below for the recoverable PBOP expense.
- L Expenses recorded in FERC Accounts 928 (Regulatory Commission Expense), 930.1 (Safety Related Advertising) and 930.2 (Miscellaneous General Expenses) that are not directly related to or properly allocable to transmission service will be removed from the TCOS. If AEP includes any expenses booked to these accounts in future ATRR updates, AEP must provide supporting information demonstrating that the underlying activities are directly related to providing transmission service. Account 930.2 includes the expenses incurred by the transmission function for Associated Business Development revenues given as a credit to the TCOS on Worksheet E.
- M See note K above. Per the settlement in Docket ER08-1329, recoverable PBOP expense is based on an annual total for the operating companies that is ratioed to them based on the total of actual annual PBOP costs, including charges from the AEP Service Corporation. The calculation of the recoverable amount for each company is shown on Worksheet O.
- N Includes only FICA, unemployment, highway, property and other assessments charged in the current year. Gross receipts, sales & use and taxes related to income are excluded.
- O The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = the percentage of federal income tax deductible for state income taxes. See Worksheet G for the development of the Company's composite SIT. A utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f).  
 (ln 118) multiplied by (1/1-T). If the applicable tax rates are zero enter 0.
- Inputs Required:
- |       |       |   |
|-------|-------|---|
| FIT = | 0.00% |   |
| SIT = | 0.00% | (State Income Tax Rate or Composite SIT. Worksheet G)         |
| p =   | 0.00% | (percent of federal income tax deductible for state purposes) |
- The formula rate shall reflect the applicable state and federal statutory tax rates in effect during the period the calculated estimated unit charges are applicable. If the statutory tax rates change during such period, the effective tax rates used in the formula shall be weighted by the number of days the pre-change rate and post-change rate each is in effect.
- P Removes plant excluded from the OATT because it does not meet the PJM's definition of Transmission Facilities or is otherwise ineligible to be recovered under the OATT.
- Q Removes transmission plant (e.g. step-up transformers) included in the development of OATT ancillary service rates and not already removed for reasons indicated in Note P.
- R Includes functional wages & salaries billed by AEP Service Corporation for support of the operating company.
- S Long Term Debt cost rate = long-term interest (ln 145) / average long term debt (ln 154). Preferred Stock cost rate = preferred dividends (ln 146) / preferred outstanding (ln 155). Common Stock cost rate (ROE) = 10.35%, per the settlement in FERC Docket No. EL17-13. It includes an additional 50 basis points for PJM RTO membership. The amount of eligible hedging gains or losses included in total interest expense is limited to five basis points of the capital structure. Details and calculations of the weighted average cost of capital are shown on Worksheet M. Eligible Hedging Gains and Losses are computed on Worksheet M. The unamortized balance of eligible hedge gains/losses and related ADIT amounts shall not flow through the formula rate.
- T The Long Term Debt balance for I&M includes the accumulated balance of principle and related interest for Spent Nuclear Fuel Disposal Costs collected prior to April 7, 1983. This total balance of \_\_\_\_\_ at 12/31/\_\_\_ is not included in the balance in line 154 above. The cost rates for long-term debt shall include interest expense and related periodic expenses (such as remarketing and letter of credit fees) as recorded in FERC Account 427 or 430, amortization of issuance costs (including insurance) and discounts as recorded in FERC Account 428, issuance premiums as recorded in FERC Account 429 and losses or gains on reacquired debt as recorded in FERC Accounts 428.1 or

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429.1, respectively. The cost rates for preferred stock (if applicable) shall include the dividends.

- U Excess / (Deficit) Deferred Income Taxes will be amortized over the average remaining life of the assets to which it relates, unless the Commission requires a different amortization period. The Tax Effect of Permanent Differences captures the differences in the income taxes due under the Federal and State tax calculations that are not the result of a timing difference, including but not limited to depreciation related to capitalized AFUDC equity and meals and entertainment deductions. The Tax Effect of Flow-Through differences captures current tax expense related to timing differences on items for which tax deductions were used to reduce customer rates through the use of flow-through accounting in a prior period. Transmission balances for the projected or actual period, will be filed and posted as part of the informational filing.
- V Cash investment in prepaid pension and benefits recorded in FERC Account 165 is permitted to be included in the formula. A labor expense allocation factor will be used to allocate total company costs. All other prepayments recorded in FERC Account 165 are directly assigned to the transmission function, allocated or excludable balances detailed on Worksheet C.
- W The formula rate shall allocate property tax expense based on the as filed net plant cost allocation method detailed on Worksheet H.
- X Under Section 30.9 of the PJM OATT, a network customer that owns existing transmission facilities that are integrated with the Transmission Provider's Transmission System may be eligible to receive consideration either through a billing credit or some other mechanism. Calculation of any credit under this subsection, pursuant to approval by FERC for inclusion in this formula rate for collection on behalf of the network customer, shall be addressed in either the Network Customer's Service Agreement or any other agreement between the parties.
- Y The cost of service will make a rate base adjustment to remove unfunded reserves associated with contingent liabilities recorded to Accounts 228.1-228.4 from rate base.
- Z Per the settlement in EL17-13, equity is limited to 55% of the Company's capital structure. If the percentage of actual equity exceeds the cap, the excess is included as long term debt in the capital structure.

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AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet A Rate Base  
 Company Name Here

Line No	Month	Gross Plant In Service								
		Production	Production ARO	Transmission	Transmission ARO	Distribution	Distribution ARO	General	General ARO	Intangible
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	(Note A)	FF1, page 205 Col.(g) & pg. 204 Col. (b), ln 46	FF1, page 205&204, Col.(g)&(b), Ins 15,24,34,44	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 58	Acct. 359.1 FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 57	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 75	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 74	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 99	Acct. 399.1 FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 98	FF1, page 205 Col.(g) & pg. 204 Col. (b), ln 5
1	December Prior to Rate Year									
2	January									
3	February									
4	March									
5	April									
6	May									
7	June									
8	July									
9	August									
10	September									
11	October									
12	November									
13	December of Rate Year									
14	Average of the 13 Monthly Balances	-	-	-	-	-	-	-	-	-

Line No	Month	Accumulated Depreciation								
		Production	Production ARO	Transmission	Transmission ARO	Distribution	Distribution ARO	General	General ARO	Intangible
	(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)
	(Note A)	FF1, page 219, Ins 20-24, Col. (b)	Company Records (Included in total in Column (b))	FF1, page 219, ln 25, Col. (b)	Company Records (Included in total in Column (d))	FF1, page 219, ln 26, Col. (b)	Company Records (Included in total in Column (f))	FF1, page 219, ln 28, Col. (b)	Company Records (Included in total in Column (h))	FF1, page 200, ln 21, Col. (b)
15	December Prior to Rate Year									
16	January									
17	February									
18	March									
19	April									
20	May									
21	June									
22	July									
23	August									
24	September									
25	October									
26	November									
27	December of Rate Year									
28	Average of the 13 Monthly Balances	-	-	-	-	-	-	-	-	-

Line No	Month	OATT Ancillary Services (GSU) Plant In Service	OATT Ancillary Services (GSU) Accumulated Depreciation	Excluded Plant - Plant In Service	Excluded Plant - Accumulated Depreciation
		(b)	(c)	(d)	(e)
	(Note A)	Company Records (included in total in column (d) of gross plant above)	Company Records (included in total in column (b) of accumulated depreciation above)	Company Records	Company Records
29	December Prior to Rate Year				
30	January				
31	February				
32	March				
33	April				
34	May				
35	June				
36	July				
37	August				
38	September				
39	October				
40	November				
41	December of Rate Year				

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42	Average of the 13 Monthly Balances	-	-	-	-
----	------------------------------------	---	---	---	---

43 Transmission Accum Depreciation net of GSU -

<u>Plant Held For Future Use</u>	<u>Source of Data</u>	<u>Balance @ December 31, 2017</u>	<u>Balance @ December 31, 2016</u>	<u>Average Balance for 2017</u>
(a)	(b)	(c)	(d)	(e)
44 <u>Plant Held For Future Use</u>	FF1, page 214, ln 47, Col. (d)			-
45 <u>Transmission Plant Held For Future Use (Included in total on line 44)</u>	Company Records - Note 1			-

**Regulatory Assets and Liabilities Approved for Recovery In Ratebase**

Note: Regulatory Assets & Liabilities can only be included in ratebase pursuant to a 205 filing with the FERC.

46				-
47				-
48				-
49				-
50				-
51	Total Regulatory Deferrals Included in Ratebase	-	-	-

**Unfunded Reserves Summary (Company Records)**

<u>Description</u>	<u>Account</u>			
52				-
53a				-
53b				-
54	Total	-	-	-

NOTE 1: On this worksheet, "Company Records" refers to AEP's property accounting ledger.  
 NOTE 2: The ratebase should not include the unamortized balance of hedging gains or losses.

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AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet B Supporting ADIT and ITC Balances  
 COMPANY NAME HERE

<u>Line</u> <u>Number</u>	<u>(A)</u> <u>Description</u>	<u>(B)</u> <u>Source</u>	<u>(C)</u> <u>Balance @</u> <u>December 31, Rate</u> <u>Year</u>	<u>(D)</u> <u>Balance @</u> <u>December 31, Rate</u> <u>Year-1</u>	<u>(E)</u> <u>Average Balance for</u> <u>Rate Year</u>
1	<b><u>Account 281</u></b>				
2	Year End Utility Deferrals	FF1, p. 272 - 273, ln 8, Col. (k)			-
3	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 4 (Note 1)			-
4	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 3 (Note 1)			-
5	Transmission Related Deferrals	Ln 2 - ln 3 - ln 4	-	-	-
6	<b><u>Account 282</u></b>				
7	Year End Utility Deferrals	FF1, p. 274 - 275, ln 5, Col. (k)			-
8	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 7 (Note 1)			-
9	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 6 (Note 1)			-
10	Transmission Related Deferrals	Ln 7 - ln 8 - ln 9	-	-	-
11	<b><u>Account 283</u></b>				
12	Year End Utility Deferrals	FF1, p. 276 - 277, ln 9, Col. (k)			-
13	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 13 (Note 1)			-
14	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 12 (Note 1)			-
15	Transmission Related Deferrals	Ln 12 - ln 13 - ln 14	-	-	-
16	<b><u>Account 190</u></b>				
17	Year End Utility Deferrals	FF1, p. 234, ln 8, Col. (c)			-
18	Less: ARO Related Deferrals	WS B-2 - Actual Stmt. AG Ln. 4 (Note 1)			-
19	Less: Other Excluded Deferrals	WS B-2 - Actual Stmt. AG Ln. 3 (Note 1)			-
20	Transmission Related Deferrals	Ln 17 - ln 18 - ln 19	-	-	-
21	<b><u>Account 255</u></b>				
22	Year End ITC Balances	FF1, p. 266-267, ln 8, Col. (h)			-
23	Less: Balances Not Qualified for Ratebase	Company Records - Note 1			-
24	ITC Balances Includeable Ratebase	Ln 22 - ln 23	-	-	-
25	Transmission Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 20 (Note 1)			-

On this worksheet, "Company Records" refers to AEP's tax forecast and accounting ledger. The PTRR will use projected ending balances and reflect proration required by IRS Letter Rule Section 1.167(I)-I(h)(6)(ii). Line item detail of actual deferred tax items will be included on Worksheets B-1 and B-2.

NOTE 1

NOTE 2

ADIT balances should exclude balances related to hedging activity.



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**Company Name Here**  
**SPECIFIED DEFERRED CREDITS -**  
**Actual Cycle Only**  
**PERIOD ENDED DECEMBER 31, 2017**

COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	(DEBIT) CREDIT	COLUMN G	COLUMN H	COLUMN I	COLUMN J	COLUMN K	COLUMN L	COLUMN M	COLUMN N	COLUMN O
	PER BOOKS		NON- APPLICABLE/NON- UTILITY		AVERAGE ELECTRIC UTILITY (B+C+D+E) /2	FUNCTIONALIZATION AVERAGE			FUNCTIONALIZATION 12/31/2016			FUNCTIONALIZATION 12/31/2017		
	BALANC E AS OF 12-31- 2016	BALANC E AS OF 12-31- 2017	BALANCE AS OF 12-31- 2016	BALANCE AS OF 12-31- 2017		GENERA TION	TRANSMI SSION	DISTRIBU TION	GENERA TION	TRANSMI SSION	DISTRIBU TION	GENERA TION	TRANSMI SSION	DISTRIBU TION
	ACCUMULATED DEFERRED FIT ITEMS													
1.0 0	ACCOUNT 281:													
2.0 1														
2.0 2	0	0			0	0	0	0						
2.0 3														
2.0 4	0	0	0	0	0									
2.0 5	0	0	0	0	0									
2.0 6	0	0	0	0	0									
3	TOTAL ACCOUNT 281													
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5	ACCOUNT 282:													
5.0 1	0	0			0	0	0	0						
5.0 2	0	0			0	0	0	0						

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5.0 3	0	0	0	0	0	0	0		
5.0 4	0	0	0	0	0	0	0		
5.0 5	0	0	0	0	0	0	0		
5.0 6	0	0	0	0	0	0	0		
5.0 7	0	0	0	0	0	0	0		
5.0 8	0	0	0	0	0	0	0		
5.0 9	0	0	0	0	0	0	0		
5.1 0	0	0	0	0	0	0	0		
5.1 1	0	0	0	0	0	0	0		
5.1 2	0	0	0	0	0	0	0		
5.1 3	0	0	0	0	0	0	0		
5.1 4	0	0	0	0	0	0	0		
5.1 5	0	0	0	0	0	0	0		
5.1 6	0	0	0	0	0	0	0		
5.1 7	0	0	0	0	0	0	0		
5.1 8	0	0	0	0	0	0	0		
5.1 9	0	0	0	0	0	0	0		
5.2 0	0	0	0	0	0	0	0		
5.2	0	0	0	0	0	0	0		

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1										
5.2										
2	0	0		0	0	0	0			
5.2										
3	0	0		0	0	0	0			
5.2										
4	0	0		0	0	0	0			
5.2										
5	0	0		0	0	0	0			
5.2										
6	0	0		0	0	0	0			
5.2										
7	0	0		0	0	0	0			
5.2										
8	0	0		0	0	0	0			
5.2										
9	0	0		0	0	0	0			
5.3										
0	0	0		0	0	0	0			
5.3										
1	0	0		0	0	0	0			
5.3										
2	0	0		0	0	0	0			
5.3										
3	0	0		0	0	0	0			
5.3										
4	0	0		0	0	0	0			
5.3										
5	0	0		0	0	0	0			
5.3										
6	0	0		0	0	0	0			
5.3										
7	0	0		0	0	0	0			
5.3										
8	0	0		0	0	0	0			
5.3										
9			0	0	0					
			0	0	0					

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5.4														
0														
5.4														
1			0	0	0									
6	TOTAL ACOUNT 282	0	0	0	0	0	0	0	0	0	0	0	0	0
7	ACCOUNT 282 - ARO-Related Deferrals	0	0	0	0	0	0	0	0	0	0	0	0	0
8	ACCOUNT 283:													
9.0		0	0			0	0	0	0					
1														
9.0		0	0			0	0	0	0					
2														
9.0		0	0			0	0	0	0					
3														
9.0		0	0			0	0	0	0					
4														
9.0		0	0			0	0	0	0					
5														
9.0		0	0			0	0	0	0					
6														
9.0		0	0			0	0	0	0					
7														
9.0		0	0			0	0	0	0					
8														
9.0		0	0			0	0	0	0					
9														
9.1		0	0			0	0	0	0					
0														
9.1		0	0			0	0	0	0					
1														
9.1		0	0			0	0	0	0					
2														
9.1		0	0			0	0	0	0					
3														
9.1		0	0			0	0	0	0					
4														

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9.1 5									
9.1 6	0	0	0	0	0	0	0		
9.1 7	0	0	0	0	0	0	0		
9.1 8	0	0	0	0	0	0	0		
9.1 9	0	0	0	0	0	0	0		
9.2 0	0	0	0	0	0	0	0		
9.2 1	0	0	0	0	0	0	0		
9.2 2	0	0	0	0	0	0	0		
9.2 3	0	0	0	0	0	0	0		
9.2 4	0	0	0	0	0	0	0		
9.2 5	0	0	0	0	0	0	0		
9.2 6	0	0	0	0	0	0	0		
9.2 7	0	0	0	0	0	0	0		
9.2 8	0	0	0	0	0	0	0		
9.2 9	0	0	0	0	0	0	0		
9.3 0	0	0	0	0	0	0	0		
9.3 1	0	0	0	0	0	0	0		
9.3 2	0	0	0	0	0	0	0		
9.3 3	0	0	0	0	0	0	0		

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9.3 4	0	0	0	0	0	0	0		
9.3 5	0	0	0	0	0	0	0		
9.3 6	0	0	0	0	0	0	0		
9.3 7	0	0	0	0	0	0	0		
9.3 8	0	0	0	0	0	0	0		
9.3 9	0	0	0	0	0	0	0		
9.4 0	0	0	0	0	0	0	0		
9.4 1	0	0	0	0	0	0	0		
9.4 2	0	0	0	0	0	0	0		
9.4 3	0	0	0	0	0	0	0		
9.4 4	0	0	0	0	0	0	0		
9.4 5	0	0	0	0	0	0	0		
9.4 6	0	0	0	0	0	0	0		
9.4 7	0	0	0	0	0	0	0		
9.4 8	0	0	0	0	0	0	0		
9.4 9	0	0	0	0	0	0	0		
9.5 0	0	0	0	0	0	0	0		
9.5 1	0	0	0	0	0	0	0		
9.5	0	0	0	0	0	0	0		

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

2									
9.5									
3	0	0	0	0	0	0	0		
9.5									
4	0	0	0	0	0	0	0		
9.5									
5	0	0	0	0	0	0	0		
9.5									
6	0	0	0	0	0	0	0		
9.5									
7	0	0	0	0	0	0	0		
9.5									
8	0	0	0	0	0	0	0		
9.5									
9	0	0	0	0	0	0	0		
9.6									
0	0	0	0	0	0	0	0		
9.6									
1	0	0	0	0	0	0	0		
9.6									
2	0	0	0	0	0	0	0		
9.6									
3	0	0	0	0	0	0	0		
9.6									
4	0	0	0	0	0	0	0		
9.6									
5	0	0	0	0	0	0	0		
9.6									
6	0	0	0	0	0	0	0		
9.6									
7	0	0	0	0	0	0	0		
9.6									
8	0	0	0	0	0	0	0		
9.6									
9	0	0	0	0	0	0	0		
9.7									
0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0		

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

9.7 1								
9.7 2	0	0	0	0	0	0	0	
9.7 3	0	0	0	0	0	0	0	
9.7 4	0	0	0	0	0	0	0	
9.7 5	0	0	0	0	0	0	0	
9.7 6	0	0	0	0	0	0	0	
9.7 7	0	0	0	0	0	0	0	
9.7 8	0	0	0	0	0	0	0	
9.7 9	0	0	0	0	0	0	0	
9.8 0	0	0	0	0	0	0	0	
9.8 1	0	0	0	0	0	0	0	
9.8 2	0	0	0	0	0	0	0	
9.8 3	0	0	0	0	0	0	0	
9.8 4	0	0	0	0	0	0	0	
9.8 5	0	0	0	0	0	0	0	
9.8 6	0	0	0	0	0	0	0	
9.8 7	0	0	0	0	0	0	0	
9.8 8	0	0	0	0	0	0	0	
9.8 9	0	0	0	0	0	0	0	



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

9.9												
0		0	0			0	0	0	0			
9.9												
1		0	0			0	0	0	0			
9.9												
2		0	0			0	0	0	0			
9.9												
3		0	0			0	0	0	0			
9.9												
4				0	0	0						
9.9												
5				0	0	0						
9.9												
6				0	0	0						
9.9												
7				0	0	0						
9.9												
8				0	0	0						
9.9												
9				0	0	0						
10		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
11	DEFD STATE INCOME TAXES	0	0			0	0	0	0			
11.01				0	0	0						
12	TOTAL ACCOUNT 283	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
13	ACCOUNT 283 - ARO-Related Deferrals	0	0	0	0	0	0	0	0	0	0	0
14	JURISDICTIONAL AMOUNTS FUNCTIONALIZED											
15	TOTAL COMPANY AMOUNTS FUNCTIONALIZED											
16	REFUNCTIONALIZED BASED ON JURISDICTIONAL PLANT											
17	NOTE: POST 1970 ACCUMULATED DEFERRED											

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

18 255		INV TAX CRED. (JDITC) IN A/C											
18.01		0	0			0	0	0	0				
18.02		0	0			0	0	0	0				
19		<hr/>											
20	TOTAL ACCOUNT 255	0	0	0	0	0	0	0	0	0	0	0	0

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

**Company Name Here**  
**ACCUMULATED DEFERRED INCOME TAX IN ACCOUNT**  
**190 - Actual Cycle Only**  
**PERIOD ENDED DECEMBER**  
**31, 2017**

COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	DEBIT (CREDIT)	COLUMN G	COLUMN H	COLUMN I	COLUMN J	COLUMN K	COLUMN L	COLUMN M	COLUMN N	COLUMN O
ACCUMULATED DEFERRED FIT ITEMS	PER BOOKS		NON- APPLICABLE/NON- UTILITY		AVERAGE ELECTRIC UTILITY (B+C+D+E)/ 2	FUNCTIONALIZATION AVERAGE			FUNCTIONALIZATION 12/31/2016			FUNCTIONALIZATION 12/31/2017		
	BALANCE AS OF 12-31- 2016	BALANCE AS OF 12-31- 2017	BALANCE AS OF 12-31- 2016	BALANCE AS OF 12-31- 2017		GENERA TION	TRANSMIS SION	DISTRIBU TION	GENERA TION	TRANSMIS SION	DISTRIBU TION	GENERA TION	TRANSMIS SION	DISTRIBU TION
1 ACCOUNT 190:														
2.0 1	0	0			0	0	0	0						
2.0 2	0	0			0	0	0	0						
2.0 3	0	0			0	0	0	0						
2.0 4	0	0			0	0	0	0						
2.0 5	0	0			0	0	0	0						
2.0 6	0	0			0	0	0	0						
2.0 7	0	0			0	0	0	0						
2.0 8	0	0			0	0	0	0						
2.0 9	0	0			0	0	0	0						
2.1 0	0	0			0	0	0	0						
	0	0			0	0	0	0						

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

2.1 1									
2.1 2	0	0	0	0	0	0	0		
2.1 3	0	0	0	0	0	0	0		
2.1 4	0	0	0	0	0	0	0		
2.1 5	0	0	0	0	0	0	0		
2.1 6	0	0	0	0	0	0	0		
2.1 7	0	0	0	0	0	0	0		
2.1 8	0	0	0	0	0	0	0		
2.1 9	0	0	0	0	0	0	0		
2.2 0	0	0	0	0	0	0	0		
2.2 1	0	0	0	0	0	0	0		
2.2 2	0	0	0	0	0	0	0		
2.2 3	0	0	0	0	0	0	0		
2.2 4	0	0	0	0	0	0	0		
2.2 5	0	0	0	0	0	0	0		
2.2 6	0	0	0	0	0	0	0		
2.2 7	0	0	0	0	0	0	0		
2.2 8	0	0	0	0	0	0	0		
2.2 9	0	0	0	0	0	0	0		

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

2.3 0	0	0	0	0	0	0	0		
2.3 1	0	0	0	0	0	0	0		
2.3 2	0	0	0	0	0	0	0		
2.3 3	0	0	0	0	0	0	0		
2.3 4	0	0	0	0	0	0	0		
2.3 5	0	0	0	0	0	0	0		
2.3 6	0	0	0	0	0	0	0		
2.3 7	0	0	0	0	0	0	0		
2.3 8	0	0	0	0	0	0	0		
2.3 9	0	0	0	0	0	0	0		
2.4 0	0	0	0	0	0	0	0		
2.4 1	0	0	0	0	0	0	0		
2.4 2	0	0	0	0	0	0	0		
2.4 3	0	0	0	0	0	0	0		
2.4 4	0	0	0	0	0	0	0		
2.4 5	0	0	0	0	0	0	0		
2.4 6	0	0	0	0	0	0	0		
2.4 7	0	0	0	0	0	0	0		
2.4	0	0	0	0	0	0	0		

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

8									
2.4									
9	0	0	0	0	0	0	0		
2.5									
0	0	0	0	0	0	0	0		
2.5									
1	0	0	0	0	0	0	0		
2.5									
2	0	0	0	0	0	0	0		
2.5									
3	0	0	0	0	0	0	0		
2.5									
4	0	0	0	0	0	0	0		
2.5									
5	0	0	0	0	0	0	0		
2.5									
6	0	0	0	0	0	0	0		
2.5									
7	0	0	0	0	0	0	0		
2.5									
8	0	0	0	0	0	0	0		
2.5									
9	0	0	0	0	0	0	0		
2.6									
0	0	0	0	0	0	0	0		
2.6									
1	0	0	0	0	0	0	0		
2.6									
2	0	0	0	0	0	0	0		
2.6									
3	0	0	0	0	0	0	0		
2.6									
4	0	0	0	0	0	0	0		
2.6									
5	0	0	0	0	0	0	0		
2.6									
6	0	0	0	0	0	0	0		
	0	0	0	0	0	0	0		

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

2.6 7										
2.6 8	0	0		0	0	0	0			
2.6 9	0	0		0	0	0	0			
2.7 0	0	0		0	0	0	0			
2.7 1	0	0		0	0	0	0			
2.7 2	0	0		0	0	0	0			
2.7 3	0	0		0	0	0	0			
2.7 4	0	0		0	0	0	0			
2.7 5	0	0		0	0	0	0			
2.7 6	0	0		0	0	0	0			
2.7 7	0	0		0	0	0	0			
2.7 8	0	0		0	0	0	0			
2.7 9	0	0		0	0	0	0			
2.8 0			0	0	0					
2.8 1			0	0	0					
2.8 2			0	0	0					
2.8 3			0	0	0					
2.8 4			0	0	0					
2.8 5			0	0	0					

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

2.8 6			0	0	0								
2.8 7			0	0	0								
2.8 8			0	0	0								
2.8 9			0	0	0								
2.9 0			0	0	0	0	0	0					
2.9 1		0	0		0	0	0	0					
3	TOTAL ACCOUNT 190		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
4	ACCOUNT 190 - ARO-Related Deferrals		0	0	0	0	0	0	0	0	0	0	0



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet C Supporting Working Capital Rate Base Adjustments  
 COMPANY NAME HERE

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
<u>Line Number</u>		<u>Source</u>	<u>Materials &amp; Supplies</u>	<u>Balance @ December 31, Rate Year</u>	<u>Balance @ December 31, Rate Year-1</u>		<u>Average Balance for Rate Year</u>		
1									
2	Transmission Materials & Supplies	FF1, p. 227, ln 8, Col. (c) & (b)			-				
3	General Materials & Supplies	FF1, p. 227, ln 11, Col. (c) & (b)			-				
4	Stores Expense (Undistributed) - Account 163	FF1, p. 227, ln 16, Col. (c) & (b)			-				
<b>Prepayment Balance Summary (Note 1)</b>									
		<u>Average of YE Balance</u>	<u>Excludable Balances</u>	<u>100% Transmission Related</u>	<u>Transmission Plant Related</u>	<u>Transmission Labor Related</u>	<u>Total Included in Ratebase (E)+(F)+(G)</u>		
5									
6	Totals as of December 31, Rate Year	0	0	0	0	0	0	0	
7	Totals as of December 31, Rate Year-1								
8	<b>Average Balance</b>	-	-	-	-	-	-	-	
<b>Prepayments Account 165 - Balance @ 12/31/Rate Year</b>									
	<u>Acc. No.</u>	<u>Description</u>	<u>Rate Year YE Balance</u>	<u>Excludable Balances</u>	<u>100% Transmission Related</u>	<u>Transmission Plant Related</u>	<u>Transmission Labor Related</u>	<u>Total Included in Ratebase (E)+(F)+(G)</u>	<u>Explanation</u>
9									
10				-		-		-	
11				-		-		-	
12				-			-	-	
13				-				-	
14				-			-	-	
15				-				-	
16				-				-	
17				-			-	-	
18				-				-	
19				-			-	-	
	<b>Subtotal - Form 1, p 111.57.c</b>		0	0	0	0	0	0	
<b>Prepayments Account 165 - Balance @ 12/31/ Rate Year-1</b>									
	<u>Acc. No.</u>	<u>Description</u>	<u>Rate Year-1 YE Balance</u>	<u>Excludable Balances</u>	<u>100% Transmission Related</u>	<u>Transmission Plant Related</u>	<u>Transmission Labor Related</u>	<u>Total Included in Ratebase (E)+(F)+(G)</u>	<u>Explanation</u>
20									
21						0		-	
22						0		-	
23						0		-	
24						0		-	
25				0				-	
26				0				-	
27				0				-	
28				0				-	
29							0	-	
30				0				-	
31				0				-	
	<b>Subtotal - Form 1, p 111.57.c</b>								

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

Prepayment Balance will not include: (i) federal and state income tax payments made to offset additional tax liabilities resulting (or expected to result) from prior federal or state audits or from the filing of one or more amended income tax returns; (ii) outstanding income tax refunds due to the company resulting (or expected to result) from prior federal or state audits or from the filing of one or more amended income tax returns; or (iii) prepayments of federal or state

Note 1: income taxes which are attributable to income earned during periods prior to January 1 of the year depicted in the Balance Sheet (as described in USofA Account 236).

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I  
 - AEP East Companies

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet D Supporting IPP Credits  
 COMPANY NAME HERE

<u>Line</u> <u>Number</u>	<u>(A)</u> <u>Description</u>	<u>(B)</u> <u>Rate Year</u>
1	Net Funds from IPP Customers 12/31/Rate Year-1 (Rate Year FORM 1, P269)	
2	Interest Accrual (Company Records - Note 1)	
3	Revenue Credits to Generators (Company Records - Note 1)	
4	<u>Other Adjustments</u>	
5	Accounting Adjustment (Company Records - Note 1)	
6		
7	Net Funds from IPP Customers 12/31/Rate Year (Rate Year FORM 1, P269)	-
8	Average Balance for Year as Indicated in Column B ((ln 1 + ln 7)/2)	-

Note 1 On this worksheet Company Records refers to COMPANY NAME HERE's general ledger.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I - AEP East Companies

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet E Supporting Revenue Credits  
 COMPANY NAME HERE

<u>Line</u> <u>Number</u>	<u>Description</u>	<u>(a)</u> <u>Total</u> <u>Company</u>	<u>(b)</u> <u>Non-</u> <u>Transmission</u>	<u>(c)</u> <u>Transmission</u>
1	Account 450, Forfeited Discounts (FF1 p.300.16.(b); Company Records - Note 1)	-	-	-
2	Account 451, Miscellaneous Service Revenues (FF1 p.300.17.(b); Company Records - Note 1)	-	-	-
3	Account 454, Rent from Electric Property (FF1 p.300.19.(b); Company Records - Note 1)	-	-	-
4	Account 4560015, Associated Business Development - (Company Records - Notes 1, 2)	-	-	-
5	Account 456 - Other Electric Revenues - (Company Records - Notes 1, 2)	-	-	-
5a	Account 457.1, Regional Control Service Revenues (FF1 p.300.23.(b); Company Records - Note 1)	-	-	-
5b	Account 457.2, Miscellaneous Revenues (FF1 p.300.24.(b); Company Records - Note 1)	-	-	-
6	Subtotal - Other Operating Revenues (Company Total equals (FF1 p. 300.26.(b))	-	-	-
7	Accounts 4470004 & 4470005, Revenues from Grandfathered Transmission Contracts - (Company Records - Note 1)	-	-	-
8	Total Other Operating Revenues To Reduce Revenue Requirement	-	-	-
<b>Note 1</b>	The total company data on this worksheet comes from the indicated FF1 source, or COMPANY NAME HERE's general ledger. The functional amounts identified as transmission revenue also come from the general ledger.			
<b>Note 2</b>	The total of line 4 and line 5 will equal total Account 456 as listed on FF1 p.300.21-22.(b)			
9	Facility Credits under PJM OATT Section 30.9			

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part I  
 - AEP East Companies

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet F Supporting Allocation of Specific O&M or A&G Expenses  
 COMPANY NAME HERE

	(A)	(B)	(C)	(D)	(E)	(F)
					<u>100%</u>	
<u>Line</u>	<u>Item No.</u>	<u>Description</u>	<u>Rate Year</u>	<u>Expense</u>	<u>100%</u>	<u>Transmission</u>
<u>Number</u>					<u>Non-Transmission</u>	<u>Specific</u>
						<u>Explanation</u>
		<b><u>Regulatory O&amp;M Deferrals &amp; Amortizations</u></b>				
1				-		
2						
3						
4		<b>Total</b>		0		
		<b><u>Detail of Account 561 Per FERC Form 1</u></b>				
5						
6	FF1 p 321.85.b	561.1 - Load Dispatch - Reliability				
7	FF1 p 321.86.b	561.2 - Load Dispatch - Monitor & Operate Trans System				
8	FF1 p 321.87.b	561.3 - Load Dispatch - Trans Service & Scheduling				
9	FF1 p 321.88.b	561.4 - Scheduling, System Control & Dispatch				
10	FF1 p 321.89.b	561.5 - Reliability, Planning and Standards Development				
11	FF1 p 321.90.b	561.6 - Transmission Service Studies				
12	FF1 p 321.91.b	561.7 - Generation Interconnection Studies				
13	FF1 p 321.92.b	561.8 - Reliability, Planning and Standards Development Services				
14		<b>Total of Account 561</b>		0		
		<b><u>Account 928</u></b>				
15					-	-
16					-	-
17					-	-
18					-	-
19					-	-
20		<b>Total (FERC Form 1 p.323.189.b)</b>		-	-	-
		<b><u>Account 930.1</u></b>				
21					-	-
22					-	-
23					-	-
24					-	-
25					-	-
26					-	-
27					-	-
28					-	-
29					-	-
30					-	-
31					-	-
32					-	-
33					-	-
34					-	-
35					-	-
36					-	-
37		<b>Total (FERC Form 1 p.323.191.b)</b>		-	-	-
		<b><u>Account 930.2</u></b>				
38				0		
39				0		
40				0		
41				0		
42				0		
43		<b>Total (FERC Form 1 p.323.192.b)</b>		-	-	-

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet G Supporting - Development of Composite State Income Tax Rate  
 COMPANY NAME HERE

State #1 Tax Rate		
Apportionment Factor - Note 1		
Effective State Tax Rate		0.00%
State #2 Tax Rate		
Apportionment Factor - Note 1		
Effective State Tax Rate		0.00%
State #3 Tax Rate		
Apportionment Factor - Note 1		
Effective State Tax Rate		0.00%
State #4 Tax Rate		
Apportionment Factor - Note 1		
Effective State Tax Rate		0.00%
Total Effective State Income Tax Rate		0.00%

Note 1

Apportionment Factors are determined as part of the Company's annual tax return for that jurisdiction.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
 - AEP East Companies

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FFI Balances  
 Worksheet H Supporting Taxes Other than Income  
 COMPANY NAME HERE

Line No.	(A) Account	(B) Total Company	(C) Property	(D) Labor	(E) Other	(F) Non-Allocable
		NOTE 1				
1	<b>Revenue Taxes</b>					
2	List Individual Taxes Here	-				-
3	<b>Real Estate and Personal Property Taxes</b>					
4	Real and Personal Property - Jurisdiction #1	-	-			
5	Real and Personal Property - Jurisdiction #2	-	-			
6	Real and Personal Property - Jurisdiction #3	-	-			
7	Real and Personal Property - Other Jurisdictions	-	-			
8	<b>Payroll Taxes</b>					
9	Federal Insurance Contribution (FICA )	-		-		
10	Federal Unemployment Tax	-		-		
11	State Unemployment Insurance	-		-		
12	<b>Production Taxes</b>					
13	List Individual Taxes Here	-				-
14		-				-
15	<b>Miscellaneous Taxes</b>					
16	List Individual Taxes Here	-				-
17		-			-	
18		-			-	
19		-			-	
20		-			-	
21		-			-	
22		-			-	
23		-			-	
24	Total Taxes by Allocable Basis	-	-	-	-	-

(Total Company Amount Ties to FFI p.114, Ln 14,(c))

NOTE 1: The detail of each total company number and its source in the FERC Form 1 is shown on WS H-1.

**Functional Property Tax Allocation**

	Production	Transmission	Distribution	General	Total
25	Functionalized Net Plant (TCOS, Lns 41 thru 46)	-	-	-	-
	<b>STATE JURISDICTION #1</b>				
26	Percentage of Plant in STATE JURISDICTION #1				
27	Net Plant in STATE JURISDICTION #1 (Ln 25 * Ln 26)	-	-	-	-
28	Less: Net Value of Exempted Generation Plant				
29	Taxable Property Basis (Ln 27 - Ln 28)	-	-	-	-
30	Relative Valuation Factor				
31	Weighted Net Plant (Ln 29 * Ln 30)	-	-	-	-
32	General Plant Allocator (Ln 31 / (Total - General Plant))	0.00%	0.00%	0.00%	-100.00%
33	Functionalized General Plant (Ln 32 * General Plant)	-	-	-	-
34	Weighted STATE JURISDICTION #1 Plant (Ln 31 + 33)	-	-	-	-
35	Functional Percentage (Ln 34/Total Ln 34)	0.00%	0.00%	0.00%	
	<b>STATE JURISDICTION #2</b>				
36	Percentage of Plant in STATE JURISDICTION #2				
37	Net Plant in STATE JURISDICTION #2 (Ln 25 * Ln 36)	-	-	-	-
38	Less: Net Value of Exempted Generation Plant				
39	Taxable Property Basis (Ln 37 - Ln 38)	-	-	-	-
40	Relative Valuation Factor				
41	Weighted Net Plant (Ln 39 * Ln 40)	-	-	-	-
42	General Plant Allocator (Ln 41 / (Total - General Plant))	0.00%	0.00%	0.00%	-100.00%
43	Functionalized General Plant (Ln 42 * General Plant)	-	-	-	-
44	Weighted STATE JURISDICTION #2 Plant (Ln 41 + 43)	-	-	-	-
45	Functional Percentage (Ln 44/Total Ln 44)	0.00%	0.00%	0.00%	
	<b>STATE JURISDICTION #3</b>				
46	Net Plant in STATE JURISDICTION #3 (Ln 25 - Ln 27 - Ln 37)	-	-	-	-
47	Less: Net Value Exempted Generation Plant				
48	Taxable Property Basis	-	-	-	-
49	Relative Valuation Factor				
50	Weighted Net Plant (Ln 48 * Ln 49)	-	-	-	-
51	General Plant Allocator (Ln 50 / (Total - General Plant))	0.00%	0.00%	0.00%	-100.00%
52	Functionalized General Plant (Ln 52 * General Plant)	-	-	-	-
53	Weighted STATE JURISDICTION #3 Plant (Ln 50 + 52)	-	-	-	-
54	Functional Percentage (Ln 53/Total Ln 53)	0.00%	0.00%	0.00%	

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
 - AEP East Companies

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Cost of Service Formula Rate Using 2008 FF1 Balances

Worksheet H-1 Form 1 Source Reference of Company Amounts on WS H

	(A)	(B)	(C)	(D)
Li ne No	Annual Tax Expenses by Type (Note 1)	Total Company	FERC FORM 1 Tie-Back	FERC FORM 1 Reference

1	<b>Revenue Taxes</b>			
2	Revenue Tax 1	-		

	(A)	(B)	(C)	(D)	(E)	(F)	(G)
	Real Estate and Personal Property Tax Detail Annual Tax Expenses by Type (Note 1)	Tax Year	Total Company	FERC FORM 1 Tie-Back	FERC FORM 1 Reference	Tax Year Factor (Note 2)	Transmis sion Function (Note 2)

3	<b>Real Estate and Personal Property Taxes Total (Ln 4 + Ln 5 + Ln 6 + Ln 7)</b>		-				-
4	Real and Personal Property - Jurisdiction 1		-				-
5	Real and Personal Property – Jurisdiction 2						
6	Real and Personal Property – Jurisdiction 3						
7	Real and Personal Property - Other Jurisdictions		-				-

Li ne No	(A)	(B)	(C)	(D)
	Annual Tax Expense by Type (Note 1)	Total Company	FERC FORM 1 Tie-Back	FERC Form 1 Reference

8	<b>Payroll Taxes</b>			
9	Federal Insurance Contribution (FICA )	-		
10	Federal Unemployment Tax	-		
11	State Unemployment Insurance	-		
12	<b>Production Taxes</b>			
13	Production Tax 1	-		
15	<b>Miscellaneous Taxes</b>			
16	Miscellaneous Tax 1	-		
17	Miscellaneous Tax 2	-		
18	Miscellaneous Tax 3	-		
19	Miscellaneous Tax 4	-		
20	Miscellaneous Tax 5	-		
21	Miscellaneous Tax 6	-		



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
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22	Miscellaneous Tax 7	-			
23	Total Taxes by Allocable Basis	-			

(Total Company Amount Ties to FFI p.114, Ln 14,(c))

Note 1: The taxes assessed on each operating company can differ from year to year and between operating companies by both the type of taxes and the states in which they were assessed. Therefore, for each company, the types and jurisdictions of tax expense recorded on this page could differ from the same page in the same company's prior year template or from this page in other operating companies' current year templates. For each update, this sheet will be revised to ensure that the total activity recorded hereon equals the total reported in account 408.1 on P. 114, Ln 14 of the FERC Form 1.

Note 2: The transmission functional amounts for any Real Estate and Property taxes listed on pages 263 of the FERC Form 1 will be allocated using the transmission functional allocator calculated for each state in Worksheet H of the applicable year that the taxes were assessed. Real and Personal Property - Other Jurisdictions will be allocated using the Gross Plant Allocator from the applicable year.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
- AEP East Companies

**AEP East Companies**

**Cost of Service Formula Rate Using Actual/Projected FF1 Balances**

**Worksheet I**

**RESERVED FOR FUTURE USE**

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

AEP East Companies

Cost of Service Formula Rate Using Actual/Projected FF1 Balances

Worksheet J Supporting Calculation of PROJECTED PJM RTEP Project Revenue Requirement Billed to Benefiting Zones

COMPANY NAME HERE

**I. Calculate Return and Income Taxes with basis point ROE increase for Projects Qualified for Regional Billing.**

**A. Determine 'R' with hypothetical basis point increase in ROE for Identified Projects**

ROE w/o incentives (TCOS, ln 156)	0.00%
Project ROE Incentive Adder	0.00%
ROE with additional basis point incentive	0.00%

Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the TCOS, lns 154 through 156)

	%	Cost	Weighted cost
Long Term Debt	0.00%	0.00%	0.000%
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	0.00%	0.00%	0.000%
		R =	0.000%

SUMMARY OF PROJECTED ANNUAL RTEP REVENUE REQUIREMENTS			
	Rev Require	W Incentives	Incentive Amounts
PROJECTED YEAR	Projected Year	-	\$ -

**B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects.**

Rate Base (TCOS, ln 68)	-
R (from A. above)	0.000%
Return (Rate Base x R)	-

**C. Determine Income Taxes using Return with hypothetical basis point ROE increase for Identified Projects.**

Return (from B. above)	-
Effective Tax Rate (TCOS, ln 114)	0.00%
Income Tax Calculation (Return x CIT)	-
ITC Adjustment	-
Excess Deferred Income Tax	-
Tax Affect of Permanent Differences	-
Income Taxes	-

**II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical basis point ROE increase.**

**A. Determine Annual Revenue Requirement less return and Income Taxes.**

Annual Revenue Requirement (TCOS, ln 1)	-
Lease Payments (TCOS, 95)	-
Return (TCOS, ln 126)	-
Income Taxes (TCOS, ln 125)	=
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	-

**B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.**

Annual Revenue Requirement, Less Lease payments, Return and Taxes	-
Return (from I.B. above)	-
Income Taxes (from I.C. above)	=
Annual Revenue Requirement, with Basis Point ROE increase	-
Depreciation (TCOS, ln 100)	=
Annual Rev. Req. w/ Basis Point ROE increase, less Depreciation	-

**C. Determine FCR with hypothetical basis point ROE increase.**

Net Transmission Plant (TCOS, ln 42)	-
Annual Revenue Requirement, with Basis Point ROE increase	-
FCR with Basis Point increase in ROE	0.00%
Annual Rev. Req. w / Basis Point ROE increase, less Dep.	-
FCR with Basis Point ROE increase, less Depreciation	0.00%
FCR less Depreciation (TCOS, ln 10)	0.00%
Incremental FCR with Basis Point ROE increase, less Depreciation	0.00%

**III Calculation of Composite Depreciation Rate**

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

Average Transmission Plant Balance for Rate Year (TCOS, ln 21)	-	
Annual Depreciation and Amortization Expense (TCOS, ln 100)	-	
Composite Depreciation Rate	-	0.00%
Depreciable Life for Composite Depreciation Rate	-	
Round to nearest whole year	-	

**Worksheet J - ATRR PROJECTED Calculation for PJM Projects Charged to Benefiting Zones**

**IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.**

**A. Base Plan Facilities**

Facilities receiving incentives accepted by FERC in Docket No. [REDACTED] (e.g. ER05-925-000)

**Project Description:** [REDACTED]

Details						
Investment	Current Year			Projected Year		
Service Year (yyyy)	[REDACTED]	ROE increase accepted by FERC (Basis Points)			[REDACTED]	
Service Month (1-12)	[REDACTED]	FCR w/o incentives, less depreciation			0.00%	
Useful life	-	FCR w/incentives approved for these facilities, less dep.			0.00%	
CIAC (Yes or No)	[REDACTED]	Annual Depreciation Expense			-	
Investment	Beginning	Depreciation	Ending	RTEP Rev. Req't.	RTEP Rev. Req't.	Incentive Rev.
Year	Balance	Expense	Balance	w/o Incentives	with Incentives **	Requirement ##
-	-	-	-	-	-	\$ -
-	-	-	-	-	-	\$ -
Project Totals	-	-	-	-	-	-

Current Projected Year ARR	-
Current Projected Year ARR w/ Incentive	-
Current Projected Year Incentive ARR	-

**CUMULATIVE HISTORY OF PROJECTED ANNUAL REVENUE REQUIREMENTS:**

CUMULATIVE HISTORY OF PROJECTED ANNUAL REVENUE REQUIREMENTS: INPUT PROJECTED ARR (WITH & WITHOUT INCENTIVES) FROM EACH PRIOR YEAR TEMPLATE BELOW TO MAINTAIN HISTORY OF PROJECTED ARRS OVER THE LIFE OF THE PROJECT.

RTEP Projected Rev. Req't.From Prior Year Template		RTEP Projected Rev. Req't.From Prior Year Template with Incentives **		
w/o Incentives				
[REDACTED]		[REDACTED]		

\*\* This is the total amount that needs to be reported to PJM for billing to all regions.

## This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive return. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

In order to calculate the proper monthly RTEP billing amount, PJM requires a 12 month revenue requirement for each RTEP project. As a result, notwithstanding the fact that the project was in service for a partial year, the project revenue requirement in the year that the project goes into service has been annualized (shown at the full-year level) so that PJM will collect the correct monthly billings.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet K Supporting Calculation of TRUE-UP PJM RTEP Project Revenue Requirement Billed to Benefiting Zones  
 COMPANY NAME HERE

Page 1 of 2

**I. Calculate Return and Income Taxes with basis point ROE increase for Projects Qualified for Regional Billing.**

**A. Determine 'R' with hypothetical basis point increase in ROE for Identified Projects**

ROE w/o incentives (TCOS, ln 156)	0.00%
Project ROE Incentive Adder	0.00%
ROE with additional basis point incentive	0.00%

Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the TCOS, lns 154 through 156)

	%	Cost	Weighted cost
Long Term Debt	0.00%	0.00%	0.000%
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	0.00%	0.00%	0.000%
		R =	0.000%

**B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects.**

Rate Base (TCOS, ln 68)	-
R (from A. above)	0.000%
Return (Rate Base x R)	-

**C. Determine Income Taxes using Return with hypothetical basis point ROE increase for Identified Projects.**

Return (from B. above)	-
Effective Tax Rate (TCOS, ln 114)	0.00%
Income Tax Calculation (Return x CIT)	-
ITC Adjustment	-
Excess Deferred Income Tax	-
Tax Affect of Permanent Differences	-
Income Taxes	-

**II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical basis point ROE increase.**

**A. Determine Annual Revenue Requirement less return and Income Taxes.**

Annual Revenue Requirement (TCOS, ln 1)	-
Lease Payments (TCOS, Ln 95)	-
Return (TCOS, ln 126)	-
Income Taxes (TCOS, ln 125)	-
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	-

**B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.**

Annual Revenue Requirement, Less Lease Payments, Return and Taxes	-
Return (from I.B. above)	-
Income Taxes (from I.C. above)	-
Annual Revenue Requirement, with Basis Point ROE increase	-
Depreciation (TCOS, ln 100)	-

Annual Rev. Req, w/ Basis Point ROE increase, less Depreciation

**C. Determine FCR with hypothetical basis point ROE increase.**

Net Transmission Plant (TCOS, ln 42)	-
Annual Revenue Requirement, with Basis Point ROE increase	-
FCR with Basis Point increase in ROE	0.00%
Annual Rev. Req, w / Basis Point ROE increase, less Dep.	-
FCR with Basis Point ROE increase, less Depreciation	0.00%
FCR less Depreciation (TCOS, ln 10)	0.00%
Incremental FCR with Basis Point ROE increase, less Depreciation	0.00%

**III. Calculation of Composite Depreciation Rate**

Average Transmission Plant Balance for Rate Year (TCOS, ln 21)	-
Annual Depreciation and Amortization Expense (TCOS, ln 100)	-
Composite Depreciation Rate	0.00%
Depreciable Life for Composite Depreciation Rate	-
Round to nearest whole year	-

SUMMARY OF TRUED-UP ANNUAL REVENUE REQUIREMENTS FOR RTEP PROJECTS			
TRUE-UP YEAR	Rev Require	W Incentives	Incentive Amounts
	Historic Year		
As Projected in Prior Year WS J			
	Actual after True-up	\$ -	\$ -
	True-up of ARR For Historic Year	-	-

**COMPANY NAME HERE Worksheet K - ATRR TRUE-UP Calculation for PJM Projects Charged to Benefiting Zones**

**IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.**

**A. Base Plan Facilities**

**Facilities receiving incentives accepted by FERC in Docket No.** [REDACTED] (e.g. ER05-925-000)

**Project Description:**

Historic Year	Rev Require	W Incentives	Incentive Amounts
Prior Yr Projected	-	-	-
Prior Yr Actual	-	-	-
True-Up Adjustment	-	-	-

Details		Current Year	Historic Year
Investment	[REDACTED]		[REDACTED]
Service Year (yyyy)	[REDACTED]	ROE increase accepted by FERC (Basis Points)	-
Service Month (1-12)	[REDACTED]	FCR w/o incentives, less depreciation	0.00%
Useful life	-	FCR w/incentives approved for these facilities, less dep.	0.00%
CIAC (Yes or No)	No	Annual Depreciation Expense	-

Investment Year	Beginning Balance	Depreciation Expense	Ending Balance	Average Balance	RTEP Rev. Req't. w/o Incentives	RTEP Rev. Req't. with Incentives **	Incentive Rev. Requirement ##
-	-	-	-	-	-	-	\$ -
-	-	-	-	-	-	-	\$ -

**TRUE UP OF PROJECT REVENUE REQUIREMENT FOR PRIOR YEAR: CUMULATIVE HISTORY OF TRUED-UP ANNUAL REVENUE REQUIREMENTS:**

INPUT TRUE-UP ARR (WITH & WITHOUT INCENTIVES) FROM EACH PRIOR YEAR TEMPLATE BELOW TO MAINTAIN HISTORY OF TRUED-UP ARRS OVER THE LIFE OF THE PROJECT.

RTEP Projected Rev. Req't.From Prior Year WS J w/o Incentives	RTEP Rev Req't True-up w/o Incentives	RTEP Projected Rev. Req't.From Prior Year WS J with Incentives **	RTEP Rev Req't True-up with Incentives **	True-up of Incentive with Incentives **
[REDACTED]	\$ -	[REDACTED]	\$ -	\$ -
[REDACTED]	\$ -	[REDACTED]	\$ -	\$ -

Project Totals

\*\* This is the total amount that needs to be reported to PJM for billing to all regions.

## This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive return. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
- AEP East Companies

AEP East Companies  
Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
Worksheet L  
COMPANY NAME HERE

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 - AEP East Companies

AEP East Companies  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital  
 Company Name

Line No	Month	Average Balance of Common Equity				Average Balance of Common Equity (f)=(b)-(c)-(d)-(e)
		Proprietary Capital (b)	Less: Preferred Stock (c)	Less Undistributed Sub Earnings (Acct 216.1) (d)	Less AOCI (Acct 219.1) (e)	
	(Note A)	(FF1 112.16)	(FF1 250-251)	(FF1 112.12)	(FF1 112.15)	
1	December Prior to Rate Year					-
2	January					-
3	February					-
4	March					-
5	April					-
6	May					-
7	June					-
8	July					-
9	August					-
10	September					-
11	October					-
12	November					-
13	December of Rate Year					-
14	Average of the 13 Monthly Balances	-	-	-	-	-

Line No	Month	Average Balance of Long Term Debt					Gross Proceeds Outstanding Long-Term Debt (g)=(b)-(c)+(d)+(e)-(f)
		Acct 221 Bonds (b)	Less: Acct 222 Reacquired Bonds (c)	Acct 223 LT Advances from Assoc. Companies (d)	Acct 224 Senior Unsecured Notes (e)	Less: Fair Value Hedges (f)	
	(Note A)	(FF1 112.18)	(FF1 112.19)	(FF1 112.20)	(FF1 112.21)	FF1, page 257, Col. (h) - Note 1	
15	December Prior to Rate Year						-
16	January						-
17	February						-
18	March						-
19	April						-
20	May						-
21	June						-
22	July						-
23	August						-
24	September						-
25	October						-
26	November						-
27	December of Rate Year						-
28	Average of the 13 Monthly Balances	-	-	-	-	-	-

NOTE 1: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (Page 257 Column H of the FF1)

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
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**Development of Cost of Long Term Debt Based on Average Outstanding Balance**

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29 <b>Annual Interest Expense for 2017</b>							
Interest on Long Term Debt - Accts 221							
30 - 224 (256-257.33.i)							
Less: Total Hedge Gain/Expense Accumulated from p 256-257, col. (i) of FERC Form 1 included in Ln 30 and shown in 50 below.				-			
31 Plus: Allowed Hedge Recovery From Ln 55 below.				-			
32 Amort of Debt Discount & Expense - Acct 428 (117.63.c)							
33 Amort of Loss on Reacquired Debt - Acct 428.1 (117.64.c)							
34 Less: Amort of Premium on Debt - Acct 429 (117.65.c)							
35 Less: Amort of Gain on Reacquired Debt - Acct 429.1 (117.66.c)							
36 <b>Total Interest Expense (Ln 30 - 31 + 33 + 34 - 35 - 36)</b>				-			
37 <b>Average Cost of Debt for 2017 (Ln 37/ Ln 28 (g))</b>							#DIV/0!

**CALCULATION OF RECOVERABLE HEDGE GAINS/LOSSES**

39 NOTE: The net amount of hedging gains or losses recorded in account 427 to be recovered in this formula rate should be limited to the effective portion of pre-issuance cash flow hedges that are amortized over the life of the underlying debt issuances. The recovery of a net loss or passback of a net gain will be limited to five basis points of the total Capital Structure. Amounts related to the ineffective portion of pre-issuance hedges, cash settlements of fair value hedges issued on Long Term Debt, post-issuance cash flow hedges, and cash flow hedges of variable rate debt issuances are not recoverable in this formula and are to be recorded in the "Excludable" column below.

	HEDGE AMOUNTS BY ISSUANCE (FROM p. 256-257 (i) of the FERC Form 1)	Total Hedge (Gain)/Losses for 2017	Less Excludable Amounts (See NOTE on Line 39)	Net Includable Hedge Amount	Amortization Period	
					Remaining Unamortized Balance	Beginning Ending
40				-		
41				-		
42				-		
43				-		
44				-		
45				-		
46				-		
47				-		
48				-		
49						
50	Total Hedge Amortization	-	-			
51	Hedge Gain or Loss Prior to Application of Recovery Limit (Sum of Lines 40 to 48)			-		
52	Total Average Capital Structure Balance for 2017 (TCOS, Ln 157)			-		
53	Financial Hedge Recovery Limit - Five Basis Points of Total Capital			0.0005		
54	Limit of Recoverable Amount			-		
55	<b>Recoverable Hedge Amortization (Lesser of Ln 51 or Ln 54)</b>			-		

**Development of Cost of Preferred Stock**

	Preferred Stock	Average
56	0% Series - 0 - Dividend Rate (p. 250-251)	0.000% \$ 0.000%
57	0% Series - 0 - Par Value (p. 250-251)	-
58	0% Series - 0 - Shares O/S (p.250-251)	-
59	0% Series - 0 - Monetary Value (Ln 57 * Ln 58)	-
60	0% Series - 0 - Dividend Amount (Ln	-

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
 - AEP East Companies

56 * Ln 59)	-	-	-
61 0% Series - 0 - Dividend Rate (p. 250-251)	0.000%	0.000%	
	\$	\$	
62 0% Series - 0 - Par Value (p. 250-251)	-	-	
63 0% Series - 0 - Shares O/S (p.250-251)	-	-	
64 0% Series - 0 - Monetary Value (Ln 62 * Ln 63)	-	-	-
65 0% Series - 0 - Dividend Amount (Ln 61 * Ln 64)	-	-	-
66 0% Series - 0 - Dividend Rate (p. 250-251)	0.000%	0.000%	
	\$	\$	
67 0% Series - 0 - Par Value (p. 250-251)	-	-	
68 0% Series - 0 - Shares O/S (p.250-251)	-	-	
69 0% Series - 0 - Monetary Value (Ln 67 * Ln 68)	-	-	-
70 0% Series - 0 - Dividend Amount (Ln 66 * Ln 69)	-	-	-

71 **Balance of Preferred Stock (Lns 59, 64, 69)**  
 72 **Dividends on Preferred Stock (Lns 60, 65, 70)**  
 73 **Average Cost of Preferred Stock (Ln 72/71)**

-	-	-
-	-	-
0.00%	0.00%	<b>0.00%</b>

Year End Total Agrees to FF1  
 p.112, Ln 3, col (c ) & (d)

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

**AEP East Companies**  
**Cost of Service Formula Rate Using Actual/Projected FF1 Balances**  
**Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use**

**Note: Gain or loss on plant held for future are recorded in accounts 411.6 or 411.7 respectively. Sales will be functionalized based on the description of that asset. Sales of transmission assets will be direct assigned; sales of general assets will be functionalized on labor. Sales of plant held for future use related to generation or distribution will not be included in the formula.**

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
Line	Date	Property Description	Function (T) or (G) T = Transmission G = General	Basis	Proceeds	(Gain) / Loss	Functional Allocator	Functionalized Proceeds (Gain) / Loss	FERC Account
1						-	0.000%	-	
2						-	0.000%	-	
3						-	0.000%	-	
4				Net (Gain) or Loss for Rate Year		-		-	

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

AEP East Companies

Cost of Service Formula Rate Using Actual/Projected FF1 Balances

Worksheet O - Calculation of Postemployment Benefits Other than Pensions Expenses Allocable to Transmission Service

COMPANY NAME HERE

1 Total AEP East Operating Company PBOP Settlement Amount

Allocation of PBOP Settlement Amount for Rate Year:

**Total Company Amount**

Line #	Company	Actual Expense (Including AEPSC Billed OPEB) (A) (Line 14)	Ratio of Company Actual to Total (B)=(A)/Total (A)	Allocation of PBOP Recovery Allowance (C)=(B) * 1	Labor Allocator for Rate Year (D)	Actual Expense (E)=(A) * (D)	Allowable Expense (F)=(C) * (D)	One Year Functional Expense (Over)/Under (G)=(E) - (F)
2	APCo		0.00%	-		-	-	-
3	I&M		0.00%	-		-	-	-
4	KPCo		0.00%	-		-	-	-
5	KNGP		0.00%	-		-	-	-
6	OPCo		0.00%	-		-	-	-
7	WPCo		0.00%	-		-	-	-
8	<b>Sum of Lines 2 to 7</b>	-		-		-	-	-

**Detail of Actual PBOP Expenses to be Removed in Cost of Service**

	APCo	I&M	KPCo	KNGSPT	OPCo	WPCo	AEP East Total
9 Direct Charged PBOP Expense per Actuarial Report							-
10 Additional PBOP Ledger Entries (from Company Records)							-
11 Medicare Subsidy							-
12 Net Company Expense (Ln 9 + Ln 10 + Ln 11)	-	-	-	-	-	-	-
13 PBOP Expenses From AEP Service Corporation (from Company Records)							-
14 Company PBOP Expense (Ln 12 + Ln 13)	-	-	-	-	-	-	-

Note:

For the rate year 2017 and adjusted every four years thereafter, using the annual actuarial report produced for that year, filed as part of the informational filing, Worksheet O will be used to adjust PBOP costs for the next four years (i.e. 2017, 2018, 2019, 2020). If the annual actuarial report projects PBOP costs during the next four years, taken together with the then current cumulative PBOP cost/allowance position, will, absent a change in the PBOP allowance, cause the AEP Companies to over or under collect their cumulative PBOP costs by more than 20% of the projected next four year's total cost, the PBOP allowance shall be adjusted. Worksheet O will be used in the process of updating the PBOP allowance determining (a) the level of cumulative over or under collections during the period since the PBOP allowance was last set, including carrying costs based on the weighted average cost of capital ("WACC") each year from the formula actual rate; (b) the cumulative net present value of projected PBOP costs during the next four years, as estimated by the then current actuarial report, assuming a discount rate equal to the actual formula rate WACC for the prior calendar year; and (c) the cumulative net present value of continued collections over the next four years based on the then effective PBOP allowance, assuming a discount rate equal to the prior year WACC. If the absolute value of (a)+(b)-(c) exceeds 20% of (b), then the PBOP allowance used in the formula rate calculation shall be changed to the value that will cause the projected result of (a)+(b)+(c) to equal zero. If the projected over or under collection during the next four years will be less than 20% of (b), then the PBOP allowance will continue in effect for the next four years at the then effective rate. If it is determined through this procedure AEP Companies will over-recover or under-recover actual PBOP expenses by more than 20% over the subsequent four-year period, AEP shall make a filing under FPA Section 205 to change the PBOP expense stated in the formula rate shown on Worksheet O. No other changes to the formula rate may be included in that filing.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

AEP EAST COMPANIES  
 Worksheet - P CALCULATION OF  
 TOTAL WEIGHTED AVERAGE DEPRECIATION RATES  
 FOR TRANSMISSION PLANT PROPERTY ACCOUNT  
 EFFECTIVE AS OF 3/6/2019  
 FOR MULTIPLE JURISDICTION COMPANIES

APPALACHIAN POWER COMPANY																
VIRGINIA					WEST VIRGINIA					FERC WHOLESAL		FERC KINGSPORT		COMPANY		
(1)					(2)					(3)		(4)				
PLANT	VA SCC	ALLOCATION	WTD AVG.	PSC OF WV	ALLOCATION	WTD AVG.	FERC	ALLOCATION	WTD AVG.	FERC	ALLOCATION	WTD AVG.	WTD AVG.			
ACCT.	RATES	FACTOR (5)	DEPREC. RATE	APPROVED RATES	FACTOR (5)	DEPREC. RATE	RATES	FACTOR (5)	DEPREC. RATE	RATES	FACTOR (5)	DEPREC. RATE	DEPREC. RATE			
<b>TRANSMISSION PLANT</b>																
Land Rights - Va.	1	0.66%	1.000000	0.66%										0.66%		
Energy Storage Equipment (6)			351.0		14.22%	1.000000	14.22%							14.22%		
Structures & Improvements			352.0	1.55%	0.492648	0.76%	1.62%	0.414603	0.67%	2.19%	0.033874	0.07%	2.19%	0.058874	0.13%	1.63%
Station Equipment			353.0	1.95%	0.492648	0.96%	2.37%	0.414603	0.98%	2.19%	0.033874	0.07%	2.19%	0.058874	0.13%	2.14%
Towers & Fixtures			354.0	1.14%	0.492648	0.56%	1.59%	0.414603	0.66%	2.19%	0.033874	0.07%	2.19%	0.058874	0.13%	1.42%
Poles & Fixtures			355.0	2.77%	0.492648	1.36%	2.71%	0.414603	1.12%	2.19%	0.033874	0.07%	2.19%	0.058874	0.13%	2.68%
Overhead Conductor			356.0	1.01%	0.492648	0.50%	1.53%	0.414603	0.63%	2.19%	0.033874	0.07%	2.19%	0.058874	0.13%	1.33%
Underground Conduit			357.0	1.23%	0.492648	0.61%	3.71%	0.414603	1.54%	2.19%	0.033874	0.07%	2.19%	0.058874	0.13%	2.35%
Underground Conductors			358.0	3.18%	0.492648	1.57%	5.24%	0.414603	2.17%	2.19%	0.033874	0.07%	2.19%	0.058874	0.13%	3.94%
<b>GENERAL PLANT</b>																
Structures and Improvements			390.0	1.50%	0.519557	0.78%	1.91%	0.425935	0.81%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	1.78%
Office Furniture and Equip.			391.0	2.78%	0.519557	1.44%	3.17%	0.425935	1.35%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	2.98%
Transportation Equipment			392.0	0.00%	0.519557	0.00%	3.40%	0.425935	1.45%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	1.64%
Stores Equipment			393.0	1.60%	0.519557	0.83%	1.80%	0.425935	0.77%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	1.79%
Tools, Shop and Garage Equipment			394.0	2.07%	0.519557	1.08%	2.57%	0.425935	1.09%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	2.36%
Laboratory Equipment			395.0	1.53%	0.519557	0.79%	4.01%	0.425935	1.71%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	2.69%
Power Operated Equipment			396.0	0.00%	0.519557	0.00%	3.90%	0.425935	1.66%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	1.85%
Communications Equipment			397.0	3.27%	0.519557	1.70%	4.98%	0.425935	2.12%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	4.01%
Micellaneous Equipment			398.0	2.51%	0.519557	1.30%	2.70%	0.425935	1.15%	3.43%	0.019780	0.07%	3.43%	0.034728	0.12%	2.64%

(1) As approved in VA Case No. PUE 2011-00037 on Nov. 30, 2011.  
 Depreciation rates were made effective on February 1, 2012.

(2) Approved by PSC of WV Order dated February 27, 2019 in

(3) Approved by FERC March 2, 1990 in Docket ER90-132

(4) Approved by FERC March 2, 1990 in Docket ER90-133

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

Case No. 18-0645-E-D effective March 6, 2019.

(5) The demand allocation factors are updated annually as of January 1, based on the 12 monthly CP's as of the previous September 30th.

(6) Energy Storage Equipment is a new account established per FERC Order 784.

**GENERAL NOTES:**

The rates for each AEP company have been approved by their respective regulatory commissions.

APCo falls under the authority of Virginia, West Virginia and the FERC. Therefore, APCo's rates are a composite of the jurisdictions under which it operates. Each jurisdiction's rate is multiplied by an allocation factor, and the product for each jurisdiction is added with the other jurisdictions to derive the composite rate for the company.

AEP will make a 205 filing whenever a company's rates are changed by their commission(s), or if the methodology to calculate the jurisdictional allocator in multiple-state companies changes. Changes in the allocation factors will not necessitate a 205 filing.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

AEP EAST COMPANIES  
 Worksheet - P CALCULATION OF  
 TOTAL WEIGHTED AVERAGE DEPRECIATION RATES  
 FOR TRANSMISSION PLANT PROPERTY ACCOUNT  
 EFFECTIVE AS OF March 11, 2020  
 FOR MULTIPLE JURISDICTION COMPANIES  
 INDIANA MICHIGAN POWER COMPANY

	INDIANA				MICHIGAN			FERC WHOLESALE			TOTAL COMPANY
	(1)			(2)		(3)					
	PLANT ACCT.	IURC RATES	ALLOCATION FACTOR (4)	WTD AVG. DEPREC. RATE	MPSC APPROVED RATES	ALLOCATION FACTOR (4)	WTD AVG. DEPREC. RATE	FERC RATES	ALLOCATION FACTOR (4)	WTD AVG. DEPREC. RATE	WTD AVG. DEPREC. RATE
<b>TRANSMISSION PLANT</b>											
Land Improvements Structures & Improvements	350.1	1.66%	0.6623353	1.0995%	1.62%	0.3376647	0.5470%	1.62%	0.3376647	0.5470%	1.65%
Station Equipment	352.0	1.77%	0.6623353	1.1723%	1.74%	0.3376647	0.5875%	1.74%	0.3376647	0.5875%	1.76%
Towers & Fixtures	353.0	2.43%	0.6623353	1.6095%	2.41%	0.3376647	0.8138%	2.41%	0.3376647	0.8138%	2.42%
Poles & Fixtures	354.0	2.57%	0.6623353	1.7022%	2.45%	0.3376647	0.8273%	2.45%	0.3376647	0.8273%	2.53%
Overhead Conductors	355.0	3.19%	0.6623353	2.1128%	3.17%	0.3376647	1.0704%	3.17%	0.3376647	1.0704%	3.18%
Underground Conduit Underground Conductors	356.0	2.35%	0.6623353	1.5565%	2.28%	0.3376647	0.7699%	2.28%	0.3376647	0.7699%	2.33%
Trails & Roads	357.0	2.30%	0.6623353	1.5234%	2.21%	0.3376647	0.7462%	2.21%	0.3376647	0.7462%	2.27%
	358.0	1.93%	0.6623353	1.2783%	1.90%	0.3376647	0.6416%	1.90%	0.3376647	0.6416%	1.92%
	359.0	1.61%	0.6623353	1.0664%	1.59%	0.3376647	0.5369%	1.59%	0.3376647	0.5369%	1.60%
<b>GENERAL PLANT</b>											
Structures and Improvements	390.0	2.08%	0.6818683	1.4183%	2.08%	0.3181317	0.6617%	2.08%	0.3181317	0.6617%	2.08%
Office Furniture and Equip.	391.0	4.79%	0.6818683	3.2661%	4.84%	0.3181317	1.5398%	4.84%	0.3181317	1.5398%	4.81%
Transportation Equipment	392.0	4.64%	0.6818683	3.1639%	4.68%	0.3181317	1.4889%	4.68%	0.3181317	1.4889%	4.65%
Stores Equipment	393.0	7.35%	0.6818683	5.0117%	7.38%	0.3181317	2.3478%	7.38%	0.3181317	2.3478%	7.36%
Tools, Shop and Garage Equipment	394.0	6.99%	0.6818683	4.7663%	7.07%	0.3181317	2.2492%	7.07%	0.3181317	2.2492%	7.02%
Laboratory Equipment	395.0	5.41%	0.6818683	3.6889%	5.46%	0.3181317	1.7370%	5.46%	0.3181317	1.7370%	5.43%
Power Operated Equipment	396.0	4.81%	0.6818683	3.2798%	4.90%	0.3181317	1.5588%	4.90%	0.3181317	1.5588%	4.84%
Communications Equipment	397.0	3.91%	0.6818683	2.6661%	3.93%	0.3181317	1.2503%	3.93%	0.3181317	1.2503%	3.92%
Micellaneous Equipment	398.0	3.32%	0.6818683	2.2638%	3.35%	0.3181317	1.0657%	3.35%	0.3181317	1.0657%	3.33%

(1) As approved in Indiana Cause No. 45235 effective March 11, 2020.

(2) As approved in Michigan Case No. U-20359 effective February 1, 2020.

(3) FERC wholesale formula rate agreements specify that the depreciation rates in the formula rates change upon approval of MPSC rates in the Michigan jurisdiction.



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II - AEP East Companies

**(4) The rates approved for each jurisdiction are updated when approved by that commission. These demand-based allocation factors for all jurisdictions are updated when new rates are approved in one of the jurisdictions. These allocation factors reflect I&M's 12 monthly Coincident Peaks during test year of the most recent rate case.**

**GENERAL NOTES:**

The rates for each AEP company have been approved by their respective regulatory commissions.

I&M falls under the authority of Indiana, Michigan and the FERC. Therefore, I&M's rates are a composite of the jurisdictions under which it operates. Each jurisdictions' rate is multiplied by an allocation factor, and the product for each jurisdiction is added with the other jurisdictions to derive the composite rate for the company.

AEP will make a 205 filing whenever a company's rates are changed by their commission(s), or if the methodology to calculate the jurisdictional allocator in multiple-state companies changes. Changes in the allocation factors will not necessitate a 205 filing.

**AEP EAST COMPANIES  
 PJM FORMULA RATE  
 WORKSHEET P - TRANSMISSION DEPRECIATION RATES  
 EFFECTIVE AS OF 9/1/2016  
 FOR SINGLE JURISDICTION COMPANIES  
 KINGSPORT POWER COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES Note 1</b>
<b>TRANSMISSION PLANT</b>		
Structures & Improvements	352.0	1.04%
Station Equipment	353.0	1.49%
Towers & Fixtures	354.0	0.12%
Poles & Fixtures	355.0	2.14%
Overhead Conductors	356.0	0.77%
Underground Conduit	357.0	Note 2
Underground Conductors	358.0	Note 2
<b>Composite Transmission Depreciation Rate</b>		<b>1.46%</b>
<b>GENERAL PLANT</b>		
Structures & Improvements	390.0	1.71%
Office Furniture & Equipment	391.0	2.82%
Stores Equipment	393.0	2.22%
Tools Shop & Garage Equipment	394.0	3.12%
Laboratory Equipment	395.0	3.17%
Communication Equipment	397.0	3.32%
Miscellaneous Equipment	398.0	4.92%
	Total General Plant	3.25%

Reference:

Note 1: Rates Approved In Tennessee Regulatory Authority Docket No. 16-00001.

Note 2: Kingsport Power Company does not have investment in plant accounts 357 or 358. Therefore, there are no depreciation rates approved for these plant accounts.

**General Note**

AEP will make a 205 filing whenever a company's rates are changed by their commission(s), or if the methodology to calculate the jurisdictional allocator in multiple-state companies changes. Changes in the allocation factors will not necessitate a 205 filing.

**AEP EAST COMPANIES**  
**PJM FORMULA RATE**  
**WORKSHEET P - TRANSMISSION DEPRECIATION RATES**  
**EFFECTIVE AS OF 7/1/2015**  
**FOR SINGLE JURISDICTION COMPANIES**  
**KENTUCKY POWER COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES</b>
		Note 1
<b>TRANSMISSION PLANT</b>		
Land Rights	350.1	1.44%
Structures & Improvements	352.0	2.08%
Station Equipment	353.0	2.15%
Towers & Fixtures	354.0	2.61%
Poles & Fixtures	355.0	3.95%
Overhead Conductors	356.0	2.91%
Underground Conduit	357.0	2.99%
Underground Conductors	358.0	2.62%
<b>GENERAL PLANT</b>		
Land and Land Rights	389.1	1.59%
Structures and Improvements	390.0	3.97%
Office Furniture and Equip.	391.0	3.20%
Transportation Equipment	392.0	3.52%
Stores Equipment	393.0	4.15%
Tools, Shop and Garage Equipment	394.0	4.20%
Laboratory Equipment	395.0	5.76%
Power Operated Equipment	396.0	5.43%
Communications Equipment	397.0	5.66%
Micellaneous Equipment	398.0	6.73%

Reference:

Note 1: Rates Approved in Kentucky Public Service Commission Case No. 2014-00396.

**General Note:**

AEP will make a 205 filing whenever a company's rates are changed by their commission(s), or if the methodology to calculate the jurisdictional allocator in multiple-state companies changes. Changes in the allocation factors will not necessitate a 205 filing.

**AEP EAST COMPANIES**  
**PJM FORMULA RATE**  
**WORKSHEET P - TRANSMISSION DEPRECIATION RATES**  
**EFFECTIVE AS OF 1/1/2012**  
**FOR SINGLE JURISDICTION COMPANIES**  
**OHIO POWER COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES Note 1</b>
<b>TRANSMISSION PLANT (Note 1)</b>		
Structures & Improvements	352.0	2.02%
Station Equipment	353.0	2.29%
Twrs and Fixtures Above 69 KV	354.0	1.88%
Twrs and Fixtures Below 69 KV	354.0	1.88%
Poles and Fixtures Above 69 KV	355.0	3.52%
Poles and Fixtures Below 69 KV	355.0	3.52%
Overhead Conductor & Devices Above 69KV	356.0	1.91%
Overhead Conductor & Devices MSP	356.0	1.91%
Overhead Conductor & Devices 138KV/Above	356.0	1.91%
Overhead Conductor & Devices 69KV/Below	356.0	1.91%
Overhead Conductor & Devices CLR 69KV/Below	356.0	1.91%
Underground Conduit	357.0	2.26%
Underground Conductors	358.0	3.27%
<b>GENERAL PLANT (Note 2)</b>		
Structures and Improvements	390.0	2.17%
Office Furniture and Equip.	391.0	3.33%
Transportation Equipment	392.0	2.00%
Stores Equipment	393.0	2.94%
Tools, Shop and Garage Equipment	394.0	3.53%
Laboratory Equipment	395.0	3.57%
Power Operated Equipment	396.0	3.85%
Communications Equipment	397.0	2.86%
AMI - Communications Equipment	397.16	6.67%
Micellaneous Equipment	398.0	4.00%

Reference:

Note 1: These are the weighted average of the depreciation rates in effect for Columbus Southern Power and Ohio Power prior to the merger of Columbus Southern into Ohio Power.

Note 2: General Plant depreciation rates were updated as a result of the order issued in Cases No 16-1852-EL-SSO and 16-1853-EL-SSO.

**General Note:**

AEP will make a 205 filing whenever a company's rates are changed by their commission(s), or if the methodology to calculate the jurisdictional allocator in multiple-state companies changes. Changes in the allocation factors will not necessitate a 205 filing.

**AEP EAST COMPANIES**  
**PJM FORMULA RATE**  
**WORKSHEET P - TRANSMISSION DEPRECIATION RATES**  
**EFFECTIVE AS OF 3/6/2019**  
**FOR SINGLE JURISDICTION COMPANIES**  
**WHEELING POWER COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES</b> Note 1
<b>TRANSMISSION PLANT</b>		
Structures & Improvements	352.0	1.15%
Station Equipment	353.0	2.22%
Towers & Fixtures	354.0	2.65%
Poles & Fixtures	355.0	2.41%
Overhead Conductors	356.0	1.32%
Underground Conduit	357.0	9.94%
Underground Conductors	358.0	13.98%
Trails & Roads	359.0	-
<b>GENERAL PLANT</b>		
Structures and Improvements	390.0	1.08%
Office Furniture and Equip.	391.0	2.13%
Stores Equipment	393.0	1.78%
Tools, Shop and Garage Equipment	394.0	1.65%
Communications Equipment	397.0	5.09%
Micellaneous Equipment	398.0	2.76%

Note 1: Rates Approved in WV Public Service Commission Case No. 18-0645-E-D.

**General Note:**

AEP will make a 205 filing whenever a company's rates are changed by their commission(s), or if the methodology to calculate the jurisdictional allocator in multiple-state companies changes. Changes in the allocation factors will not necessitate a 205 filing.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-14B Part II  
 - AEP East Companies

**AEP East Companies**  
**Cost of Service Formula Rate Using Actual/Projected FF1 Balances**  
**Worksheet Q – True-up With Interest**  
**(Hypothetical Example)**

Reconciliation Revenue Requirement For Year 2018 Available May 25, 2019 <hr style="border: 1px solid green;"/>	-	2018 Revenue Requirement Forecast by October 31, 2017 <hr style="border: 1px solid green;"/>	=	True-up Adjustment - Over (Under) Recovery <hr style="border: 1px solid green;"/>
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	Over (Under) Recovery Plus Interest	Average Monthly Interest Rate	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed
<b>Interest Rate on Amount of Refunds or Surcharges (Note 1)</b>		0.2780%				
<b>An over or under collection will be recovered prorata over 2018, held for 2019 and returned prorata over 2020</b>						

<u>Calculation of Interest</u>			<b>Monthly</b>			
January	Year 2018	-	0.2780%	12	-	-
February	Year 2018	-	0.2780%	11	-	-
March	Year 2018	-	0.2780%	10	-	-
April	Year 2018	-	0.2780%	9	-	-
May	Year 2018	-	0.2780%	8	-	-
June	Year 2018	-	0.2780%	7	-	-
July	Year 2018	-	0.2780%	6	-	-
August	Year 2018	-	0.2780%	5	-	-
September	Year 2018	-	0.2780%	4	-	-
October	Year 2018	-	0.2780%	3	-	-
November	Year 2018	-	0.2780%	2	-	-
December	Year 2018	-	0.2780%	1	-	-
				<hr style="border: 1px solid black;"/>	-	<hr style="border: 1px solid black;"/>
				-	-	-

			<b>Annual</b>			
January through December	Year 2019	-	0.2780%	12	-	-

<u>Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months</u>			<b>Monthly</b>			
January	Year 2020	-	0.2780%	-	-	-
February	Year 2020	-	0.2780%	-	-	-
March	Year 2020	-	0.2780%	-	-	-
April	Year 2020	-	0.2780%	-	-	-
May	Year 2020	-	0.2780%	-	-	-
June	Year 2020	-	0.2780%	-	-	-
July	Year 2020	-	0.2780%	-	-	-
August	Year 2020	-	0.2780%	-	-	-
September	Year 2020	-	0.2780%	-	-	-
October	Year 2020	-	0.2780%	-	-	-
November	Year 2020	-	0.2780%	-	-	-
December	Year 2020	-	0.2780%	-	-	-
				<hr style="border: 1px solid black;"/>	-	<hr style="border: 1px solid black;"/>
				-	-	-

True-Up Adjustment with Interest -  
 Less Over (Under) Recovery -  
 Total Interest -  
 Note 1: The interest rate to be applied to the over recovery or under recovery amounts will be determined using the average monthly FERC interest rate (as determined pursuant to 18 C.F.R. section 35.19a) for the twenty (20) months from the beginning of the rate year being trued-up through August 31 of the following year.

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## ATTACHMENT H-20

### Annual Transmission Rates – AEP Transmission Companies (AEPTCo)<sup>1</sup> In the AEP Zone

1. The annual transmission revenue requirement is equal to the results of the AEPTCo formula and its associated attachments shown in Attachment H-20B posted on the PJM Internet site (“Formula Rate”) which reflects the facilities within PJM and the associated revenue requirements of AEPTCo. The rates determined pursuant to Attachment H-20B shall be implemented pursuant to the Formula Rate Implementation Protocols set forth in Attachment H-20A.
2. **Determination of monthly charges for AEP Zone:** On a monthly basis, revenue credits shall be calculated based on the sum of AEPTCo’s share of revenues collected during the month from: (i) the PJM Border Rate under Schedule 7; (ii) Network Integration Transmission Service to Non-Zone Network Load under Attachment H-A; and (iii) Firm Point-To-Point Transmission Service where the Point of Delivery is internal to the AEP Zone. The sum of these revenue credits and potential charges will appear as an adjustment (reduction) to the gross monthly rate stated above on a Transmission Customer’s bill in that month for service under this schedule.
3. The revenue requirement in (1) shall be effective until amended by AEPTCo or modified by the Commission.
4. In addition to the rate set forth in section (1) above, the Network Customer purchasing Network Integration transmission Service shall pay for transmission congestion charges, and any other applicable charges, in accordance with the provisions of this Tariff, and any amounts necessary to reimburse the Transmission Owners for any amounts payable to them as sales, excise, “btu,” carbon, value-added, or similar taxes (other than taxes based upon or measured by net income) with respect to the amounts payable pursuant to the Tariff.

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<sup>1</sup> AEPTCo subsidiaries in PJM include AEP Appalachian Transmission Company, Inc., AEP Indiana Michigan Transmission Company, Inc., AEP Kentucky Transmission Company, Inc, AEP Ohio Transmission Company, Inc., and AEP West Virginia Transmission Company, Inc.

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## **ATTACHMENT H-20 A**

### **THE AEP TRANSMISSION COMPANIES IN THE AEP ZONE FORMULA RATE IMPLEMENTATION PROTOCOLS**

The formula rate template (“Template”), and these formula rate implementation protocols (“Protocols”) together comprise the filed rate (“Formula Rate”) of AEP Appalachian Transmission Company Inc., AEP Indiana Michigan Transmission Company Inc., AEP Kentucky Transmission Company Inc., AEP Ohio Transmission Company Inc., and AEP West Virginia Transmission Company Inc. (collectively “AEPTCo”) for transmission revenue requirement determinations under the PJM Interconnection, LLC (“PJM”) Open Access Transmission Tariff (“PJM Tariff”). AEPTCo shall follow the instructions specified in the Formula Rate to calculate annually its net annual transmission revenue requirement, as set forth at Attachment H-20B, page 1, line 4 of the Template (“Net Revenue Requirement”). The Net Revenue Requirement shall be determined for January 1 to December 31 of a given calendar year (the “Rate Year”). The Formula Rate shall become effective for recovery of AEPTCo’s Net Revenue Requirement upon the effective date for incorporation into the PJM Tariff through a filing with the Federal Energy Regulatory Commission (“FERC” or “Commission”) under Section 205 of the Federal Power Act (“FPA”), 16 U.S.C. § 824d.

#### **Section 1. Annual Projection**

- a. No later than October 31 preceding a Rate Year, and each subsequent Rate Year, AEPTCo shall determine its projected Net Revenue Requirement for the upcoming Rate Year in accordance with the Formula Rate (“Annual Projection”). The Annual Projection shall include the True-Up Adjustment described and defined in Section 2 below, if applicable. AEPTCo shall cause an electronic version of the Annual Projection to be posted in both a Portable Document Format (“PDF”) and fully-functioning Excel file at a



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publicly accessible location on PJM's internet website and OASIS. The date on which the posting occurs shall be that year's "Annual Projection Publication Date."

- b. The posting of the Annual Projection shall:
- (i) Provide the Formula Rate calculations and all inputs thereto, as well as supporting documentation and workpapers for data that are used in the projected Net Revenue Requirement;
  - (ii) Include all inputs in sufficient detail to identify the components of AEPTCo's projected Net Revenue Requirement, explanations of the bases for the projections and input data, and sufficient detail and explanation to enable Interested Parties<sup>1</sup> to replicate the calculation of the projected Net Revenue Requirement;
  - (iii) With respect to any Accounting Changes (as that term is defined in Section 3.e.iii)
    - A. Identify any Accounting Changes including:
      - i. The initial implementation of an accounting standard or policy;
      - ii. The initial implementation of accounting practices for unusual or unconventional items where FERC has not provided specific accounting direction;
      - iii. Correction of errors and prior period adjustments that impact the projected Net Revenue Requirement calculation;
      - iv. The implementation of new estimation methods or policies that change prior estimates; and
      - v. Changes to income tax elections;

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<sup>1</sup> As used in these Protocols, "Interested Parties" shall include but not be limited to: (i) any Eligible Customer under the PJM Tariff; (ii) any regulatory agency with rate jurisdiction over a public utility located within the PJM footprint; (iii) any consumer advocate authorized by state law to review and contest the rates for any such public utility; and (iv) any party with standing under FPA section 205 or section 206.

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- B. Identify items included in the projected Net Revenue Requirement at an amount other than on a historic cost basis (e.g., fair value adjustments);
- C. Identify any reorganization or merger transaction during the previous year and explain the effect of the accounting for such transaction(s) on inputs to the projected Net Revenue Requirement; and
- D. Provide, for each item identified pursuant to Section 1.b.iii.A - C of these Protocols, a narrative explanation of the individual impact of such changes on the projected Net Revenue Requirement.

(iv) Include the following information related to affiliate cost allocation:

- A. A detailed description of the methodologies used to allocate and directly assign costs between AEP and its affiliates by service category or function, including any changes to such cost allocation methodologies from the prior year, and the reasons for those changes; and
- B. The magnitude of such costs that have been allocated or directly assigned between AEP and each affiliate by service category or function.

- c. If the date for making the posting of the Annual Projection should fall on a weekend or a holiday recognized by FERC, then the posting shall be made no later than the next business day.<sup>2</sup> Within five (5) calendar days of the posting, PJM shall provide notice of such posting via the PJM Members Committee email subscription (“PJM Exploder List”). Interested Parties can subscribe to the PJM Exploder List on the PJM website.
- d. Together with the posting of the Annual Projection, AEPTCo shall cause to be posted on the PJM internet website and OASIS, and distributed to the PJM Exploder List, the time,

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<sup>2</sup> For the purposes of these Protocols, if any deadline included in these Protocols should fall on a weekend or a holiday recognized by FERC, then the deadline shall be extended to no later than the next business day.

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- date, location, and remote-access information for a stakeholder meeting with Interested Parties in order for AEPTCo to explain its Annual Projection and to provide Interested Parties an opportunity to seek information and clarifications regarding the Annual Projection (“Annual Projection Meeting”). The Annual Projection Meeting shall be held no less than twenty (20) business days and no more than thirty (30) business days after the posting of the Annual Projection. Notice of the Annual Projection Meeting shall be provided via the PJM Exploder List no less than seven (7) calendar days prior to the meeting. AEPTCo will provide remote access to the Annual Projection Meeting in order to ease burdens (e.g. travel costs) to ensure all Interested Parties have the opportunity to participate.
- e. To the extent AEPTCo agrees to make changes in the Annual Projection for a given Rate Year, such revised Annual Projection shall be promptly posted at a publicly accessible location on PJM’s internet website and OASIS, and e-mailed to the PJM Exploder List. Changes posted prior to November 30 preceding the Rate Year, or the next business day if November 30 is not a business day (or such later date as can be accommodated under PJM’s billing practices), shall be reflected in the Annual Projection for the Rate Year; changes posted after that date will be reflected, as appropriate, in the True-Up Adjustment for the Rate Year.
- f. The Annual Projection, including the True-Up Adjustment, for each Rate Year shall be subject to review, challenge, true-up, and refunds or surcharges with interest, to the extent and in the manner provided in these Protocols.

**Section 2. True-Up Adjustment**

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AEPTCo will calculate the amount of under- or over-collection of its actual Net Revenue Requirement during the preceding Rate Year (“True-Up Adjustment”) after the FERC Form No. 1 data for that Rate Year has been filed with the Commission. The True-Up Adjustment shall be the sum of the True-Up Adjustment Over/Under Recovery as determined in Section 2(a) and the Interest on the True-Up Adjustment Over/Under Recovery as determined in Section 2(b):

- a. AEPTCo’s projected Net Revenue Requirement collected during the previous Rate Year<sup>3</sup> will be compared to AEPTCo’s actual Net Revenue Requirement for the previous Rate Year calculated in accordance with AEPTCo’s Formula Rate and based upon (i) AEPTCo’s FERC Form No. 1 for that same Rate Year, (ii) any FERC orders specifically applicable to AEPTCo’s calculation of its annual revenue requirement, (iii) the books and records of AEPTCo (which shall be maintained consistent with the FERC Uniform System of Accounts (“USofA”)), (iv) FERC accounting policies and practices applicable to the calculation of annual revenue requirements under formula rates, and (v) any aspects of the PJM Tariff Governing Documents that apply to the calculation of annual revenue requirements under individual transmission owner formula rates,<sup>4</sup> to determine any over- or under-recovery (“True-Up Adjustment Over/Under Recovery”).

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<sup>3</sup> If the initial use of this Formula Rate covers only part of a calendar year, the initial projected annual Net Revenue Requirement will be divided by 12 to calculate the monthly projected cost of service to be collected each month it is effective that first year. Similarly, the actual Net Revenue Requirement will be divided by 12 to calculate the actual monthly cost of service to be collected during those same months of that year. Similar calculations of projected Net Revenue Requirement and actual Net Revenue Requirement will be made for the months prior to the effective date of this Formula Rate using the previous formula rate in effect during those months. The actual Net Revenue Requirements computed under each of the two formula rate periods that initial Rate Year will be added together to obtain the total actual Net Revenue Requirement. The first True-up Adjustment will compare this total actual Net Revenue Requirement to the Net Revenue Requirement collected under the two formulas for that initial Rate Year.

<sup>4</sup> PJM Tariff Governing Documents include the PJM Tariff, Bylaws, Criteria, and Membership Agreements.

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- b. Interest on any True-Up Adjustment Over/Under Recovery shall be calculated for the thirty-six (36) months during which the over or under recovery in the revenue requirement remains outstanding (*i.e.*, from January 1 of the Rate Year being trued-up through December 31 of the year in which the True-Up Adjustment Over/Under recovery is credited or collected). The interest rate to be applied to the True-Up Adjustment Over/Under Recovery amounts will be determined using the average monthly FERC Interest Rate (as determined pursuant to 18 C.F.R. § 35.19a) for the twenty (20) months from the beginning of the Rate Year being trued-up through August 31 of the following year.

**Section 3. Annual Update**

- a. On or before May 25 following each Rate Year, AEPTCo shall calculate its actual Net Revenue Requirement and the True-Up Adjustment as described in Section 2 (“Annual Update”) for such Rate Year and, together with such other information described in this Section 3, shall cause such Annual Update to be posted, in both a PDF and fully-functioning Excel format, at a publicly accessible location on PJM’s internet website and OASIS. Within five (5) calendar days of such posting, PJM shall provide notice of such posting via the PJM Exploder List.
- b. If the date for making the Annual Update posting should fall on a weekend or a holiday recognized by the FERC, then the posting shall be due on the next business day.
- c. The date on which the posting occurs shall be that year’s “Annual Update Publication Date.”
- d. Together with the posting of the Annual Update, AEPTCo shall cause to be posted on the PJM website and OASIS the time, date, location, and remote-access information for

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a stakeholder meeting with Interested Parties in order for AEPTCo to explain its Annual Update and to provide Interested Parties an opportunity to seek information and clarifications regarding the Annual Update (“Annual Update Meeting”). Notice of the Annual Update Meeting shall be provided via the PJM Exploder List no less than seven (7) calendar days prior to the meeting. The Annual Update Meeting shall be held no less than twenty (20) business days and no more than thirty (30) business days after the Annual Update Publication Date. AEPTCo will provide remote access to the Annual Update Meeting in order to ease burdens (e.g. travel costs) to ensure all Interested Parties have the opportunity to participate.

- e. The Annual Update posting for the Rate Year:
- (i) Shall provide, via the Formula Rate worksheets, sufficiently detailed supporting documentation for data (and all adjustments thereto or allocations thereof) used in the Formula Rate that are not stated in the FERC Form No. 1;<sup>5</sup>
  - (ii) Shall provide sufficient detail and sufficient explanation to enable Interested Parties to replicate the calculation of the Annual Update results from the FERC Form No. 1 and verify that each input to the Template is consistent with the requirements of the Formula Rate;
  - (iii) Shall identify:

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<sup>5</sup> It is the intent of the Formula Rate, including the supporting explanations and allocations described therein, that each input to the Formula Rate for purposes of determining the actual Net Revenue Requirement for a given Rate Year will be either taken directly from the FERC Form No. 1 or reconcilable to the FERC Form No. 1 by the application of clearly identified and supported information. If the referenced form is superseded, the successor form(s) shall be utilized and supplemented as necessary to provide equivalent information as that provided in the superseded form. If the referenced form is discontinued, equivalent information as that provided in the discontinued form shall be utilized.

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- A. Any change in accounting that affects inputs to the Template or the resulting charges billed under the Formula Rate (“Accounting Change”), including:
- i. The initial implementation of an accounting standard or policy;
  - ii. The initial implementation of accounting practices for unusual or unconventional items where FERC has not provided specific accounting direction;
  - iii. Correction of errors and prior period adjustments that impact the True-Up Adjustment calculation;
  - iv. The implementation of new estimation methods or policies that change prior estimates; and
  - v. Changes to income tax elections;
- B. Any items included in the Annual Update at an amount other than on a historic cost basis (e.g., fair value adjustments);
- C. Any reorganization or merger transaction during the previous year and an explanation of the effect of the accounting for such transaction(s) on inputs to the Annual Update;
- D. For each item identified pursuant to Sections 3.e.iii.A – C of these Protocols, the individual impact (in narrative format) of such changes on the Annual Update.
- (iv) Shall be subject to review and challenge in accordance with the procedures set forth in Sections 4, 5, and 6 of these Protocols.

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- (v) Shall be subject to review and challenge in accordance with the procedures set forth in these Protocols with respect to the prudence of any costs and expenditures included for recovery in the Annual Update; provided, however, that nothing in these Protocols is intended to modify the Commission's applicable precedent with respect to the burden of going forward or burden of proof under formula rates in such prudence challenges; and
  - (vi) Shall not seek to modify the Formula Rate and shall not be subject to challenge by any Interested Party seeking to modify the Formula Rate (i.e., any modifications to the Formula Rate will require, as applicable, an FPA section 205 or section 206 filing or initiation of a section 206 investigation).
- f. The following Formula Rate inputs shall be stated values to be used in the Formula Rate until changed pursuant to an FPA section 205 or section 206 proceeding: (i) rate of return on common equity ("ROE"); (ii) the depreciation and/or amortization rates as set forth in Attachment 10 to the Formula Rate template, and (iii) Post-Employment benefits other than Pension ("PBOP") charges pursuant to Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions.
- g. **Example – Timelines for 2018 Annual Projection and 2019 Annual Update:**  
On or before October 31, 2017, AEPTCo will determine the projected Net Revenue Requirement for the 2018 Rate Year. AEPTCo will post the Annual Projection for the 2018 Rate Year in accordance with Section 1 above. On or before May 25, 2019, AEPTCo will post its Annual Update, consisting of the actual Net Revenue Requirement and True-Up Adjustment for the 2018 Rate Year determined pursuant to



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Section 2 above. Such True-Up Adjustment will be reflected in the Annual Projection of the Net Revenue Requirement for the 2020 Rate Year posted on or before October 31, 2019.

#### **Section 4. Annual Review Procedures**

Each Annual Update and Annual Projection shall be subject to the following review procedures (“Annual Review Procedures”):

- a. Interested Parties shall have up to the later of two-hundred-ten (210) calendar days after the applicable Publication Date, or thirty (30) calendar days after the receipt of all responses to timely submitted information requests (unless such period is extended with the written consent of AEPTCo or by FERC order) (“Review Period”), to review the calculations and to notify AEPTCo in writing of any specific challenges to the Annual Update or Annual Projection (“Preliminary Challenge”), including challenges related to Accounting Changes. An Interested Party submitting a Preliminary Challenge must specify the inputs, supporting explanations, allocations, calculations, or other information to which it objects, and provide an appropriate explanation and documents to support its challenge. AEPTCo shall cause to be posted all Preliminary Challenges at a publicly accessible location on PJM’s internet website and OASIS, and a link to the website will be e-mailed to the PJM Exploder List.
- b. In the event of a Preliminary Challenge, AEPTCo will appoint a senior representative to work with the Interested Party (or its representatives) toward a resolution of the dispute.
- c. AEPTCo shall respond in writing to a Preliminary Challenge within twenty (20) business days of receipt, and its response shall notify the challenging party of the extent

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to which AEPTCo agrees or disagrees with the challenge. If AEPTCo disagrees with the Preliminary Challenge, it will provide the Interested Party with an explanation supporting the challenged inputs, explanations, allocations, calculations, or other information. AEPTCo shall promptly cause to be posted its responses to all Preliminary Challenges at a publicly accessible location on PJM's internet website and OASIS, and a link to the website will be e-mailed to the PJM Exploder List. Notwithstanding the foregoing, Preliminary Challenges and responses to Preliminary Challenges that include material deemed by AEPTCo to be confidential information will not be publicly posted but will be made available to requesting parties pursuant to a confidentiality agreement to be executed by AEPTCo and the requesting party.

- d. AEPTCo shall respond to all Preliminary Challenges submitted during the Review Period by no later than thirty (30) calendar days after the end of the Review Period.
- e. Interested Parties shall have up to one-hundred-fifty (150) calendar days after each annual Publication Date (unless such period is extended with the written consent of AEPTCo or by FERC order) to serve reasonable information requests on AEPTCo ("Discovery Period").
- f. Information requests shall be limited to what is necessary to determine: (i) the extent, effect, or impact of an Accounting Change; (ii) whether the Annual Update or Annual Projection fails to include data properly recorded in accordance with the Protocols; (iii) the proper application of the Template and procedures in the Protocols; (iv) the accuracy of data and consistency with the Formula Rate of the charges shown in the Annual Update or Annual Projection; (v) the prudence of the actual costs and expenditures, including procurement methods and cost control methodologies; (vi) the effect of any

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change to the underlying USofA or FERC Form No. 1; and (vii) any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the Formula Rate. The information requests shall not otherwise be directed to ascertaining whether the Formula Rate is just and reasonable. Information requests shall not solicit information concerning costs or allocations where the costs or allocation methods have been determined to be appropriate by FERC in the context of prior AEPTCo Annual Updates, except that such information requests shall be permitted if they (i) seek to determine if there has been a change in circumstances, (ii) are in connection with corrections pursuant to Section 6 of these Protocols, or (iii) relate to costs or allocations that have not previously been challenged and adjudicated by FERC.

- g. AEPTCo shall make a good faith effort to respond to reasonable information requests pertaining to the Annual Update or Annual Projection within fifteen (15) business days of receipt of such requests. AEPTCo shall respond to all reasonable information requests no later than thirty (30) calendar days after the end of the Discovery Period. AEPTCo will cause to be posted on the PJM website and OASIS all information requests from Interested Parties and AEPTCo's response(s) to such requests, and a link to the website will be e-mailed to the PJM Exploder List. Notwithstanding the foregoing, information and document requests and responses to information and document requests that include material deemed by AEPTCo to be confidential information will not be publicly posted but will be made available to requesting parties pursuant to a confidentiality agreement to be executed by AEPTCo and the requesting party. Voluminous materials will be made available at a physical AEP site.

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- h. AEPTCo shall not claim that responses to information and document requests provided pursuant to these Protocols are subject to any settlement privilege in any subsequent FERC proceeding addressing AEPTCo's Annual Update or Annual Projection.
- i. To the extent AEPTCo and any Interested Party(ies) are unable to resolve disputes related to information requests submitted in accordance with these Annual Review Procedures, AEPTCo or the Interested Party may petition the FERC to appoint an Administrative Law Judge as a discovery master to resolve the discovery dispute(s) in accordance with these Protocols and consistent with the FERC's discovery rules.
- j. Preliminary Challenges or Formal Challenges (as described in Sections 4 and 5) related to Accounting Changes shall be treated in the same manner under these Protocols as other challenges to the Annual Update or Annual Projection. Failure to make a Preliminary Challenge with respect to an Accounting Change in an Annual Update or Annual Projection shall not act as a bar with respect to a Formal Challenge with respect to that Annual Update or Annual Projection provided that the Interested Party submitted a Preliminary Challenge with respect to one or more other issues. Nor shall such failure bar a subsequent Preliminary Challenge related to a subsequent Annual Update or Annual Projection to the extent such Accounting Change affects the subsequent Annual Update or Annual Projection.
- k. If a change made by AEPTCo to its accounting policies, practices, or procedures, or the application of the Formula Rate, is found by the FERC to be unjust, unreasonable, or unduly discriminatory or preferential, then the calculation of the charges to be assessed during the Rate Year then under review, and the charges to be assessed during any subsequent Rate Years, including any True-up Adjustments, shall not include such

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change, but shall include any remedy that may be prescribed by FERC in the exercise of its discretion as of the effective date of such remedy, to ensure that the Formula Rate continues to operate in a manner that is just, reasonable, and not unduly discriminatory or preferential.

**Section 5. Resolution of Challenges**

- a. Interested Parties shall have up to two –hundred-seventy (270) days following the applicable Publication Date (unless such period is extended with the written consent of AEPTCo or by FERC order), to file a challenge with the FERC (“Formal Challenge”). Such Formal Challenge shall be submitted in the same docket as the AEPTCo informational filing and shall be served on AEPTCo by electronic service on the date of such filing in accordance with Section 385.2010(f)(3) of the Commission’s regulations. Subject to any applicable confidentiality and Critical Energy Infrastructure Information restrictions, all information and correspondence produced by AEPTCo pursuant to these Protocols may be included in any Formal Challenge or other FERC proceeding relating to the Formula Rate.
- b. Formal Challenges are to be filed pursuant to these Protocols, rather than under rule 206, and shall:
  - (i) Clearly identify the action or inaction which is alleged to violate the Formula Rate Template or Protocols;
  - (ii) Explain how the action or inaction violates the filed rate Template or Protocols;
  - (iii) Set forth the business, commercial, economic or other issues presented by the action or inaction as such relate to or affect the party filing the Formal Challenge, including

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- A. The extent or effect of an Accounting Change;
  - B. Whether the Annual Update or Annual Projection fails to include data properly recorded in accordance with these Protocols;
  - C. The proper application of the Template and procedures in these Protocols;
  - D. The accuracy of the data and consistency with the Formula Rate of the charges shown in the Annual Update or Annual Projection;
  - E. The prudence of actual costs and expenditures;
  - F. The effect of any change to the underlying Uniform System of Accounts or the FERC Form No. 1; or
  - G. Any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the Template.
- (iv) Make a good faith effort to quantify the financial impact or burden (if any) created for the party filing the Formal Challenge as a result of the action or inaction;
- (v) State whether the issues presented are pending in an existing Commission proceeding or a proceeding in any other forum in which the filing party is a party, and if so, provide an explanation why timely resolution cannot be achieved in that forum;
- (vi) State the specific relief or remedy requested, including any request for stay or extension of time, and the basis for that relief;

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- (vii) Include all documents that support the facts in the Formal Challenge in possession of, or otherwise attainable by, the filing party, including, but not limited to, contracts and affidavits; and
  - (viii) State whether the filing party utilized the Preliminary Challenge procedures described in these Protocols to dispute the action or inaction raised by the Formal Challenge, and, if not, describe why not.
- c. Preliminary and Formal Challenges shall be limited to issues that may be necessary to determine: (i) the extent or effect of an Accounting Change; (ii) whether the Annual Update or Annual Projection fails to include data properly recorded in accordance with these Protocols; (iii) the proper application of the Formula Rate and procedures in these Protocols; (iv) the accuracy of data and consistency with the Formula Rate of the calculations shown in the Annual Update and Annual Projection; (v) the prudence of actual costs and expenditures; (vi) the effect of any change to the underlying Uniform System of Accounts or FERC Form No. 1; or (vii) any other information that may reasonably have substantive effect on the calculation of the charge pursuant to the formula.
- d. Failure to raise an issue in a Preliminary Challenge shall not bar an Interested Party from raising that issue in a Formal Challenge, provided the Interested Party submitted a Preliminary Challenge during the Review Period with respect to one or more other issues. Failure to pursue an issue through a Preliminary Challenge or to lodge a Formal Challenge regarding any issue as to a given Annual Update shall bar pursuit of such issue with respect to that Annual Update, but shall not bar pursuit of such issue or the

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lodging of a Formal Challenge as to such issue as it relates to a subsequent Annual Update.

- e. Any response by AEPTCo to a Formal Challenge must be submitted to the FERC within thirty (30) calendar days of the date of the filing of the Formal Challenge, and shall be served on the filing party(ies) and the PJM Exploder List on the date of such filing.
- f. In any Formal Challenge proceeding concerning an Annual Update (including corrections), Annual Projection, or Accounting Change(s), AEPTCo shall demonstrate the justness and reasonableness of the rate resulting from its application of the Formula Rate by demonstrating that it [has correctly applied the terms of the Formula Rate consistent with these Protocols and that it followed the applicable requirements and procedures in applying the Formula Rate](#). Nothing herein is intended to alter the burdens applied by FERC with respect to prudence challenges.
- g. Except as specifically provided herein, nothing herein shall be deemed to limit in any way the right of AEPTCo to file unilaterally, pursuant to section 205 of the FPA and the regulations thereunder, an application seeking changes to the Formula Rate or to any of the stated value inputs requiring a section 205 filing under these Protocols (including, but not limited to, ROE and depreciation and amortization rates), or the right of any other party or the Commission to seek such changes pursuant to section 206 of the FPA and the regulations thereunder.
- h. AEPTCo may, at its discretion and at a time of its choosing, make a limited filing pursuant to section 205 to modify stated values in the Formula Rate (i) for amortization and depreciation rates, (ii) to correct obvious errors or omissions in the Formula Rate such as would result from changes to the FERC Form No. 1, or (iii) PBOP charges



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pursuant to Statement of Financial Accounting Standards No. 106, Employers' Accounting for Postretirement Benefits Other Than Pensions. The sole issue in any such limited section 205 proceeding shall be whether such proposed change(s) is just and reasonable, and it shall not address other aspects of the Formula Rate or impose upon AEPTCo any burden with respect to such other aspects of the Formula Rate.

**Section 6. Changes to Annual Updates**

If AEPTCo determines or concedes that corrections to the Annual Update are required, whether under Sections 4 or 5 of these Protocols, including but not limited to those requiring corrections to its FERC Form No. 1, or input data used for a Rate Year that would have affected the Annual Update for that Rate Year, such corrections shall be reflected as adjustments in the Annual Update for the next Rate Year, with interest calculated in accordance with the FERC Interest Rate (as determined pursuant to 18 C.F.R. § 35.19a). This reconciliation mechanism shall apply in lieu of mid-Rate Year adjustments.

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## **Appendix A to Attachment H-20A**

### **American Electric Power Service Corporation**

**Docket No. ER10-355**

### **Transmission Formula Rate Settlement**

**For**

**AEP Appalachian Transmission Company Inc., AEP Indiana Michigan Transmission Company Inc., AEP Kentucky Transmission Company Inc., AEP Ohio Transmission Company Inc., and AEP West Virginia Transmission Company Inc.**

**(collectively “AEP” or “the AEP East Transmission Companies”)**

### **Cost of Service and Formula Rate Settlement Principles**

The following Cost of Service and Formula Rate Settlement Principles are a part of the Settlement Agreement being filed \_\_\_\_\_, 2010 in Docket No. ER10-355 (“the Settlement”):

#### **I. Transmission Formula Rate Design.**

##### **A. Applicability of Wholesale Ratemaking Practices.**

1. Only those costs that are recoverable pursuant to FERC accounting and/or ratemaking practices may be recovered by the AEP East Transmission Companies through its FERC transmission formula rate.
2. Adjustments to the AEP cost of service formula rate templates - AEP shall take steps to have PJM include in the rate template used to calculate charges to transmission customers all of the adjustments, modifications, and corrections identified in the new formula rate templates included with this Statement of Settlement Principles.
3. Costs of transmission studies
  - a. All costs of transmission studies (*e.g.*, studies of requested new or modified delivery or interconnection points, System Impact Studies and Facilities Studies) associated with service to affiliated (*e.g.*, AEP East Transmission Companies) and non-affiliated customers shall be allocated and charged to customers on a comparable and consistent basis.
  - b. The costs of such studies shall be accounted for in one of the following ways:

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- i. The study costs are not included in the formula rate, expressly or otherwise; or
  - ii. If the costs are included in the formula rate but also are directly assigned to the entity requesting the study, then the formula rate also will include a revenue credit equal to the amount of study costs that are directly assignable to the requesting entity. Such revenue credit shall be reflected in the formula rate regardless of the specific accounting applied to the costs and revenues.
  - iii. Study costs that are not directly assigned to the requesting entity may be treated as a system-wide cost in applying the formula rate, but only if that treatment is applied to all such study costs incurred for any requesting entity.
- c. Transmission service base rate charges under the formula shall be calculated in a manner that allocates the costs of transmission studies to, and recovers those costs from, transmission customers (including the AEP East Operating Companies) on a comparable basis, without regard to whether the costs of those studies are directly assigned or rolled-in, and without regard to whether any particular studies are performed for affiliated or non-affiliated customers.

## B. Rate Base

1. The transmission Rate Base used in the annual update shall be based upon the end-of-year net transmission plant balance from the prior calendar year FERC Form 1 ("FF1"). The true-up of the formula rate, however, shall utilize a Transmission Rate Base that incorporates the arithmetic average of the most recent actual values for beginning-of-year and end-of-year net transmission plant (that is, the average of beginning and end of calendar year balances for plant in service and accumulated depreciation).
  - a. The revenue requirements billed each July and running through June of the next year will be based on a test-year-end rate base style annual transmission revenue requirement ("ATTR") calculation. The initial revenue requirements will be billed July 1, 2010, through June 30, 2011, and will be based on the 2009 expenses and year-end rate base plus projected 2010 calendar transmission plant in service (TPIS) additions. The following year

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the projected revenue requirements will be based on the 2010 expenses and year-end TPIS balances obtained from the 2010 FF1 plus projected 2011 calendar year TPIS additions.

- b. In 2011, the estimated ATRR that was effective during 2010 will be reconciled (“trued-up”) with an ATRR that is calculated based on actual 2010 calendar year expenses and rate base reflecting the arithmetic average of the beginning-of-year and end-of-year balances for TPIS and accumulated depreciation. The actual 2010 ATRR (“true-up”) to be used for such reconciliation will be posted or otherwise provided to customers in May 2011 at the same time that the projected ATRR to be used for billing purposes during the second half of 2011 (and the first half of 2012) is posted or otherwise provided to customers.
  - c. For the true-up of prior year charges, AEP East Transmission Companies will calculate the difference between the estimated ATRR for the prior calendar year that was used for billing purposes and the actual ATRR for that prior calendar year, calculated as described in paragraph B.1.b. above. The difference between the two values (plus interest at the applicable FERC refund interest rates) shall be reflected as an addition to or offset against billed charges for transmission service July 1<sup>st</sup> of the current year through June 30 of the following year. The interest rate will be calculated as per section 35.19a of the Commission’s regulations.
  - d. The sequence outlined in paragraphs B.1.a, B.1.b and B.1.c above will be repeated each year.
2. Cash working capital for each AEP East Transmission Company will be calculated as 1/8 of transmission-related O&M expense not including any portion of A&G expense allocated to transmission.
  3. AEP will provide as a part of its informational filing each May detail regarding ADIT balances for the historical year that is no less detailed, and selectively more detailed as described in this section, than what is included in FERC Standard Filing Requirements for Period I Statement AF (Accts. 281, 282, and 283) and Statement AG (Acct. 190). In addition, AEP’s information on ADIT will distinguish between utility and non-utility ADIT in order to ensure compliance with Section I.D.2.c.i., below.
  4. AEP will be permitted to include in Rate Base in the formula rate such portion of AEP’s FAS 87 cash investment in Pre-Paid Pension cost recorded in FERC Account 165 as may be incurred for AEP System

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employees providing service to the AEP Transmission Companies. If AEP elects to include such costs in Rate Base, it will use a labor expense allocation factor to allocate the total company amount to the transmission cost of service (“TCOS”).

### C. Expenses

1. The formula rate shall allocate property tax expense based on the methodology of Worksheet Sheet H using the as-filed methodology.
2. The formula rate shall reflect the applicable state and federal statutory tax rates in effect during the period the calculated estimated unit charges are applicable. If statutory tax rates change during such period, the effective tax rates used in the formula shall be weighted by the number of days the pre-change rate and the post-change rate each is in effect (*e.g.*, if a 40% rate is in effect nine months and a 32% rate is in effect 3 months, the weighted rate for the 12-month period would be 38%, which reflects  $40\% \times 0.75 + 32\% \times 0.25 = 38\%$ ).
3. The formula shall include only expenses that are directly related to or properly allocable to transmission service.
4. Expenses recorded in FERC Accounts 928 (Regulatory Commission Expense), 930.1 (Safety Related Advertising) and 930.2 (Miscellaneous General Expenses) that are not directly related to or properly allocable to transmission service will be removed from the TCOS. If AEP includes any expenses booked to these accounts in future ATRR updates, AEP must provide supporting information demonstrating that the underlying activities are directly related to providing transmission service.
5. The AEP Transmission Companies will record depreciation expense using composites of the depreciation rates attached as Appendix A.1.2, which rates will not be changed absent an Order of the Commission approving such change in a Section 205 or 206 filing at FERC to seek a change in depreciation rates.
6. PBOP Expense
  - i. Post employment benefit expenses other than pensions (PBOP) included in each update of the AEP Transmission Companies’ formula rate will be fixed based on a rate reflecting the ratio of the AEP System-wide PBOP expense divided by the AEP System-wide total employee direct labor expense (PBOP Rate). The initial PBOP Rate shall be \$0.094 per dollar cost of each AEP Transmission Company’s direct labor expense.

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- ii. The calculation of PBOP expense includable in each Annual Update of the formula rate shall be made pursuant to Worksheet O, which is included in Attachment F to the Settlement Agreement, and which will be included in the formula rate. Using Worksheet O, each AEP Transmission Company will, as part of each Annual Update, compare the allowable PBOP expense, based on the PBOP Rate, to its actual PBOP expense in the prior calendar year in order to determine the adjustment required to increase or decrease the actual PBOP expense to the allowable amount.
- iii. As part of the annual update process, AEP will provide to transmission customers, and include in its informational filing, an independently prepared actuarial report (“Annual Actuarial Report”) that includes a ten (10) year forecast of PBOP expenses when that report becomes available. The Settling Parties anticipate that the Annual Actuarial Report normally will be received by the time the annual update is posted or otherwise provided to customers each year.
- iv. During the annual update process conducted in 2014, and every four years thereafter, Worksheet O will be used to determine whether, and if so by what amount, the PBOP allowance rate (\$PBOP per \$ Direct O&M Labor) should be adjusted going forward for the next four years (PBOP Rate Review). If the Annual Actuarial Report issued during the year of any PBOP Rate Review projects PBOP costs during the next four years that, when allocated to the AEP Transmission Companies based on their projected direct labor expenses over that same projected four-year period, absent a change in the PBOP Rate, will likely cause the AEP East Transmission Companies to over or under collect their cumulative PBOP expenses by more than 20% of the projected next four year's total PBOP expense, taking into account the net over or under collection of such expenses during the previous four years, the PBOP Rate shall be adjusted. In order to determine whether continued use of the then approved PBOP Rate is likely to result in the AEP Companies' incurrence of a cumulative allowance of PBOP costs under the formula rate will result in a cumulative over or under-recovery of actual PBOP expenses exceeding 20% over the subsequent four year period, Worksheet O will be used to determine the following PBOB expense metrics:
  - (a) the level of cumulative over or under collections of PBOP expense during the time since the PBOP allowance rate was last set, including carrying costs based on the weighted average cost of capital ("WACC") each year from the

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Formula rate True-Up transmission cost-of-service ("TCOS") analyses;

- (b) the cumulative net present value ("CNPV") of projected PBOP costs during the next four years, as estimated by the then current Actuarial Report, assuming a discount rate equal to the True-Up TCOS WACC for the immediately prior calendar year ("Prior Year WACC"); and
- (c) the CNPV of continued collections over the next four years based on the projected AEP Transmission Companies' direct labor expenses and the then effective PBOP allowance rate, assuming a discount rate equal to the Prior Year WACC.

If the absolute value of (a) + (b) - (c) exceeds 20% of (b), then the PBOP allowance rate used in the formula rate calculation shall be changed to the value that will cause the projected result of (a) + (b) - (c) to equal zero. If the projected over or under collection during the next four years, (a) + (b) - (c), is less than 20% of (b), then the PBOP Rate will continue in effect for the next four years at the then effective rate.

- v. If it is determined through the foregoing procedure that the AEP Companies' cumulative PBOP Rate will over-recover or under-recover actual PBOP expenses by more than 20% over the subsequent four-year period, AEP shall make a filing under FPA § 205 to change the PBOP Rate stated in the formula rate. No other changes to the formula rate may be included in that filing. Neither AEP nor any Settling Party may raise in connection with such filing any issue affecting the formula rate other than the level of allowable PBOP Rate.
- vi. The foregoing procedure for required updating of the formula rate's stated PBOP Rate shall not affect either: (i) AEP's right to make filings under FPA § 205 to address aspects of the formula rate other than PBOP expense, or (ii) customers' rights to make filings under FPA § 206 to address aspects of the formula rate other than the PBOP expense.

## 7. Formation Costs

- a. One half of the AEP Transmission Companies' Formation costs incurred before June 30, 2010 will be included in the formula rate, with such amount to be allocated equally among the AEP Transmission Companies and amortized over four years. There will be no carrying charges on the unamortized balance of

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recoverable Formation costs. Formation costs incurred after June 30, 2010 shall not be included in the transmission formula rates of the AEP Transmission Companies (or the AEP Operating Companies) and shall not be otherwise recoverable in FERC-regulated rates. For purposes of such rate exclusion, post-June 30, 2010 formation costs include, but are not limited to, all costs associated with obtaining any necessary federal, state or local approvals for formation/operation of the AEP Transmission Companies, all costs associated with establishment of the AEP Transmission Companies and the evaluation of how to accomplish same, and any other category of cost that AEP treated as a formation cost for purposes of its request to recover pre-June 30, 2010 formation costs. In its Annual Update filings, AEP Transmission Companies shall provide information sufficient to permit verification that such formation costs have been excluded from the formula rates. AEP reserves the right to seek recovery of post-June 30, 2010 formation costs associated with obtaining necessary state or local approvals (regarding state-related costs) from the applicable state regulatory commission.

D. Capital Structure, Cost of Capital and Return on Equity

1. Return on Equity

- a. The Settlement shall establish on a non-precedential basis a base return on common equity ("Base ROE") used in the OATT transmission formula rates applicable to the AEP East zone of 10.99%, plus a 50 basis point adder for continued RTO participation (for a total of 11.49% ROE). This ROE shall remain in effect for a period of at least 36 months.
- b. The Settlement shall not establish a lower or upper end of the zone of reasonableness, but for a period of 36 months from the effective date of the formula rate, AEP will limit any request for an incentive ROE pursuant to Order No. 679 and Order No. 679-A to not more than the total ROE plus 125 basis points; (*i.e.*, 12.74% total incentive ROE). Such incentive ROE must be within the then-applicable zone of reasonableness as determined in a Section 205 or 206 proceeding. Settling Parties reserve the right to protest any request by AEP for incentive rates including any request for an incentive ROE.

2. Capital Structure / Cost of Capital:

- a. In the annual true-up calculations, AEP shall use the arithmetic average of the beginning-of-year and end-of-year balances of long-



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term debt, common and preferred equity, and shall use actual calendar year long term debt interest expenses, preferred dividends, and approved ROE. The long term debt balances and long term debt cost rate shall not include any amounts related to hedging activity.

- b. AEP shall use the most recent available FF1 actual end-of-year balances of outstanding long term debt (less the balance of any hedges), preferred equity, and common equity, in the projected ATRR used for billing purposes. The estimated cost rate for long term debt for the Projected Rate Year shall reflect the prior calendar year actual cost of long term debt (including periodic expenses such as remarketing and letter of credit fees, and related amortizations, as applicable, of issuance/reacquisition cost and discount or premium amortizations) for debt outstanding during the full year and the annualized cost of any issuances that occur after January 1 of the prior calendar year for a full twelve months coupon interest expense. However, any amortization of gains or losses on interest rate derivative hedging shall be excluded from long-term-debt cost annual and annualized expenses. AEP will reflect the calculation of its debt cost in Worksheets L and M.
- c. AEP is not restricted from hedging at its discretion, and all interest rate hedge gains and losses will be excluded from the formula rate for both the Projected and True-Up rates.
- d. AEP East Transmission Companies will establish LTD and Equity investments in the AEP East Transmission Companies as soon as is practicable (actual capital structure and long term debt costs and preferred equity costs). Until that time, the AEP East Transmission Companies will use the actual consolidated (weighted composite) capital structure and LTD cost rate of the AEP Operating Companies in PJM {The AEP Operating Companies in PJM are: Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, and Wheeling Power Company} subject to a 50% equity ratio cap, as further explained below. Appendix A-1.1 to this Attachment A-1 describes the manner in which the weighted average composite capital structure and cost of long term debt and preferred equity costs of the AEP East Operating Companies in PJM shall be calculated.
- e. In transitioning from the use of the proxy composite capital cost of the East Operating Companies in PJM to an actual capital structure, long term debt cost and preferred equity cost, a transitioning East Transmission Company's actual capital structure

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and cost rates will be implemented for the Projected TCOS in the first formula rate Annual Update after the issuance of long-term debt or allocation of debt financing from an associated company establishing the transitioning East Company's actual capital structure and cost of debt. The True-Up TCOS in that Annual Update will continue to be based on the East Operating Companies' composite capital structure and LTD cost, and preferred equity costs.

- f. The first long term debt in the actual capital structure of an AEP Transmission Company is expected to be an allocation of proceeds from a debt issuance of AEP Transmission Company LLC or AEP Transmission Holding Company LLC (refer to page 7 of Exhibit AEP 100 for the AEPTCo Corporate Structure). The AEP Transmission Companies {The AEP Transmission Companies include the AEP East Transmission Companies and AEP Southwestern Transmission Company Inc., and AEP Oklahoma Transmission Co., Inc.} would draw debt financing from this issuance, as well as equity infusions from AEP Transmission Company LLC or AEP Transmission Holding Company LLC, based on their individual expenditure levels to establish their actual capital structure. The interest rate of this debt financing, along with any associated issuance costs incurred (not to include any costs related to any hedging activities), would define the initial cost of debt for the affected AEP Transmission Companies. This initial debt financing and all subsequent allocations of associated company (AEP Transmission Company LLC or AEP Transmission Holding Company LLC or a higher affiliate in AEP, Inc.) long term debt shall be recorded in Account 430 Advances from Associated Companies in the FERC Form No. 1 reports of the affected AEP Transmission Companies. However, long term debt issuances and equity of the AEP Operating Companies shall not be used to finance debt or equity in the actual capital structure of the AEP Transmission Companies. The debt cost rate of long term debt issuances allocated from associated companies to the AEP Transmission Companies shall be at cost.
- g. In the event there is a construction draw down loan, the Companies will adopt the yield to maturity (YTM) approach filed in the PATH Settlement Agreement Docket No. ER08-386-000 in determining the cost of debt for such draw down loan[s], and illustrated in Attachment A.1.3. There is an annual and final (at end of loan) true-up of YTM, consistent with actual debt cost experience. Workpapers showing the calculation of the yield to maturity cost and true-up shall be included in the Annual Update(s) in which such charges are proposed to be included in the Projected rate.

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- h. When an individual East Transmission Company has an actual capital structure, which is first achieved when the Transmission Company issues its own first long term debt issuance in its own name, or the individual Transmission Company has debt financing specifically allocated from an issuance by AEP Transmission Company LLC or AEP Transmission Holding Company LLC or a higher AEP corporate entity as described in (f) above, the actual long term debt cost and capital structure of that individual East Transmission Company shall be used in the Projected and True Up formula rates for that individual company, subject to a 50% Equity Ratio cap described below and subject to transition year treatment as described in (e) of this section. The True-up and Projected ATRR of the remaining East Transmission Companies which have not yet issued their own long term debt, or received a specific allocation of debt financing by an associated company for the purpose of rate making, shall continue to be based on the consolidated (composite) actual weighted average capital structure, long term debt cost, and preferred equity cost of all the East Operating Companies in PJM (including the costs of the operating company geographically associated with the individual transmission company which has established an actual capital structure and long-term debt cost).
- i. In applying the formula rate, the balance amounts of common equity, used in determining the weighted average cost of capital to be used for the AEP East Transmission Companies, shall not exceed 50% percent of the total projected and true-up capitalization (“Equity Cap”), regardless of the actual amounts of common equity capital outstanding. The Equity Cap applies to both the implementation of the consolidated East Operating Company’s actual capital structure and to the implementation of an individual East Transmission Company actual capital structure. The Equity Cap can be removed or adjusted only after June 30, 2013 and only through a filing under section 205 or 206 of the Federal Power Act. When applied to the consolidated East Operating Companies’ actual capital structure, the individual Operating Company equity caps pursuant to the East Operating Companies’ settlement in Docket ER08-1329 shall be applied first before the 50% Equity Cap pursuant to the instant settlement is applied to the weighted composite East Operating Companies’ capital structure. The composite weighted average long term debt cost rate of the East Operating Companies, exclusive of hedging costs and Indiana-Michigan Operating Company’s spent nuclear fuel disposal funding costs, shall apply.
- j. If the percentage of common equity in the East Operating

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Companies' composite (consolidated) capitalization or any AEP East Transmission Company's actual capitalization exceeds the applicable Equity Cap, the amount of common equity exceeding the Equity Cap shall be assigned the same cost rate as long-term debt in the formula rate cost of capital calculations.

- E. Revenue Credits-- The following principles shall be stated in the formula rate:
1. If the AEP East Transmission Companies have any directly assigned transmission facilities, the revenue credits in the AEP East formula rate shall include all revenues associated with those directly assigned transmission facilities, irrespective of whether the loads of the customer are included in the formula rate divisor; provided, however, such addition to revenue credits shall not be reflected if the costs of such directly assigned transmission facilities are not included in the transmission plant balances on which the formula rate ATRR is based.
  2. All transmission services revenues not credited to customers in monthly PJM billings shall be included in the formula rate calculation as reductions to the ATRR. Such amounts shall include transmission revenues received from PJM or other PJM Transmission Owners where the associated loads are not in the AEP Zone divisor, unless the revenues are attributable to AEP's base transmission rate charges for Network Integration Transmission Service ("Network Service") or long-term firm Point-to-Point Transmission Service.
- F. Allocators.
1. The allocations of Administrative & General (A&G) expenses identified by three-digit FERC account in the Formula Rate Template and Worksheet F, Supporting Allocation of Specific O&M or A&G Expenses, may not be changed except through a filing under FPA § 205 or 206. If AEP wishes to reflect new O&M or A&G expenses or accounts in future updates, it must include in such § 205 filing: (i) a specification of the basis on which it proposes to allocate a portion of such costs as is properly assignable to wholesale transmission service, and (ii) documentation sufficient to demonstrate the reasonableness of its proposed allocation factor consistent with applicable Commission precedent.
  2. No Account 565 costs other than inter-company charges that net out (such as lease arrangements and transmission equalization payments/receipts between AEP companies) will be included in the TCOS, unless first approved by FERC following a separate FPA § 205 filing by AEP.
  3. AEP will include in the Annual Update to the formula rate, notification of any change in the use of established allocation factors (change from one

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factor to another established allocation factor for a cost applicable to AEP Transmission Companies). Any new allocation factor (not previously approved by the Securities and Exchange Commission or the FERC) will be filed with the FERC for approval in a Section 205 proceeding before being implemented, and AEP will provide notification in the Annual Update of the implementation of a newly created allocation factor that may affect costs allocated to the AEP Transmission Companies. In addition, AEP shall include notification in the Annual Updates of the establishment of any new regulated and un-regulated income-producing affiliates or operating divisions with new income-producing operations.

## **II. Application of Interest Rate Calculation in True-Up**

AEP shall include an interest rate worksheet as Attachment C to the Settlement Agreement specifying its procedure for applying interest to true-up over or under recoveries.

## **III. Formula Implementation Protocols**

The Formula Rate Implementation Protocols shall be adopted as set forth in Attachment A-2.

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## Appendix A-1.1

**AEP East Consolidated Utility Capital Structure**  
**Consolidation of Operating Companies' Capital Structure @ 12-31-2009**  
 Worksheet Q Page 1

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b><u>Development of Long Term Debt Balances at Year End</u></b>							
1	Bonds (112.18.c&d)	-	-	-	-	-	-
2	Less: Reacquired Bonds (112.19.c&d)	17,500,000	-	-	-	303,000,000	320,500,000
3	LT Advances from Assoc. Companies (112.20.c&d)	100,000,000	25,000,000	20,000,000	20,000,000	200,000,000	25,000,000
4	Senior Unsecured Notes (112.21.c&d)	3,419,099,201	1,692,000,000	530,000,000	-	3,351,580,000	-
5	Excludes Spent Nuc Fuel Disp Fund Less: Fair Value Hedges (See Note on Ln 7 below)	-	-	-	-	-	-
6	<b>Total Long Term Debt Balance</b>	3,501,599,201	1,717,000,000	550,000,000	20,000,000	3,248,580,000	25,000,000
7	NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (page 257, Column H of the FF1)						
<b><u>Development of Long Term Debt Interest Expense</u></b>							
8	Interest on Long Term Debt (256-257.33.i)	201,508,637	100,346,371	30,323,070	1,075,000	129,578,994	1,312,500
9	Amort of Debt Discount & Expense (117.63.c)	3,232,592	3,157,632	457,098	-	3,354,846	-
10	Amort of Loss on Reacquired Debt (117.64.c)	991,540	1,596,824	33,649	-	626,793	-
11	Less: Amort of Premium on Debt (117.65.c)	-	-	-	-	-	-
12	Less: Amort of Gain on Reacquired Debt (117.66.c)	-	1,712	-	-	-	-
13	Less: Hedge Interest on pp 256-257(i)	2,569,395	1,551,518	92,956	-	(7,185,191)	-
14	<b>LTD Interest Expense</b>	203,163,374	103,547,597	30,720,861	1,075,000	140,745,824	1,312,500

**Development of Cost of Preferred Stock and Preferred Dividends**

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15	Dividend Rate (p. 250-251. 7.a)	4.50%	4.125%		4.08%		
16	Par Value (p. 250-251. 8.c)	\$ 100.00	\$ 100.00		\$ 100.00		
17	Shares Outstanding (p.250-251. 8.e)	177,518	55,301		14,595		
18	Monetary Value (Ln 16 * Ln 17)	17,751,800	5,530,100	-	-	1,459,500	24,741,400
19	Dividend Amount (Ln 15 * Ln 18)	798,831	228,117	-	-	59,548	1,086,495
20	Dividend Rate (p. 250-251. 7.a)		4.12%		4.20%		
21	Par Value (p. 250-251. 8.c)		\$ 100.00		\$ 100.00		
22	Shares Outstanding (p.250-251. 8.e)		11,055		22,824		
23	Monetary Value (Ln 21 * Ln 22)	-	1,105,500	-	-	2,282,400	3,387,900
24	Dividend Amount (Ln 20 * Ln 23)	-	45,547	-	-	95,861	141,407
25	Dividend Rate (p. 250-251. 7.a)		4.56%		4.40%		
26	Par Value (p. 250-251. 8.c)		\$ 100.00		\$ 100.00		
27	Shares Outstanding (p.250-251. 8.e)		14,412		31,482		
28	Monetary Value (Ln 26 * Ln 27)	-	1,441,200	-	-	3,148,200	4,589,400
29	Dividend Amount (Ln 25 * Ln 28)	-	65,719	-	-	138,521	204,240
30	Dividend Rate (p. 250-251. 7.a)				4.50%		
31	Par Value (p. 250-251. 8.c)				\$ 100.00		
32	Shares Outstanding (p.250-251. 8.e)				97,363		
33	Monetary Value (Ln 31 * Ln 32)	-	-	-	-	9,736,300	9,736,300
34	Dividend Amount (Ln 30 * Ln 33)	-	-	-	-	438,134	438,134
35	<b>Preferred Stock (Lns 18, 23, 28,33)</b>	17,751,800	8,076,800	-	-	16,626,400	42,455,000
36	<b>Preferred Dividends (Lns 19, 24, 29,34)</b>	798,831	339,382	-	-	732,063	1,870,276
<b><u>Development of Common Equity</u></b>							
37	Proprietary Capital (112.16.c)	2,789,329,067	1,680,859,984	431,783,697	21,335,470	3,251,321,953	43,904,852
38	Less: Preferred Stock (Ln 35 Above)	17,751,800	8,076,800	-	-	16,626,400	42,455,000
39	Less: Account 216.1 (112.12.c)	2,593,528	(581,331)	-	-	-	4,076,997
40	Less: Account 219.1 (112.15.c)	(50,254,363)				(118,458,118)	(1,749,500)

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	(21,700,504)	(600,942)	5,560				(242,751,398)
41 <b>Balance of Common Equity</b>	2,819,238,102	1,695,065,019	432,384,639	21,329,910	3,353,153,671	45,654,352	9,774,589,576
<b><u>Calculation of Capital Shares</u></b>							
42 Long Term Debt (Ln 6 Above)	3,501,599,201	1,717,000,000	550,000,000	20,000,000	3,248,580,000	25,000,000	10,604,924,201
43 Preferred Stock (Ln 35 Above)	17,751,800	8,076,800	-	-	16,626,400	-	42,455,000
44 Common Equity (Ln 41 Above)	2,819,238,102	1,695,065,019	432,384,639	21,329,910	3,353,153,671	45,654,352	9,774,589,576
45 Total Company Structure	6,338,589,103	3,420,141,819	982,384,639	41,329,910	6,618,360,071	70,654,352	20,421,968,777
46 LTD Capital Shares (Ln 42 / Ln 45)	55.24%	50.20%	55.99%	48.39%	49.08%	35.38%	51.93%
47 Preferred Stock Capital Shares (Ln 43 / Ln 45)	0.28%	0.24%	0.00%	0.00%	0.25%	0.00%	0.21%
48 Common Equity Capital Shares (Ln 44 / Ln 45)	44.48%	49.56%	44.01%	51.61%	50.66%	64.62%	47.86%
49 <b>Equity Capital Share Limit</b>	50.00%	50.00%	50.00%	100.00%	51.00%	100.00%	50.00%
50 LTD Capital Shares with Capital Equity Cap	55.24%	50.20%	55.99%	48.39%	49.08%	35.38%	51.93%
51 Preferred Stock Capital Shares	0.28%	0.24%	0.00%	0.00%	0.25%	0.00%	0.21%
52 Common Equity Capital Shares with Capital Equity Cap	44.48%	49.56%	44.01%	51.61%	50.66%	64.62%	47.86%
<b><u>Calculation of Capital Cost Rate</u></b>							
53 LTD Capital Cost Rate (Ln 14 / Ln 6)	5.80%	6.03%	5.59%	5.38%	4.33%	5.25%	5.35%
54 Preferred Stock Capital Cost Rate (Ln 36 / Ln 35)	4.50%	4.20%	0.00%	0.00%	4.40%	0.00%	4.41%
55 Common Equity Capital Cost Rate	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b><u>Calculation of Weighted Capital Cost Rate</u></b>							
56 LTD Weighted Capital Cost Rate (Ln 50 * Ln 53)	3.21%	3.03%	3.13%	2.60%	2.13%	1.86%	2.78%
57 Preferred Stock Capital Cost Rate (Ln 51 * Ln 54)	0.01%	0.01%	0.00%	0.00%	0.01%	0.00%	0.01%
58 Common Equity Capital Cost Rate (Ln 52 * Ln 55)	5.11%	5.69%	5.06%	5.93%	5.82%	7.42%	5.50%
59 <b>Total Company Structure</b>	<b>8.33%</b>	<b>8.73%</b>	<b>8.18%</b>	<b>8.53%</b>	<b>7.96%</b>	<b>9.28%</b>	<b>8.29%</b>



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20A - Appendix A - AEPTCo

## Appendix A-1.1

**AEP East Consolidated Utility Capital Structure**  
**Consolidation of Operating Companies' Capital Structure @ 12-31-2008**  
 Worksheet Q Page 2

Line		Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b><u>Development of Long Term Debt Balances at Year End</u></b>								
60	Bonds (112.18.c&d)	-	-	-	-	-	-	-
61	Less: Reacquired Bonds (112.19.c&d)	17,500,000	100,000,000	-	-	85,000,000	-	294,745,000
62	LT Advances from Assoc. Companies (112.20.c&d)	100,000,000	-	20,000,000	20,000,000	200,000,000	25,000,000	465,000,000
63	Senior Unsecured Notes (112.21.c&d)							
63	Excludes Spent Nuc Fuel Disp Fund	3,114,740,790	1,217,000,000	400,000,000	-	2,594,450,000	-	8,768,935,790
64	Less: Fair Value Hedges (See Note on Ln 66 below)	-	-	-	-	-	-	-
65	<b>Total Long Term Debt Balance</b>	3,197,240,790	1,117,000,000	420,000,000	20,000,000	2,709,450,000	25,000,000	8,939,190,790
66	NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (p. 257, Column H of the FF1)							
<b><u>Development of Long Term Debt Interest Expense</u></b>								
67	Interest on Long Term Debt (256-257.33.i)	181,193,862	69,755,551	26,429,625	1,075,000	134,040,796	1,312,500	491,905,445
68	Amort of Debt Discount & Expense (117.63.c)	2,539,613	2,467,181	451,645	-	2,211,243	-	8,755,819
69	Amort of Loss on Reacquired Debt (117.64.c)	1,440,062	2,142,335	33,648	-	1,618,264	-	5,991,748
70	Less: Amort of Premium on Debt (117.65.c)	-	-	-	-	-	-	-
71	Less: Amort of Gain on Reacquired Debt (117.66.c)	-	-	-	-	-	-	-
72	Less: Hedge Interest on pp 256-257(i)	5,001,679	1,547,947	92,956	-	(1,250,297)	-	5,392,285
73	<b>LTD Interest Expense</b>	180,171,858	72,817,120	26,821,962	1,075,000	139,120,600	1,312,500	501,260,727

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**Development of Cost of Preferred Stock and Preferred Dividends**

74	Dividend Rate (p. 250-251. 7.a)	4.50%	4.125%		4.08%		
75	Par Value (p. 250-251. 8.c)	\$ 100.00	\$ 100.00		\$ 100.00		
76	Shares Outstanding (p.250-251. 8.e)	177,520	55,335		14,595		
77	Monetary Value (Ln 75 * Ln 76)	17,752,000	5,533,500	-	-	1,459,500	- 24,745,000
78	Dividend Amount (Ln 74 * Ln 77)	798,840	228,257	-	-	59,548	- 1,086,644
79	Dividend Rate (p. 250-251. 7.a)		4.12%		4.20%		
80	Par Value (p. 250-251. 8.c)		\$ 100.00		\$ 100.00		
81	Shares Outstanding (p.250-251. 8.e)		11,055		22,824		
82	Monetary Value (Ln 80 * Ln 81)	-	1,105,500	-	-	2,282,400	- 3,387,900
83	Dividend Amount (Ln 79 * Ln 82)	-	45,547	-	-	95,861	- 141,407
84	Dividend Rate (p. 250-251. 7.a)		4.56%		4.40%		
85	Par Value (p. 250-251. 8.c)		\$ 100.00		\$ 100.00		
86	Shares Outstanding (p.250-251. 8.e)		14,412		31,482		
87	Monetary Value (Ln 85 * Ln 86)	-	1,441,200	-	-	3,148,200	- 4,589,400
88	Dividend Amount (Ln 84 * Ln 87)	-	65,719	-	-	138,521	- 204,240
89	Dividend Rate (p. 250-251. 7.a)				4.50%		
90	Par Value (p. 250-251. 8.c)				\$ 100.00		
91	Shares Outstanding (p.250-251. 8.e)				97,373		
92	Monetary Value (Ln 90 * Ln 91)	-	-	-	-	9,737,300	- 9,737,300
93	Dividend Amount (Ln 89 * Ln 92)	-	-	-	-	438,179	- 438,179
94	<b>Preferred Stock (Lns 77, 82, 87,92)</b>	17,752,000	8,080,200	-	-	16,627,400	- 42,459,600
95	<b>Preferred Dividends (Lns 78, 83, 88,93)</b>	798,840	339,522	-	-	732,108	- 1,870,470
<b><u>Development of Common Equity</u></b>							
96	Proprietary Capital (112.16.c)	2,394,342,663	1,444,357,731	398,008,673	25,031,105	2,438,571,961	37,950,872 7,987,702,880
97	Less: Preferred Stock (Ln 94 Above)	17,752,000	8,080,200	-	-	16,627,400	- 42,459,600

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98	Less: Account 216.1 (112.12.c)	2,462,578	(1,510,668)	-	-	-	-	11,153,901
99	Less: Account 219.1 (112.15.c)	(60,225,378)	(20,233,842)	59,584	-	(133,858,575)	(2,464,181)	(263,573,252)
100	<b>Balance of Common Equity</b>	2,434,353,463	1,458,022,041	397,949,089	25,031,105	2,555,803,136	40,415,053	8,197,662,631
<b><u>Calculation of Capital Shares</u></b>								
101	Long Term Debt (Ln 65 Above)	3,197,240,790	1,117,000,000	420,000,000	20,000,000	2,709,450,000	25,000,000	8,939,190,790
102	Preferred Stock (Ln 94 Above)	17,752,000	8,080,200	-	-	16,627,400	-	42,459,600
103	Common Equity (Ln 100 Above)	2,434,353,463	1,458,022,041	397,949,089	25,031,105	2,555,803,136	40,415,053	8,197,662,631
104	Total Company Structure	5,649,346,253	2,583,102,241	817,949,089	45,031,105	5,281,880,536	65,415,053	17,179,313,021
105	LTD Capital Shares (Ln 101 / Ln 104)	56.59%	43.24%	51.35%	44.41%	51.30%	38.22%	52.03%
106	Preferred Stock Capital Shares (Ln 102 / Ln 104)	0.31%	0.31%	0.00%	0.00%	0.31%	0.00%	0.25%
107	Common Equity Capital Shares (Ln 103 / Ln 104)	43.09%	56.44%	48.65%	55.59%	48.39%	61.78%	47.72%
108	<b>Equity Capital Share Limit</b>	50.00%	50.00%	50.00%	100.00%	51.00%	100.00%	50.00%
109	LTD Capital Shares with Capital Equity Cap	56.59%	49.69%	51.35%	44.41%	51.30%	38.22%	53.00%
110	Preferred Stock Capital Shares	0.31%	0.31%	0.00%	0.00%	0.31%	0.00%	0.25%
111	Common Equity Capital Shares with Capital Equity Cap	43.09%	50.00%	48.65%	55.59%	48.39%	61.78%	46.75%
<b><u>Calculation of Capital Cost Rate</u></b>								
112	LTD Capital Cost Rate (Ln 73 / Ln 65)	5.64%	6.52%	6.39%	5.38%	5.13%	5.25%	5.61%
113	Preferred Stock Capital Cost Rate (Ln 95 / Ln 94)	4.50%	4.20%	0.00%	0.00%	4.40%	0.00%	4.41%
114	Common Equity Capital Cost Rate	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b><u>Calculation of Weighted Capital Cost Rate</u></b>								
115	LTD Weighted Capital Cost Rate (Ln 109 * Ln 112)	3.19%	3.24%	3.28%	2.39%	2.63%	2.01%	2.97%
116	Preferred Stock Capital Cost Rate (Ln 110 * Ln 113)	0.01%	0.01%	0.00%	0.00%	0.01%	0.00%	0.01%
117	Common Equity Capital Cost Rate (Ln 111 * Ln 114)	4.95%	5.75%	5.59%	6.39%	5.56%	7.10%	5.37%
118	<b>Total Company Structure</b>	<b>8.15%</b>	<b>9.00%</b>	<b>8.87%</b>	<b>8.77%</b>	<b>8.21%</b>	<b>9.11%</b>	<b>8.35%</b>

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## Appendix A-1.1

### AEP East Consolidated Utility Capital Structure Consolidation of Operating Companies' Average Capital Structure Worksheet Q Page 3

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b><u>Development of Average Long Term Debt</u></b>							
119	Average Bonds (Ln 1 + Ln 60) / 2	-	-	-	-	-	-
120	Less: Average Reacquired Bonds (Ln 2 + Ln 61) / 2	17,500,000	50,000,000	-	-	194,000,000	307,622,500
121	Average LT Advances from Assoc. Companies (Ln 3 + Ln 62) / 2	100,000,000	12,500,000	20,000,000	20,000,000	200,000,000	25,000,000
122	Average Senior Unsecured Notes (Ln 4 + Ln 63) / 2	3,266,919,996	1,454,500,000	465,000,000	-	2,973,015,000	9,602,179,996
123	Less: Average Fair Value Hedges (See Note on Ln 125 below)	-	-	-	-	-	-
124	<b>Average Balance of Long Term Debt</b>	<b>3,349,419,996</b>	<b>1,417,000,000</b>	<b>485,000,000</b>	<b>20,000,000</b>	<b>2,979,015,000</b>	<b>25,000,000</b>
125	NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (p. 257, Column H of the FF1)						

### **Development of 2009 Long Term Debt Interest Expense**

126	Interest on Long Term Debt (256-257.33.i)	201,508,637	100,346,371	30,323,070	1,075,000	129,578,994	1,312,500	547,990,827
127	Amort of Debt Discount & Expense (117.63.c)	3,232,592	3,157,632	457,098	-	3,354,846	-	12,043,656
128	Amort of Loss on Reacquired Debt (117.64.c)	991,540	1,596,824	33,649	-	626,793	-	3,992,302
129	Less: Amort of Premium on Debt (117.65.c)	-	-	-	-	-	-	-
130	Less: Amort of Gain on Reacquired Debt (117.66.c)	-	1,712	-	-	-	-	1,712

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131	Less: Hedge Interest on pp 256-257(i)	2,569,395	1,551,518	92,956	-	(7,185,191)	-	(2,971,322)
132	<b>2009 LTD Interest Expense</b>	203,163,374	103,547,597	30,720,861	1,075,000	140,745,824	1,312,500	566,996,395
<b><u>2009 Cost of Preferred Stock and Preferred Dividends</u></b>								
133	Average Balance of Preferred Stock (Ln 35 + Ln 94) / 2	17,751,900	8,078,500	-	-	16,626,900	-	42,457,300
134	2009 Preferred Dividends (Ln 36)	798,831	339,382	-	-	732,063	-	1,870,276
<b><u>Development of Average Common Equity</u></b>								
135	Average Proprietary Capital (Ln 37 + Ln 96) / 2	2,591,835,865	1,562,608,858	414,896,185	23,183,288	2,844,946,957	40,927,862	8,783,036,528
136	Less: Average Preferred Stock (Ln 133 Above)	17,751,900	8,078,500	-	-	16,626,900	-	42,457,300
137	Less: Average Account 216.1 (Ln 39 + Ln 98) / 2	2,528,053	(1,046,000)	-	-	-	-	7,615,449
138	Less: Average Account 219.1 (Ln 40 + Ln 99) / 2	(55,239,871)	(20,967,173)	(270,679)	2,780	(126,158,347)	(2,106,841)	(253,162,325)
139	<b>Average Balance of Common Equity</b>	2,626,795,783	1,576,543,530	415,166,864	23,180,508	2,954,478,404	43,034,703	8,986,126,104
<b><u>Calculation of Capital Shares</u></b>								
140	Average Balance of Long Term Debt (Ln 124 Above)	3,349,419,996	1,417,000,000	485,000,000	20,000,000	2,979,015,000	25,000,000	9,772,057,496
141	Average Balance of Preferred Stock (Ln 133 Above)	17,751,900	8,078,500	-	-	16,626,900	-	42,457,300
142	Average Balance of Common Equity (Ln 139 Above)	2,626,795,783	1,576,543,530	415,166,864	23,180,508	2,954,478,404	43,034,703	8,986,126,104
143	Average of Total Company Structure	5,993,967,678	3,001,622,030	900,166,864	43,180,508	5,950,120,304	68,034,703	18,800,640,899
144	Average Balance of LTD Capital Shares (Ln 140 / Ln 143)	55.88%	47.21%	53.88%	46.32%	50.07%	36.75%	51.98%
145	Average Balance of Preferred Stock Capital Shares (Ln 141 / Ln 143)	0.30%	0.27%	0.00%	0.00%	0.28%	0.00%	0.23%
146	Average Balance of Common Equity Capital Shares (Ln 142 / Ln 143)	43.82%	52.52%	46.12%	53.68%	49.65%	63.25%	47.80%
147	<b>Equity Capital Share Limit LTD Capital Shares with Capital Equity Cap</b>	50.00%	50.00%	50.00%	100.00%	51.00%	100.00%	50.00%
148	Equity Cap	55.88%	49.73%	53.88%	46.32%	50.07%	36.75%	52.38%
149	Preferred Stock Capital Shares	0.30%	0.27%	0.00%	0.00%	0.28%	0.00%	0.23%

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150	Common Equity Capital Shares with Capital Equity Cap	43.82%	50.00%	46.12%	53.68%	49.65%	63.25%	47.39%
<b><u>Calculation of Capital Cost Rate</u></b>								
151	LTD Capital Cost Rate (Ln 132 / Ln 124)	6.07%	7.31%	6.33%	5.38%	4.72%	5.25%	5.80%
152	Preferred Stock Capital Cost Rate (Ln 134 / Ln 133)	4.50%	4.20%	0.00%	0.00%	4.40%	0.00%	4.41%
153	Common Equity Capital Cost Rate	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b><u>Calculation of Weighted Capital Cost Rate</u></b>								
154	LTD Weighted Capital Cost Rate (Ln 148 * Ln 151)	3.39%	3.63%	3.41%	2.49%	2.37%	1.93%	3.04%
155	Preferred Stock Capital Cost Rate (Ln 149 * Ln 152)	0.01%	0.01%	0.00%	0.00%	0.01%	0.00%	0.01%
156	Common Equity Capital Cost Rate (Ln 150 * Ln 153)	5.04%	5.75%	5.30%	6.17%	5.71%	7.27%	5.45%
157	<b>ACTUAL WEIGHTED AVG COST OF CAPITAL</b>	<b>8.44%</b>	<b>9.39%</b>	<b>8.71%</b>	<b>8.66%</b>	<b>8.08%</b>	<b>9.20%</b>	<b>8.49%</b>

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## Appendix A.1.2

	<b>AEP Appalachian Transmission Co</b>	<b>AEP Indiana Michigan Transmission Co</b>	<b>AEP Kentucky Transmission Co</b>	<b>AEP Ohio Transmission Co</b>	
350	Land Rights		1.27%	1.44%	1.36%
352	Structures & Improvements	1.52%	1.32%	2.08%	1.64%
353	Station Equipment	1.68%	1.69%	2.15%	1.84%
354	Towers & Fixtures	1.54%	1.60%	2.61%	1.92%
355	Poles & Fixtures	2.64%	2.43%	3.95%	3.01%
356	OH Conductors & Devices	1.19%	1.53%	2.91%	1.88%
357	Underground Conduit	1.45%	1.56%	2.99%	2.00%
358	Underground Conductor	7.23%	1.55%	2.62%	3.80%
359	Roads & Trails		1.49%	-	1.49%

\*For the states of Kentucky, West Virginia, Virginia, Indiana and Michigan, the formula rate will use rates based on the last approved depreciation study for the applicable jurisdiction (KPCo, APCo, or I&M). For example, rates for the 2004 I&M depreciation study will be used for Indiana and Michigan.

Ohio's rates are a composite rate calculated as the average of the APCo, I&M and KPCo rates. AEP's rates may only be changed in a Section 205/206 proceeding based on new studies. This filing may be a single issue proceeding.

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## Appendix A.1.3 Illustration of Construction Draw Down Loan

### Appendix A.1.3 - Financing Costs for Long Term Debt using the Internal Rate of Return Methodology – AEP Transco HYPOTHETICAL EXAMPLE

AEP Transco anticipates its financing will be a 7 year loan, where by AEP Transco pays Origination Fees of \$7.9 million and a Commitments Fee of 0.375% on the undrawn principle. Consistent with GAAP, AEP Transco will amortize the Origination Fees and Commitments Fees using the standard Internal Rate of Return formula below. Each year, AEP Transco will true up the amounts withdrawn, the interest paid in the year, Origination Fees, Commitments Fees, and total loan amount on this attachment.

<b>Total Loan Amount</b>	<b>\$ 600,000,000</b>
--------------------------	-----------------------

<b>Internal Rate of Return<sup>1</sup></b>	<b>6.65%</b>
<b>Based on following Financial Formula<sup>2</sup>:</b>	
<b>NPV = 0 =</b>	
<b>Origination Fees</b>	
Underwriting Discount	-
Arrangement Fee	2,000,000
Upfront Fee	4,400,000
Rating Agency Fee	200,000
Legal Fees	1,250,000
Total Issuance Expense	<b>7,850,000</b>
<b>Annual Rating Agency Fee</b>	200,000
<b>Annual Bank Agency Fee</b>	75,000
<b>Revolving Credit Commitment Fee</b>	0.375%

	2008	2009	2010	2011	2012	2013	2014
LIBOR Rate	4.0610%	4.0610%	4.0610%	4.0610%	4.0610%	4.0610%	4.0610%
Spread	1.875%	1.875%	1.875%	1.875%	1.875%	1.875%	1.875%
<b>Interest Rate</b>	5.94%	5.94%	5.94%	5.94%	5.94%	5.94%	5.94%

(A) Year	(B)	(C) Capital Expenditures ( \$000's)	(D) Principle Drawn In Quarter (\$000's)	(E) Principle Drawn To Date (\$000's)	(F) Interest Expense (\$000's)	(G) Origination Fees (\$000's)	(H) Commitment & Utilization Fee (\$000's)	(I) Net Cash Flows (\$000's)
								(D-F-G-H)
Prior to 11/2008		16,529						
30/11/2008	Q4	8,923		-	-			-
15/02/2009	Q1	14,636	20,044	20,044		125		19,919
15/05/2009	Q2	17,119	8,560	28,604	297			8,262



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15/08/2009	Q3	46,132	23,066	51,670	424			22,642
15/11/2009	Q4	62,740	31,370	83,040	767			30,603
15/02/2010	Q1	132,393	66,197	149,236	1,232	7,725	553	56,686
15/05/2010	Q2	132,393	66,197	215,433	2,215		491	63,490
15/08/2010	Q3	132,393	66,197	281,629	3,197		429	62,570
15/11/2010	Q4	132,393	66,197	347,826	4,179		367	61,650
15/02/2011	Q1	70,588	35,294	383,120	5,162		305	29,827
15/05/2011	Q2	70,588	35,294	418,414	5,685		272	29,336
15/08/2011	Q3	70,588	35,294	453,708	6,209		239	28,846
15/11/2011	Q4	70,588	35,294	489,002	6,733		206	28,355
15/02/2012	Q1	51,885	25,943	514,944	7,257		173	18,513
15/05/2012	Q2	51,885	25,943	540,887	7,642		148	18,152
15/08/2012	Q3	51,885	25,943	566,829	8,027		124	17,792
15/11/2012	Q4	51,885	25,943	592,772	8,412		100	17,431
15/02/2013	Q1	11,122	7,228	600,000	8,797		76	(1,644)
15/05/2013	Q2			600,000	8,904		69	(8,973)
15/08/2013	Q3			600,000	8,904		69	(8,973)
15/11/2013	Q4			600,000	8,904		69	(8,973)
15/02/2014	Q1			600,000	8,904		69	(8,973)
15/05/2014	Q2			600,000	8,904		69	(8,973)
15/08/2014	Q3			600,000	8,904		69	(8,973)
15/11/2014	Q4			600,000	8,904		69	(8,973)
15/02/2015	Q1			600,000	8,904		-	(608,903)

<sup>1</sup> The IRR is the Debt Cost shown on Page 5, Line 118 of Rate Formula Template

<sup>2</sup> The IRR is a discount rate that makes the net present value of a series of cash flows equal to zero. The IRR equation can only be solved through iterations performed by a computer program (i.e.NPV function with goal seek in a spreadsheet program).

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## Appendix A.1.3

### Hypothetical Example of Final True-Up of Interest Rates and Interest Calculations for the Construction Loan

To be Prepared on 8/15/2013 (hypothetical date)

SUMMARY							
YEAR	Estimated Effective cost of debt used in forecast/true up	Final Effective cost of debt for the construction loan:	Hypothetical Revenue Requirement			Hypothetical Monthly Interest Rate applicable over the ATRR period	Total Amount of Construction Loan Related True-Up included in rates effective Jan 2014 (Refund)/Owed
			Based on Estimated Effective cost of debt	Based on Actual Effective cost of debt	Over (Under) Recovery		
2008	7.18%	7.00%	\$ 2,500,000.00	\$ 2,400,000.00	\$ 100,000.00	0.550%	\$ (148,288.33)
2009	6.8%	7.00%	\$5,000,000.00	\$5,150,000.00	\$ (150,000.00)	0.560%	\$ 209,670.43
2010	7.2%	7.00%	\$8,300,000.00	\$8,200,000.00	\$ 100,000.00	0.540%	\$ (131,109.09)
2011	7.3%	7.00%	\$12,300,000.00	\$12,000,000.00	\$ 300,000.00	0.580%	\$ (368,656.73)
2012*	7.1%	6.83%	\$18,000,000.00	\$17,900,000.00	\$ 100,000.00	0.570%	\$ (114,946.28)
2013**	6.50%	6.50%	\$25,000,000.00	\$25,000,000.00	\$ -		
2014**	6.50%	6.50%					\$ (553,329.99)

\* Assumes that the construction loan is retired on Sept 1, 2012  
 \*\* Assumes permanent debt structure is put in place on Sept 1, 2012 with effective rate of 6.5%  
 Note: True-Up period is 2008 - 2012, with the true-up amount included in 2014 forecasted ATRR. Final effective cost of debt for 2012 is computed as follows:  $((7\% * 243 \text{ days}) + (6.5\% * 122 \text{ days})) / 365 \text{ days}$

Calculation of Applicable Interest Expense for each ATRR period							
Interest Rate on Amount of Refunds or Surcharges from 35.19a	Over (Under) Recovery Plus Interest	Hypothetical Monthly Interest Rate	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed	

Calculation of Interest for 2008 True-Up Period					
An over or under collection will be recovered prorata over 2008, held for 2009, 2010, 2011, 2012, 2013 and returned prorata over 2014					
				Monthly	
January	Year 2008	-	0.5500%	12.00	-
February	Year 2008	-	0.5500%	11.00	-
March	Year 2008	10,000	0.5500%	10.00	(550)
April	Year 2008	10,000	0.5500%	9.00	(495)
May	Year 2008	10,000	0.5500%	8.00	(440)
June	Year 2008	10,000	0.5500%	7.00	(385)
July	Year 2008	10,000	0.5500%	6.00	(330)
August	Year 2008	10,000	0.5500%	5.00	(275)
September	Year 2008	10,000	0.5500%	4.00	(220)
October	Year 2008	10,000	0.5500%	3.00	(165)
November	Year 2008	10,000	0.5500%	2.00	(110)
December	Year 2008	10,000	0.5500%	1.00	(55)
					(3,025)

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				Annual		
January through December	Year 2009		0.5600%	12.00	(6,923)	
		(103,025)				(109,948)
January through December	Year 2010		0.5400%	12.00	(7,125)	
		(109,948)				(117,073)
January through December	Year 2011		0.5800%	12.00	(8,148)	
		(117,073)				(125,221)
January through December	Year 2012		0.5700%	12.00	(8,565)	
		(125,221)				(133,786)
January through December	Year 2013		0.5700%	12.00	(9,151)	
		(133,786)				(142,937)
<b><u>Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months</u></b>				<b>Monthly</b>		
January	Year 2014	142,937	0.5700%		(12,357)	
				(815)		(131,395)
February	Year 2014	131,395	0.5700%		(12,357)	(119,786)
				(749)		
March	Year 2014	119,786	0.5700%		(12,357)	(108,112)
				(683)		
April	Year 2014	108,112	0.5700%		(12,357)	(96,371)
				(616)		
May	Year 2014	96,371	0.5700%		(12,357)	(84,563)
				(549)		
June	Year 2014	84,563	0.5700%		(12,357)	(72,687)
				(482)		
July	Year 2014	72,687	0.5700%		(12,357)	(60,744)
				(414)		
August	Year 2014	60,744	0.5700%		(12,357)	(48,733)
				(346)		
September	Year 2014	48,733	0.5700%		(12,357)	(36,653)
				(278)		
October	Year 2014	36,653	0.5700%		(12,357)	(24,505)
				(209)		
November	Year 2014	24,505	0.5700%		(12,357)	(12,287)
				(140)		
December	Year 2014	12,287	0.5700%		(12,357)	0
				(70)		
					(5,351)	
Total Amount of True-Up Adjustment for 2008 ATRR				\$	(148,288)	
Less Over (Under) Recovery				\$	100,000	
Total Interest				\$	(48,288)	

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### Appendix A.1.3

#### Hypothetical Example of Final True-Up of Interest Rates and Interest Calculations for the Construction Loan

<u>Calculation of Interest for 2009 True-Up Period</u>						
An over or under collection will be recovered prorata over 2009, held for 2010, 2011, 2012, 2013 and returned prorata over 2014					Monthly	
January	Year 2009	(12,500)	0.5600%	12.00	840	13,340
February	Year 2009	(12,500)	0.5600%	11.00	770	13,270
March	Year 2009	(12,500)	0.5600%	10.00	700	13,200
April	Year 2009	(12,500)	0.5600%	9.00	630	13,130
May	Year 2009	(12,500)	0.5600%	8.00	560	13,060
June	Year 2009	(12,500)	0.5600%	7.00	490	12,990
July	Year 2009	(12,500)	0.5600%	6.00	420	12,920
August	Year 2009	(12,500)	0.5600%	5.00	350	12,850
September	Year 2009	(12,500)	0.5600%	4.00	280	12,780
October	Year 2009	(12,500)	0.5600%	3.00	210	12,710
November	Year 2009	(12,500)	0.5600%	2.00	140	12,640
December	Year 2009	(12,500)	0.5600%	1.00	70	12,570
					5,460	<b>155,460</b>
					<b>Annual</b>	
January through December	Year 2010	155,460	0.5400%	12.00	10,074	<b>165,534</b>
January through December	Year 2011	165,534	0.5800%	12.00	11,521	<b>177,055</b>
January through December	Year 2012	177,055	0.5700%	12.00	12,111	<b>189,166</b>
January through December	Year 2013	189,166	0.5700%	12.00	12,939	<b>202,104</b>

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<u>Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months</u>				Monthly		
January	Year 2014	(202,104)	0.5700%	1,152	17,473	185,784
February	Year 2014	(185,784)	0.5700%	1,059	17,473	169,370
March	Year 2014	(169,370)	0.5700%	965	17,473	152,863
April	Year 2014	(152,863)	0.5700%	871	17,473	136,262
May	Year 2014	(136,262)	0.5700%	777	17,473	119,566
June	Year 2014	(119,566)	0.5700%	682	17,473	102,775
July	Year 2014	(102,775)	0.5700%	586	17,473	85,888
August	Year 2014	(85,888)	0.5700%	490	17,473	68,905
September	Year 2014	(68,905)	0.5700%	393	17,473	51,826
October	Year 2014	(51,826)	0.5700%	295	17,473	34,649
November	Year 2014	(34,649)	0.5700%	197	17,473	17,374
December	Year 2014	(17,374)	0.5700%	99	17,473	(0)
				7,566		
Total Amount of True-Up Adjustment for 2009 ATRR					\$	209,670
Less Over (Under) Recovery					\$	(150,000)
Total Interest					\$	59,670

<u>Calculation of Interest for 2010 True-Up Period</u>					Monthly	
An over or under collection will be recovered prorata over 2010, held for 2011, 2012, 2013 and returned prorata over 2014						
January	Year 2010	8,333	0.5400%	12.00	(540)	(8,873)
February	Year 2010	8,333	0.5400%	11.00	(495)	(8,828)
March	Year 2010	8,333	0.5400%	10.00	(450)	(8,783)
April	Year	8,333	0.5400%	9.00	(405)	(8,738)

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May	2010						
	Year	8,333	0.5400%	8.00	(360)		(8,693)
June	2010						
	Year	8,333	0.5400%	7.00	(315)		(8,648)
July	2010						
	Year	8,333	0.5400%	6.00	(270)		(8,603)
August	2010						
	Year	8,333	0.5400%	5.00	(225)		(8,558)
September	2010						
	Year	8,333	0.5400%	4.00	(180)		(8,513)
October	2010						
	Year	8,333	0.5400%	3.00	(135)		(8,468)
November	2010						
	Year	8,333	0.5400%	2.00	(90)		(8,423)
December	2010						
	Year	8,333	0.5400%	1.00	(45)		(8,378)
					(3,510)		(103,510)
						<b>Annual</b>	
January through	Year	(103,510)	0.5800%	12.00	(7,204)		(110,714)
December	2011						
January through	Year	(110,714)	0.5700%	12.00	(7,573)		(118,287)
December	2012						
January through	Year	(118,287)	0.5700%	12.00	(8,091)		(126,378)
December	2013						
						<b>Monthly</b>	
<b>Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months</b>							
January	Year 2014	<b>126,378</b>	0.5700%		(720)	(10,926)	(116,173)
February	Year 2014	116,173	0.5700%		(662)	(10,926)	(105,909)
March	Year 2014	105,909	0.5700%		(604)	(10,926)	(95,587)
April	Year 2014	95,587	0.5700%		(545)	(10,926)	(85,206)
May	Year 2014	85,206	0.5700%		(486)	(10,926)	(74,766)
June	Year 2014	74,766	0.5700%		(426)	(10,926)	(64,266)
July	Year 2014	64,266	0.5700%		(366)	(10,926)	(53,707)
August	Year 2014	53,707	0.5700%		(306)	(10,926)	(43,087)
September	Year 2014	43,087	0.5700%		(246)	(10,926)	(32,407)
October	Year 2014	32,407	0.5700%		(185)	(10,926)	(21,666)
November	Year 2014	21,666	0.5700%		(123)	(10,926)	(10,864)
December	Year 2014	10,864	0.5700%		(62)	(10,926)	0
					(4,731)		
Total Amount of True-Up Adjustment for 2010 ATRR						\$	(131,109)
Less Over (Under) Recovery						\$	100,000
Total Interest						\$	(31,109)

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## Appendix A.1.3

### Hypothetical Example of Final True-Up of Interest Rates and Interest Calculations for the Construction Loan

#### Calculation of Interest for 2011 True-Up Period

An over or under collection will be recovered prorata over 2011, held for 2012, 2013 and returned prorata over 2014

					Monthly	
January	Year 2011	25,000	0.5800%	12.00	(1,740)	(26,740)
February	Year 2011	25,000	0.5800%	11.00	(1,595)	(26,595)
March	Year 2011	25,000	0.5800%	10.00	(1,450)	(26,450)
April	Year 2011	25,000	0.5800%	9.00	(1,305)	(26,305)
May	Year 2011	25,000	0.5800%	8.00	(1,160)	(26,160)
June	Year 2011	25,000	0.5800%	7.00	(1,015)	(26,015)
July	Year 2011	25,000	0.5800%	6.00	(870)	(25,870)
August	Year 2011	25,000	0.5800%	5.00	(725)	(25,725)
September	Year 2011	25,000	0.5800%	4.00	(580)	(25,580)
October	Year 2011	25,000	0.5800%	3.00	(435)	(25,435)
November	Year 2011	25,000	0.5800%	2.00	(290)	(25,290)
December	Year 2011	25,000	0.5800%	1.00	(145)	(25,145)
					(11,310)	<b>(311,310)</b>
					<b>Annual</b>	
January through December	Year 2012	(311,310)	0.5700%	12.00	(21,294)	<b>(332,604)</b>
January through December	Year 2013	(332,604)	0.5700%	12.00	(22,750)	<b>(355,354)</b>
					<b>Monthly</b>	
January	Year 2014	<b>355,354</b>	0.5700%		(30,721)	(326,658)
February	Year 2014	326,658	0.5700%		(30,721)	(297,798)
March	Year 2014	297,798	0.5700%		(30,721)	(268,774)

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April	Year 2014	268,774	0.5700%	(1,697)	(30,721)	(239,585)
May	Year 2014	239,585	0.5700%	(1,532)	(30,721)	(210,229)
June	Year 2014	210,229	0.5700%	(1,366)	(30,721)	(180,706)
July	Year 2014	180,706	0.5700%	(1,198)	(30,721)	(151,015)
August	Year 2014	151,015	0.5700%	(1,030)	(30,721)	(121,154)
September	Year 2014	121,154	0.5700%	(861)	(30,721)	(91,123)
October	Year 2014	91,123	0.5700%	(691)	(30,721)	(60,921)
November	Year 2014	60,921	0.5700%	(519)	(30,721)	(30,547)
December	Year 2014	30,547	0.5700%	(347)	(30,721)	0
				(174)	(30,721)	(13,303)
Total Amount of True-Up Adjustment for 2011 ATRR			\$ (368,657)			
Less Over (Under) Recovery			\$ 300,000			
Total Interest			\$ (68,657)			

**Calculation of Interest for 2012 True-Up Period**

An over or under collection will be recovered prorata over 2012, held for 2013 and returned prorata over 2014

				Monthly		
January	Year 2012	8,333	0.5700%	12.00	(570)	(8,903)
February	Year 2012	8,333	0.5700%	11.00	(523)	(8,856)
March	Year 2012	8,333	0.5700%	10.00	(475)	(8,808)
April	Year 2012	8,333	0.5700%	9.00	(428)	(8,761)
May	Year 2012	8,333	0.5700%	8.00	(380)	(8,713)
June	Year 2012	8,333	0.5700%	7.00	(333)	(8,666)
July	Year 2012	8,333	0.5700%	6.00	(285)	(8,618)
August	Year 2012	8,333	0.5700%	5.00	(238)	(8,571)



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September	Year 2012	8,333	0.5700%	4.00	(190)	(8,523)	
October	Year 2012	8,333	0.5700%	3.00	(143)	(8,476)	
November	Year 2012	8,333	0.5700%	2.00	(95)	(8,428)	
December	Year 2012	8,333	0.5700%	1.00	(48)	(8,381)	
					(3,705)	(103,705)	
January through December	Year 2013	(103,705)	0.5700%	12.00	Annual (7,093)	(110,798)	
<b>Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months</b>				<b>Monthly</b>			
January	Year 2014	<b>110,798</b>	0.5700%	(632)	(9,579)	(101,851)	
February	Year 2014	101,851	0.5700%	(581)	(9,579)	(92,853)	
March	Year 2014	92,853	0.5700%	(529)	(9,579)	(83,803)	
April	Year 2014	83,803	0.5700%	(478)	(9,579)	(74,702)	
May	Year 2014	74,702	0.5700%	(426)	(9,579)	(65,549)	
June	Year 2014	65,549	0.5700%	(374)	(9,579)	(56,344)	
July	Year 2014	56,344	0.5700%	(321)	(9,579)	(47,086)	
August	Year 2014	47,086	0.5700%	(268)	(9,579)	(37,776)	
September	Year 2014	37,776	0.5700%	(215)	(9,579)	(28,412)	
October	Year 2014	28,412	0.5700%	(162)	(9,579)	(18,995)	
November	Year 2014	18,995	0.5700%	(108)	(9,579)	(9,525)	
December	Year 2014	9,525	0.5700%	(54)	(9,579)	0	
					(4,148)		
Total Amount of True-Up Adjustment for 2012 ATRR					\$	(114,946)	
Less Over (Under) Recovery					\$	100,000	
Total Interest					\$	(14,946)	

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part I

**ATTACHMENT H-20B  
 BLANK FORMULA RATE  
 TEMPLATE**

AEPTCo subsidiaries in PJM  
 Transmission Cost of Service Formula Rate  
 Utilizing Actual/Projected FERC Form 1 Data  
 AEP \_\_\_\_\_ TRANSMISSION  
 COMPANY

For Twelve Months Ended  

Line No.			Total	Allocator		Transmission Amount
1	REVENUE REQUIREMENT (w/o incentives)	(ln 113)				\$0
2	REVENUE CREDITS	(Worksheet E, ln 8) (Note A)	-	DA	1.00000	\$ -
3	Facility Credits under PJM OATT Section 30.9	(Worksheet E, ln 9) (Note X)	-	DA	1.00000	\$ -
4	REVENUE REQUIREMENT For All Company Facilities	(ln 1 less ln 2 plus ln 3)				<u>\$ -</u>
<b>MEMO: The Carrying Charge Calculations on lines 7 to 12 below are used in calculating project revenue requirements billed through PJM Schedule 12, Transmission Enhancement Charges. The total non-incentive revenue requirements for these projects shown on line 5 is included in the total on line 4.</b>						
5	Revenue Requirement for PJM Schedule 12 Facilities (w/o incentives) (Worksheet J/K)		-	DA	1.00000	\$ -
6	NET PLANT CARRYING CHARGE w/o intra-AEP charges or credits or ROE incentives (Note B)					
7	Annual Rate	$((ln\ 1 - ln\ 80) / ((ln\ 33) \times 100))$				0.00%
8	Monthly Rate	$(ln\ 7 / 12)$				0.00%
9	NET PLANT CARRYING CHARGE ON LINE 7, w/o depreciation or ROE incentives (Note B)					
10	Annual Rate	$((ln\ 1 - ln\ 80 - ln\ 83) / ((ln\ 33) \times 100))$				0.00%
11	NET PLANT CARRYING CHARGE ON LINE 10, w/o Return, income taxes or ROE incentives (Note B)					
12	Annual Rate	$((ln\ 1 - ln\ 80 - ln\ 83 - ln\ 108 - ln\ 109) / ((ln\ 33) \times 100))$				0.00%
13	ADDITIONAL REVENUE REQUIREMENT for projects w/ incentive ROE's (Note B) (Worksheet J/K)					<span style="background-color: #d4edda; padding: 2px;">-</span>
14	<b>REVENUE REQUIREMENT FOR SCHEDULE 1A CHARGES</b>					
15	Total Load Dispatch & Scheduling (Account 561)	Line 63 Below				-
16	Less: Load Dispatch - Scheduling, System Control and Dispatch Services (321.88.b)					<span style="background-color: #d4edda; padding: 2px;">-</span>
17	Less: Load Dispatch - Reliability, Planning & Standards Development Services (321.92.b)					<span style="background-color: #d4edda; padding: 2px;">-</span>
18	Total 561 Internally Developed Costs	(Line 15 - Line 16 - Line 17)				<u>-</u>

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part 1

AEPTCo subsidiaries in PJM Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data AEP _____ TRANSMISSION COMPANY					
(1)	(2)	(3)	(4)	(5)	
<u>RATE BASE CALCULATION</u>	<u>Data Sources</u> (See "General Notes")	<u>TO Total</u> <u>NOTE C</u>	<u>Allocator</u>	<u>Total</u> <u>Transmission</u>	
Line No.					
19	GROSS PLANT IN SERVICE				
20	Transmission	(Worksheet A In 14. (d) & Ln 117)	-	DA	-
21	Less: Transmission ARO (Enter Negative)	(Worksheet A In 14. (e) )	-	TP	0.00000
22	General Plant	(Worksheet A In 14.(b))	-	W/S	1.00000
23	Less: General Plant ARO (Enter Negative)	(Worksheet A In 14.(i))	-	W/S	1.00000
24	Intangible Plant	(Worksheet A In 14.(j))	-	W/S	1.00000
25	TOTAL GROSS PLANT	(Sum of Lines: 19 to 23)	-	GP=	0.00000
				GTD=	-
26	ACCUMULATED DEPRECIATION AND AMORTIZATION				
27	Transmission	(Worksheet A In 28 (d) & In 43 (b))	-	TPI=	0.00000
28	Less: Transmission ARO (Enter Negative)	(Worksheet A In 28.(e))	-	TPI=	0.00000
29	General Plant	(Worksheet A In 28.(b))	-	W/S	1.00000
30	Less: General Plant ARO (Enter Negative)	(Worksheet A In 28.(i))	-	W/S	1.00000
31	Intangible Plant	(Worksheet A In 28.(j))	-	W/S	1.00000
32	TOTAL ACCUMULATED DEPRECIATION	(Sum of Lines: 26 to 30)	-		-
33	NET PLANT IN SERVICE				
34	Transmission	(In 19 + In 20 - In 26 - In 27)	-		-
35	General Plant	(In 21 + In 22 - In 28 - In 29)	-		-
36	Intangible Plant	(In 23 - In 30)	-		-
37	TOTAL NET PLANT IN SERVICE	(Sum of Lines: 33 to 35)	-	NP=	0.00000
38	DEFERRED TAX ADJUSTMENTS TO RATE BASE	(Note D)			
39	Account No. 281.1 (enter negative)	(Worksheet B, In 2 & In 5.E)	-	NA	-
40	Account No. 282.1 (enter negative)	(Worksheet B, In 7 & In 10.E)	-	DA	-
41	Account No. 283.1 (enter negative)	(Worksheet B, In 12 & In 15.E)	-	DA	-
42	Account No. 190.1	(Worksheet B, In 17 & In 20.E)	-	DA	-
43	Account No. 255 (enter negative)	(Worksheet B, In 24 & In 25.E)	-	DA	-
44	TOTAL ADJUSTMENTS	(sum Ins 38 to 42)	-		-
45	PLANT HELD FOR FUTURE USE	(Worksheet A In 44. (e)) In 45. (e)	-	DA	-
46	REGULATORY ASSETS	(Worksheet A In 51. (e))	-	DA	-
47	UNFUNDED RESERVES (ENTER NEGATIVE) (NOTE Y)	(Worksheet A In 54. (e))	-	W/S	1.00000
48	WORKING CAPITAL	(Note E)			
49	Cash Working Capital	(1/8 * In 66)	-		-
50	Transmission Materials & Supplies	(Worksheet C, In 2.(F))	-	TP	0.00000
51	A&G Materials & Supplies	(Worksheet C, In 3.(F))	-	W/S	1.00000
52	Stores Expense	(Worksheet C, In 4.(F))	-	GP	0.00000
53	Prepayments (Account 165) - Labor Allocated	(Worksheet C, In 8.(G))	-	W/S	1.00000
54	Prepayments (Account 165) - Gross Plant	(Worksheet C, In 8.(F))	-	GP	0.00000
55	Prepayments (Account 165) - Transmission Only	(Worksheet C, In 8.(E))	-	DA	1.00000
56	Prepayments (Account 165) - Unallocable	(Worksheet C, In 8.(D))	-	NA	0.00000
57	TOTAL WORKING CAPITAL	(sum Ins 48 to 55)	-		-
58	IPP CONTRIBUTIONS FOR CONSTRUCTION	(Note F) (Worksheet D, In 8.B)	-	DA	1.00000
	RATE BASE (sum Ins 36, 43, 45, 46, 56, 57)		-		-

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part 1

		AEPTCo subsidiaries in PJM Transmission Cost of Service Formula Rate Utilizing Actual/Projected FERC Form 1 Data				
		AEP _____ TRANSMISSION COMPANY				
Line No.	(1) EXPENSE, TAXES, RETURN & REVENUE REQUIREMENTS CALCULATION	(2) Data Sources (See "General Notes")	(3) TO Total	(4) Allocator	(5) Total Transmission	
	OPERATION & MAINTENANCE EXPENSE					
59	Customer Related Expense	322 &				
60	Regional Marketing Expenses	323.164,171,178.b				
61	Transmission	322.131.b				
62	TOTAL O&M EXPENSES	321.112.b				
63	Less: Total Account 561	(sum lns 59 to 61)				
64	Less: Account 565	(Note G) (Worksheet F, ln 14.C)				
65	Less: Regulatory Deferrals & Amortizations	(Note H) 321.96.b				
66	Total O&M Allocable to Transmission	(Note I) (Worksheet F, ln 4.C)				
		(lns 61 - 63 - 64 - 65)		TP	0.00000	-
67	Administrative and General	323.197.b (Notes J & M)				
68	Less: Acct. 924, Property Insurance	323.185.b				
69	Acct. 928, Reg. Com. Exp.	323.189.b				
70	Acct. 930.1, Gen. Advert. Exp.	323.191.b				
71	Acct. 930.2, Misc. Gen. Exp.	323.192.b				
72	Balance of A & G	(ln 67 - sum ln 68 to ln 71)		W/S	1.00000	-
73	Plus: Acct. 924, Property Insurance	(ln 68)		GP(	0.00000	-
74	Acct. 928 - Transmission Specific	Worksheet F ln 21.(E) (Note L)		h)	0.00000	-
75	Acct 930.1 - Only safety related ads -Direct	Worksheet F ln 38.(E) (Note L)		TP	0.00000	-
76	Acct 930.2 - Misc Gen. Exp. - Trans	Worksheet F ln 43.(E) (Note L)		DA	1.00000	-
77	PBOP Adjustment	Worksheet O ln 16 (B), (Note K & M)		W/S	1.00000	-
78	A & G Subtotal	(sum lns 72 to 77)				-
79	O & M EXPENSE SUBTOTAL	(ln 66+ ln 78)				-
80	Plus: Transmission Lease Payments To Affiliates in Acct 565 (Company Records) (Note H)	(ln 79 + ln 80)		DA	1.00000	-
81	TOTAL O & M EXPENSE					-
82	DEPRECIATION AND AMORTIZATION EXPENSE					
83	Transmission	336.7.f		TP1	0.00000	-
84	General	336.10.f		W/S	0.00000	-
85	Intangible	336.1.f		W/S	1.00000	-
86	TOTAL DEPRECIATION AND AMORTIZATION	(Ln 83+84+85)				-
87	TAXES OTHER THAN INCOME	(Note N)				
88	Labor Related					
89	Payroll	Worksheet H ln 23.(D)		W/S	0.00000	-
90	Plant Related					
91	Property	Worksheet H-p2 ln 3.(C) & ln 3.(G)		DA	1.00000	0
92	Gross Receipts/Sales & Use	Worksheet H ln 23.(F)		NA	0.00000	-
93	Other	Worksheet H ln 23.(E)		GP	0.00000	-
94	TOTAL OTHER TAXES	(sum lns 89 to 93)				-
95	INCOME TAXES	(Note O)				
96	$T=1 - \{[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)\}$		-%			
97	$EIT=(T(1-T) * (1-(WCLTD/WACC)) -$		-%			
98	where WCLTD=(ln 136) and WACC = (ln 139)					
99	and FIT, SIT & p are as given in Note O.					
100	$GRCF=1 / (1 - T) =$ (from ln 96)					
101	Amortized Investment Tax Credit (enter negative)	(FFI p.114, ln 19.c)				
102	Excess Deferred Income Tax	(Note T)		NP(	0.00000	-
103	Tax Effect of Permanent and Flow-Through Differences	(Note T)		h)	0.00000	-
104	Income Tax Calculation	(ln 97 * ln 109)				-
105	ITC adjustment	(ln 100 * ln 101)		NP(	0.00000	-
106	Excess Deferred Income Tax	(ln 100 * ln 102)		h)		-
107	Tax Effect of Permanent and Flow-Through Differences	(ln 100 * ln 103)				-
108	TOTAL INCOME TAXES	(sum lns 104 to 107)				-
109	RETURN ON RATE BASE (Rate Base*WACC)	(ln 58 * ln 139)				-
110	INTEREST ON IPP CONTRIBUTION FOR CONST. (Note F) (Worksheet D, ln 2.(B))			DA	1.00000	-
111	(Gains) / Losses on Sales of Plant Held for Future Use (Worksheet N, ln 4, Cols. (F) & (H))					-
112	Tax Impact on Net Loss / (Gain) on Sales of Plant Held for Future Use (ln 111 * ln97)					-
113	TOTAL REVENUE REQUIREMENT					-
	(sum lns81, 86, 94, 108, 109, 110, 111, 112)					-

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AEPTCo subsidiaries in PJM  
 Transmission Cost of Service Formula Rate  
 Utilizing Actual/Projected FERC Form 1 Data  
 AEP TRANSMISSION COMPANY  
 SUPPORTING CALCULATIONS

In										
No.	TRANSMISSION PLANT INCLUDED IN PJM TARIFF									
114	Total transmission plant	(In 19)							-	
115	Less transmission plant excluded from PJM Tariff (Worksheet A, In 42.(d)) (Note P)								-	
116	Less transmission plant included in OATT Ancillary Services (Worksheet A, In 42, Col. (b)) (Note Q)								-	
117	Transmission plant included in PJM Tariff	(In 114 - In 115 - In 116)							-	
118	Percent of transmission plant in PJM Tariff	(In 117 / In 114)						TP=	0.00000	
119	WAGES & SALARY ALLOCATOR (W/S)	(Note R)	Direct Payroll	Payroll Billed from AEP Service Corp.	Total					
120	<i>Line Deliberately Left Blank</i>									
121	Transmission	354.21.b	0	0	-	TP	0.00000		-	
122	Regional Market Expenses	354.22.b	0	0	-	NA	0.00000		-	
123	<i>Line Deliberately Left Blank</i>								-	
124	Other (Excludes A&G)	354.24,25,26.b	0	0	-	NA	0.00000		-	
125	Total	(sum lns 121 122 & 124)	0	0	0				-	
126	Transmission related amount							W/S=	0.00000	
	<b><u>Acutal (Uncapped) Capital Structure</u></b>									
127	WEIGHTED AVERAGE COST OF CAPITAL (WACC)								\$	
128	Long Term Interest	(Worksheet M, In. 36, col. (d))							-	
129	Preferred Dividends	(Worksheet M, In. 45, col. (d))							-	
130	<u>Development of Common Stock:</u>								-	
131	Proprietary Capital	(Worksheet M, In. 14, col. (b ))							-	
132	Less: Preferred Stock	(Worksheet M, In. 14 col. (c))							-	
133	Less: Account 216.1	(Worksheet M, In. 14, col. (d))							-	
134	Less: Account 219	(Worksheet M, In. 14, col. (e))							-	
135	Common Stock	(In 131 - In 132 - In 133 - In 134)							-	
			<b><u>Capital Structure Percentages</u></b>				Cost (Note S)		Weighted	
136	Long Term Debt (Note S) Worksheet M, In 28, col. (g), In 37, col. (d))		\$	Actual	Cap Limit		-		0.0000	
137	Preferred Stock (In 132)						-		0.0000	
138	Common Stock (In 135)						10.35%		0.0000	
139	Total (Sum lns 136 to 138)							WACC=	0.0000	
140	Capital Structure Equity Limit (Note Z)	55%								
	<b><u>AEP OPERATING COMPANIES' COMPOSITE (Note S)</u></b>									
141	WEIGHTED AVERAGE COST OF CAPITAL (WACC)								\$	
142	Long Term Interest	(Worksheet Q, In. 132)							-	
143	Preferred Dividends	(Worksheet Q, In. 134)							-	
144	<u>Development of Common Stock:</u>								-	
145	Proprietary Capital	(Worksheet Q, In. 135)							-	
146	Less: Preferred Stock	(Worksheet Q, In. 136)							-	
147	Less: Account 216.1	(Worksheet Q, In. 137)							-	
148	Less: Account 219	(Worksheet Q, In. 138)							-	
149	Common Stock	(In 144 - In 145 - In 146 - In 147)							-	
150			%	\$			Cost		Weighted	
151	Long Term Debt (Worksheet Q, In 140)						-		-	
152	Preferred Stock (Worksheet Q, In 141)						-		-	
153	Common Stock (Worksheet Q, In 142)						10.35%		-	
154	Total (Worksheet Q, In 143)							WACC=	-	

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AEPTCo subsidiaries in PJM  
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 AEP \_\_\_\_\_ TRANSMISSION COMPANY

<u>Letter</u>	<u>Notes</u>
	General Notes: a) References to data from Worksheets are indicated as: Worksheet X, Line#.Column.X
A	Revenue credits include: 1) Forfeited Discounts. 2) Miscellaneous Service Revenues. 3) Rental revenues earned on assets included in the rate base. 4) Revenues for associated business projects provided by employees whose labor and overhead costs are in the transmission cost of service. 5) Other electric revenues. 6) Revenues for grandfathered PTP contracts included in the load divisor. 7) If AEP Transmission companies have any directly assigned transmission facilities, the revenue credits in the formula rate shall include all revenues associated with those directly assigned transmission facilities, irrespective of whether the loads of the customer are included in the formula rate divisor; provided however, such addition to revenue credits shall not be reflected if the costs of such directly assigned transmission facilities are not included in the transmission plant balances on which the formula rate ATRR is based. See Worksheet E for details.
B	The annual and monthly net plant carrying charges on page 1 are used to compute the revenue requirement for RTEP sponsored upgrades or those projects receiving approved incentive-ROE's. Interest will be calculated based on Worksheet R and any over under recovery will be filed posted as part of the informational filing.
C	Transmission Plant Balances in this study are projected or actual average 13 month balances.
D	The total-company balances shown for Accounts 281, 282, 283, 190 only reflect ADIT that relates to utility operations. The balance of Account 255 is reduced by prior flow through and is completely excluded if the utility chose to utilize amortization of tax credits against FIT expense. An exception to this is pre-1971 ITC balances, which are required to be taken as an offset to rate base. Account 281 is not allocated. In compliance with FERC Rulemaking RM02-7-000, Asset Retirement Obligation deferrals have been removed from ratebase. Transmission ADIT allocations are shown on WS B. In compliance with FERC Rulemaking the calculation of ADIT in the annual projection will be performed in accordance with IRS regulation Section 1.167(I)-(b)(6)(ii). Detailed balances for the projected or actual period, distinguished between utility and non-utility balances, will be filed and posted as part of the informational filing. The company will not include the ADIT portion of deferred hedge gains and losses in rate base.
E	Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission, as shown on line 66. It excludes: 1) Load Scheduling & Dispatch Charges in account 561 that are collected in the OATT Ancillary Services Revenue, as shown on line 63. 2) Costs of Transmission of Electricity by Others, as described in Note H. 3) The impact of state regulatory deferrals and amortizations, as shown on line 65 4) All A&G Expenses, as shown on line 78.
F	Consistent with Paragraph 657 of Order 2003-A, the amount on line 78 is equal to the balance of IPP System Upgrade Credits owed to transmission customers that made contributions toward the construction of System upgrades, and includes accrued interest and unreturned balance of contributions. The annual interest expense is included on line 110.
G	Removes from the cost of service the Load Scheduling and Dispatch expenses booked to accounts 561.1 through 561.8. Expenses recorded in these accounts, with the exception of 561.4 & 561.8 (lines 16 & 17 above) are recovered in Schedule 1A, OATT ancillary services rates. See Worksheet F, lines 5 through 14, for descriptions and the Form 1 Source of these accounts' balances.
H	Removes cost of transmission service provided by others to determine the basis of cash working capital on line 66. To the extent such service is incurred to provide the PJM service at issue, e.g. lease payments to affiliates, such costs are added back on line 88 to determine the total O&M collected in the formula. The amounts on line 80 is also excluded in the calculation of the FCR percentage calculated on lines 6 through 12. The adbacks on line 80 of activity recorded in 565 represents inter-company sales or purchases of transmission capacity necessary to meet each AEP company's transmission load relative to their available transmission capacity. The company records referenced on line and 80 is the AEP _____ TRANSMISSION COMPANY general ledger.
I	Removes the impact of state regulatory deferrals or their amortization from Transmission O&M expense.
J	General Plant and Administrative & General expenses, other than in accounts 924, 928, and 930, will be functionalized based on the Wages & Salaries "W/S" allocator. The allocation basis for accounts 924, 928 and 930 are separately presented in the formula. A change in the allocation method for an account must be approved via a 205 filing with the FERC.
K	The Post-employment Benefit Other than Pension (PBOP) expense is fixed based on an approved ratio of PBOP expense to direct labor expense.
L	Expenses reported for these A&G accounts will be included in the cost of service only to the extent they are specifically assignable to transmission service. Worksheet F allocates these expense items. Acct 928 Includes Regulatory Commission expenses itemized in FERC Form-1 at page 351, column H. FERC Assessment Fees and Annual Charges shall not be allocated to transmission. Only safety-related and educational advertising costs in Account 930.1 are included in the TCOS. Account 930.2 includes the expenses incurred by the transmission function for Associated Business Development revenues given as a credit to the TCOS on Worksheet E.
M	See note K above. Recoverable PBOP expense is based on a rate of \$(0.058) cents per dollar of direct labor. This rate may be adjusted up or down every four years based on a comparison of the Allowable TransCo PBOP Expense and the Actual PBOP Expense for a four year Historic and four year Projected period. If the over or under collection is greater than plus or minus 20% of the recoverable amount, an adjustment will be proposed in a Section 205 rate filing.
N	Includes only FICA, unemployment, highway, property and other assessments. Gross receipts, sales & use and taxes related to income are excluded.
O	The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = the percentage of federal income tax deductible for state income taxes. See Worksheet G for the development of the Company's composite SIT. A utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f) (In 101) multiplied by (1/1-T) . If the applicable tax rates are zero enter 0.
	Inputs Required:
	FIT = 0.00% SIT = 0.00% (State Income Tax Rate or Composite SIT, Worksheet G) p = 0.00% (percent of federal income tax deductible for state purposes)
	The formula rate shall reflect the applicable state and federal statutory tax rates in effect during the period the calculated estimated unit charges are applicable. If the statutory tax rates change during such period, the effective tax rates used in the formula shall be weighted by the number of days the pre-change rate and post-change rate each is in effect.
P	Removes plant excluded from the OATT because it does not meet the PJM's definition of Transmission Facilities or is otherwise ineligible to be recovered under the OATT.
Q	Removes transmission plant (e.g. step-up transformers) included in the development of OATT ancillary service rates and not already removed for reasons indicated in Note P.
R	Includes functional wages & salaries billed by AEP Service Corporation for support of the operating company.
S	Long Term Debt cost rate = long-term interest (In 128) /average long term debt (In 136). Preferred Stock cost rate = preferred dividends (In 129) / preferred outstanding (In 137). Common Stock cost rate (ROE) = 10.35%, per the settlement in FERC Docket No. EL17-13. It includes an additional 50 basis points for PJM RTO membership. All Transmission Companies other than AEP Appalachian Transmission Company utilize their own capital structure and costs as shown on Worksheet M. The calculations on Worksheet M will use the projected or actual 13 month average of long-term debt, common and preferred equity and calendar year long term debt interest expenses, preferred dividends and approved ROE. The long term debt balances and long term debt cost rate shall not include any amounts related to hedging activity. As shown on Worksheet Q, the AEP Appalachian Transmission Company capital structure and weighted cost of capital (WACC) shall be based on the weighted composite of the AEP East

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I

Operating Companies beginning and ending average capital structure, including the beginning and ending average outstanding LTD and PS issuances with the common equity portion in Docket No. ER08-1329, and (2) the weighted composite LTD and PS cost using projected or actual calendar year LTD expense and PS dividends of the AEP East Operating Companies excluding all interest rate hedging costs and/or gains, until the the Company establishes its own actual capital structure.

T

Excess / (Deficit) Deferred Income Taxes will be amortized over the average remaining life of the assets to which it relates, unless the Commission requires a different amortization period. The Tax Effect of Permanent Differences captures the differences in the income taxes due under the Federal and State tax calculations that are not the result of a timing difference, including but not limited to depreciation related to capitalized AFUDC equity and meals and entertainment deductions. The Tax Effect of Flow-Through differences captures current tax expense related to timing differences on items for which tax deductions were used to reduce customer rates through the use of flow-through accounting in a prior period. Transmission balances for the projected or actual period, will be filed and posted as part of the informational filing.

U

Cash investment in prepaid pension and benefits recorded in FERC Account 165 is permitted to be included in the formula. A labor expense allocation factor will be used to allocate total company costs. All other prepayments recorded in

V

FERC Account 165 are directly assigned to the transmission function, allocated or excludable balances detailed on Worksheet C.

W

The formula rate shall allocate property tax expense based on the as filed net plant cost allocation method detailed on Worksheet H.  
AEP Transmission Companies will record depreciation expense using composites of the depreciation rates shown on Worksheet P which rates will not be changed absent a Section 205 or 206 filing at FERC to seek a change in depreciation rates. No other

X

changes to the formula rate may be included in that filing.  
Under Section 30.9 of the PJM OATT, a network customer that owns existing transmission facilities that are integrated with the Transmission Provider's Transmission System may be eligible to receive consideration either through a billing credit or some other mechanism. Calculation of any credit under this subsection, pursuant to approval by FERC for inclusion in this formula rate for collection on behalf of the network customer, shall be addressed in either the Network Customer's Service Agreement or any other agreement between the parties.

Y

The cost of service will make a rate base adjustment to remove unfunded reserves associated with contingent liabilities recorded to Accounts 228.1-228.4 from rate base.

Z

Per the settlement in EL17-13, equity is limited to 55% of the Company's capital structure. If the percentage of actual equity exceeds the cap, the excess is included as long term debt in the capital structure.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet A Rate Base  
 Company Name

		<b>Gross Plant In Service</b>				
Line No	Month (a)	Transmission (d)	Transmission ARO (e)	General (h)	General ARO (i)	Intangible (j)
				FF1, page 207	FF1, page 207	FF1, page 205
	(Note A)	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 58	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 57	Col.(g) & pg. 206 Col. (b), ln 99	Col.(g) & pg. 206 Col. (b), ln 98	Col.(g) & pg. 204 Col. (b), ln 5
1	December Prior to Rate Year					
2	January					
3	February					
4	March					
5	April					
6	May					
7	June					
8	July					
9	August					
10	September					
11	October					
12	November					
13	December of Rate Year					
14	Average of the 13 Monthly Balances	-	-	-	-	-

		<b>Accumulated Depreciation</b>				
Line No	Month (a)	Transmission (d)	Transmissio n ARO (e)	General (h)	General ARO (i)	Intangible (j)
			Company Records (Included in total in Column (d))	FF1, page 219, ln 28, Col. (b)	Company Records (Included in total in Column (h))	FF1, page 200, ln 21, Col. (b)
	(Note A)	FF1, page 219, ln 25, Col. (b)	(Included in total in Column (d))	FF1, page 219, ln 28, Col. (b)	Company Records (Included in total in Column (h))	FF1, page 200, ln 21, Col. (b)
15	December Prior to Rate Year					
16	January					
17	February					
18	March					
19	April					
20	May					
21	June					
22	July					
23	August					



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

24	September				
25	October				
26	November				
27	December of Rate Year				
28	Average of the 13 Monthly Balances	-	-	-	-

Line No	Month (a)	OATT Ancillary Services (GSU) Plant In Service (b)  Company Records (included in total in column (d) of gross plant above)	OATT Ancillary Services (GSU) Accumulated Depreciation (c)  Company Records (included in total in column (d) of accumulated depreciation above)	Excluded Plant - Plant In Service (d)  Company Records	Excluded Plant - Accumulated Depreciation (e)  Company Records
	(Note A)				
29	December Prior to Rate Year				-
30	January				-
31	February				-
32	March				-
33	April				-
34	May				-
35	June				-
36	July				-
37	August				-
38	September				-
39	October				-
40	November				-
41	December of Rate Year				-
42	Average of the 13 Monthly Balances	-	-	-	-

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

43 Transmission Accumulated  
 Depreciation net of GSU -

<u>Plant Held For Future Use</u>	<u>Source of Data</u>	<u>Balance @ December 31, 2017</u>	<u>Balance @ December 31, 2016</u>	<u>Average Balance for 2017</u>
(a)	(b)	(c)	(d)	(e)
44 <u>Plant Held For Future Use</u>	FF1, page 214, ln 47, Col. (d)	-	-	-
45 <u>Transmission Plant Held For Future Use (Included in total on line 43)</u>	Company Records - Note 1	-	-	-

**Regulatory Assets and Liabilities Approved for Recovery In Ratebase**

Note: Regulatory Assets & Liabilities can only be included in ratebase pursuant to a 205 filing with the FERC.

46				-
47				-
48				-
49				-
50				-
51	Total Regulatory Deferrals Included in Ratebase	-	-	-

**Unfunded Reserves Summary (Company Records)**

	<u>Description</u>	<u>Account</u>			
52					
53a					-
53b					-
54		Total	-	-	-

NOTE 1: On this worksheet, "Company Records" refers to AEP's property accounting ledger.  
 NOTE 2: The ratebase should not include the unamortized balance of hedging gains or losses.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM					
Cost of Service Formula Rate Using Actual/Projected FF1 Balances					
Worksheet B Supporting ADIT and ITC Balances					
AEP _____ TRANSMISSION COMPANY					
(A)	(B)	(C)	(D)	(E)	
<u>Line</u> <u>Number</u>	<u>Description</u>	<u>Source</u>	<u>Balance @ December</u> <u>31</u>	<u>Balance @ December</u> <u>31</u>	<u>Average Balance</u> <u>for</u>
1	<b><u>Account 281</u></b>				
2	Year End Utility Deferrals	FF1, p. 272 - 273, ln 8, Col. (k)			-
3	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 4 (Note 1)			-
4	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 3 (Note 1)			-
5	Transmission Related Deferrals	Ln 2 - ln 3 - ln 4	-	-	-
6	<b><u>Account 282</u></b>				
7	Year End Utility Deferrals	FF1, p. 274 - 275, ln 5, Col. (k)			-
8	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 7 (Note 1)			-
9	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 6 (Note 1)			-
10	Transmission Related Deferrals	Ln 7 - ln 8 - ln 9	-	-	-
11	<b><u>Account 283</u></b>				
12	Year End Utility Deferrals	FF1, p. 276 - 277, ln 9, Col. (k)			-
13	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 13 (Note 1)			-
14	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 12 (Note 1)			-
15	Transmission Related Deferrals	Ln 12 - ln 13 - ln 14	-	-	-
16	<b><u>Account 190</u></b>				
17	Year End Utility Deferrals	FF1, p. 234, ln 8, Col. (c)			-
18	Less: ARO Related Deferrals	WS B-2 - Actual Stmt. AG Ln. 4 (Note 1)			-
19	Less: Other Excluded Deferrals	WS B-2 - Actual Stmt. AG Ln. 3 (Note 1)			-
20	Transmission Related Deferrals	Ln 17 - ln 18 - ln 19	-	-	-
21	<b><u>Account 255</u></b>				
22	Year End ITC Balances	FF1, p. 266-267, ln 8, Col. (h)			-
23	Less: Balances Not Qualified for Ratebase	Company Records -- Note 1			-
24	ITC Balances Includeable in Ratebase	Ln 22 - ln 23	-	-	-
25	Transmission Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 20 (Note 1)			-
NOTE 1	On this worksheet, "Company Records" refers to AEP's tax forecast and accounting ledger. The PRTR will use projected ending balances and reflect proration required by IRS Letter Rule Section 1.167(l)-(h)(6)(ii). Line item detail of actual deferred tax items will be included on Worksheets B-1 and B-2.				
NOTE 2	ADIT balances should exclude balances related to hedging activity.				

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

Company Name SPECIFIED DEFERRED CREDITS - Actual Cycle Only PERIOD ENDED DECEMBER 31, 2017		(DEBIT) CREDIT														
COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	COLUMN F	COLUMN G	COLUMN H	COLUMN I	COLUMN J	COLUMN K	COLUMN L	COLUMN M	COLUMN N	COLUMN O		
	PER BOOKS	NON- APPLICABLE/NON- UTILITY		AVERAGE	FUNCTIONALIZATION AVERAGE			FUNCTIONALIZATION 12/31/2016			FUNCTIONALIZATION 12/31/2017					
ACCUMULATED DEFERRED FIT ITEMS	BALANCE AS OF 12-31- 2016	BALANCE AS OF 12-31- 2017	BALANCE AS OF 12-31- 2016	BALANCE AS OF 12-31- 2017	ELECTRIC UTILITY (B+C+D+E) /2	GENERATION	TRANSMISSION	DISTRIBUTION	GENERATION	TRANSMISSION	DISTRIBUTION	GENERATION	TRANSMISSION	DISTRIBUTION		
1.00 ACCOUNT 281:																
2.01																
2.02	0	0			0	0	0	0								
2.03																
2.04	0	0	0	0	0											
2.05	0	0	0	0	0											
2.06	0	0	0	0	0											
3 TOTAL ACCOUNT 281	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
4 ACCOUNT 281 - ARO-Related Deferrals	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
5 ACCOUNT 282:																
5.01	0	0			0	0	0	0								
5.02	0	0			0	0	0	0								
5.03	0	0			0	0	0	0								
5.04	0	0			0	0	0	0								
5.05	0	0			0	0	0	0								
5.06	0	0			0	0	0	0								

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

5.07	0	0	0	0	0	0
5.08	0	0	0	0	0	0
5.09	0	0	0	0	0	0
5.10	0	0	0	0	0	0
5.11	0	0	0	0	0	0
5.12	0	0	0	0	0	0
5.13	0	0	0	0	0	0
5.14	0	0	0	0	0	0
5.15	0	0	0	0	0	0
5.16	0	0	0	0	0	0
5.17	0	0	0	0	0	0
5.18	0	0	0	0	0	0
5.19	0	0	0	0	0	0
5.20	0	0	0	0	0	0
5.21	0	0	0	0	0	0
5.22	0	0	0	0	0	0
5.23	0	0	0	0	0	0
5.24	0	0	0	0	0	0
5.25	0	0	0	0	0	0
5.26	0	0	0	0	0	0
5.27	0	0	0	0	0	0
5.28	0	0	0	0	0	0
5.29	0	0	0	0	0	0
5.30	0	0	0	0	0	0
5.31	0	0	0	0	0	0
5.32	0	0	0	0	0	0
5.33	0	0	0	0	0	0
5.34	0	0	0	0	0	0
5.35	0	0	0	0	0	0
5.36	0	0	0	0	0	0
5.37	0	0	0	0	0	0
5.38	0	0	0	0	0	0
5.39	0	0	0	0	0	0

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

5.40		0	0	0									
5.41		0	0	0									
6	TOTAL ACCOUNT 282	0	0	0	0	0	0	0	0	0	0	0	0
7	ACCOUNT 282 - ARO-Related Deferrals	0	0	0	0	0	0	0	0	0	0	0	0
8	ACCOUNT 283:												
9.01		0	0	0	0	0	0	0	0				
9.02		0	0	0	0	0	0	0	0				
9.03		0	0	0	0	0	0	0	0				
9.04		0	0	0	0	0	0	0	0				
9.05		0	0	0	0	0	0	0	0				
9.06		0	0	0	0	0	0	0	0				
9.07		0	0	0	0	0	0	0	0				
9.08		0	0	0	0	0	0	0	0				
9.09		0	0	0	0	0	0	0	0				
9.10		0	0	0	0	0	0	0	0				
9.11		0	0	0	0	0	0	0	0				
9.12		0	0	0	0	0	0	0	0				
9.13		0	0	0	0	0	0	0	0				
9.14		0	0	0	0	0	0	0	0				
9.15		0	0	0	0	0	0	0	0				
9.16		0	0	0	0	0	0	0	0				
9.17		0	0	0	0	0	0	0	0				
9.18		0	0	0	0	0	0	0	0				
9.19		0	0	0	0	0	0	0	0				
9.20		0	0	0	0	0	0	0	0				
9.21		0	0	0	0	0	0	0	0				
9.22		0	0	0	0	0	0	0	0				
9.23		0	0	0	0	0	0	0	0				
9.24		0	0	0	0	0	0	0	0				

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

9.25	0	0	0	0	0	0		
9.26	0	0	0	0	0	0		
9.27	0	0	0	0	0	0		
9.28	0	0	0	0	0	0		
9.29	0	0	0	0	0	0		
9.30	0	0	0	0	0	0		
9.31	0	0	0	0	0	0		
9.32	0	0	0	0	0	0		
9.33	0	0	0	0	0	0		
9.34	0	0	0	0	0	0		
9.35	0	0	0	0	0	0		
9.36	0	0	0	0	0	0		
9.37	0	0	0	0	0	0		
9.38	0	0	0	0	0	0		
9.39	0	0	0	0	0	0		
9.40	0	0	0	0	0	0		
9.41	0	0	0	0	0	0		
9.42	0	0	0	0	0	0		
9.43	0	0	0	0	0	0		
9.44	0	0	0	0	0	0		
9.45	0	0	0	0	0	0		
9.46	0	0	0	0	0	0		
9.47	0	0	0	0	0	0		
9.48	0	0	0	0	0	0		
9.49	0	0	0	0	0	0		
9.50	0	0	0	0	0	0		
9.51	0	0	0	0	0	0		
9.52	0	0	0	0	0	0		
9.53	0	0	0	0	0	0		
9.54	0	0	0	0	0	0		
9.55	0	0	0	0	0	0		
9.56	0	0	0	0	0	0		
9.57	0	0	0	0	0	0		

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9.58	0	0	0	0	0	0		
9.59	0	0	0	0	0	0		
9.60	0	0	0	0	0	0		
9.61	0	0	0	0	0	0		
9.62	0	0	0	0	0	0		
9.63	0	0	0	0	0	0		
9.64	0	0	0	0	0	0		
9.65	0	0	0	0	0	0		
9.66	0	0	0	0	0	0		
9.67	0	0	0	0	0	0		
9.68	0	0	0	0	0	0		
9.69	0	0	0	0	0	0		
9.70	0	0	0	0	0	0		
9.71	0	0	0	0	0	0		
9.72	0	0	0	0	0	0		
9.73	0	0	0	0	0	0		
9.74	0	0	0	0	0	0		
9.75	0	0	0	0	0	0		
9.76	0	0	0	0	0	0		
9.77	0	0	0	0	0	0		
9.78	0	0	0	0	0	0		
9.79	0	0	0	0	0	0		
9.80	0	0	0	0	0	0		
9.81	0	0	0	0	0	0		
9.82	0	0	0	0	0	0		
9.83	0	0	0	0	0	0		
9.84	0	0	0	0	0	0		
9.85	0	0	0	0	0	0		
9.86	0	0	0	0	0	0		
9.87	0	0	0	0	0	0		
9.88	0	0	0	0	0	0		
9.89	0	0	0	0	0	0		
9.90	0	0	0	0	0	0		



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9.91		0	0	0	0	0	0		
9.92		0	0	0	0	0	0		
9.93		0	0	0	0	0	0		
9.94				0	0	0			
9.95				0	0	0			
9.96				0	0	0			
9.97				0	0	0			
9.98				0	0	0			
9.99				0	0	0			
10		<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
11	DEFD STATE INCOME TAXES	0	0	0	0	0	0		
11.01				0	0	0			
12	TOTAL ACCOUNT 283	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
13	ACCOUNT 283 - ARO-Related Deferrals	0	0	0	0	0	0	0	0
14	JURISDICTIONAL AMOUNTS FUNCTIONALIZED								
15	TOTAL COMPANY AMOUNTS FUNCTIONALIZED								
16	REFUNCTIONALIZED BASED ON JURISDICTIONAL PLANT								
17	NOTE: POST 1970 ACCUMULATED DEFERRED INV TAX CRED. (JDITC) IN A/C 255								
18.01		0	0	0	0	0	0		
18.02		0	0	0	0	0	0		
19									
20	TOTAL ACCOUNT 255	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

Company Name  
 ACCUMULATED DEFERRED INCOME  
 TAX IN ACCOUNT 190 - Actual Cycle  
 Only  
 PERIOD ENDED DECEMBER 31, 2017

COLUMN A	COLUMN B	COLUMN C	COLUMN D	COLUMN E	COLUMN F	COLUMN G	COLUMN H	COLUMN I	COLUMN J	COLUMN K	COLUMN L	COLUMN M	COLUMN N	COLUMN O	DEBIT	
															(CREDIT)	
	PER BOOKS		NON-APPLICABLE/NON-UTILITY		AVERAGE ELECTRIC UTILITY	FUNCTIONALIZATION AVERAGE			FUNCTIONALIZATION 12/31/2016			FUNCTIONALIZATION 12/31/2017				
	BALANCE AS OF 12-31-2016	BALANCE AS OF 12-31-2017	BALANCE AS OF 12-31-2016	BALANCE AS OF 12-31-2017	(B+C+D+E)/2	GENERATION	TRANSMISSION	DISTRIBUTION	GENERATION	TRANSMISSION	DISTRIBUTION	GENERATION	TRANSMISSION	DISTRIBUTION		
1	ACCOUNT 190:															
2.01	0	0			0	0	0	0								
2.02	0	0			0	0	0	0								
2.03	0	0			0	0	0	0								
2.04	0	0			0	0	0	0								
2.05	0	0			0	0	0	0								
2.06	0	0			0	0	0	0								
2.07	0	0			0	0	0	0								
2.08	0	0			0	0	0	0								
2.09	0	0			0	0	0	0								
2.10	0	0			0	0	0	0								
2.11	0	0			0	0	0	0								
2.12	0	0			0	0	0	0								
2.13	0	0			0	0	0	0								
2.14	0	0			0	0	0	0								
2.15	0	0			0	0	0	0								
2.16	0	0			0	0	0	0								
2.17	0	0			0	0	0	0								
2.18	0	0			0	0	0	0								
2.19	0	0			0	0	0	0								
2.20	0	0			0	0	0	0								
	0	0			0	0	0	0								

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

2.21									
2.22	0	0	0	0	0	0	0		
2.23	0	0	0	0	0	0	0		
2.24	0	0	0	0	0	0	0		
2.25	0	0	0	0	0	0	0		
2.26	0	0	0	0	0	0	0		
2.27	0	0	0	0	0	0	0		
2.28	0	0	0	0	0	0	0		
2.29	0	0	0	0	0	0	0		
2.30	0	0	0	0	0	0	0		
2.31	0	0	0	0	0	0	0		
2.32	0	0	0	0	0	0	0		
2.33	0	0	0	0	0	0	0		
2.34	0	0	0	0	0	0	0		
2.35	0	0	0	0	0	0	0		
2.36	0	0	0	0	0	0	0		
2.37	0	0	0	0	0	0	0		
2.38	0	0	0	0	0	0	0		
2.39	0	0	0	0	0	0	0		
2.40	0	0	0	0	0	0	0		
2.41	0	0	0	0	0	0	0		
2.42	0	0	0	0	0	0	0		
2.43	0	0	0	0	0	0	0		
2.44	0	0	0	0	0	0	0		
2.45	0	0	0	0	0	0	0		
2.46	0	0	0	0	0	0	0		
2.47	0	0	0	0	0	0	0		
2.48	0	0	0	0	0	0	0		
2.49	0	0	0	0	0	0	0		
2.50	0	0	0	0	0	0	0		
2.51	0	0	0	0	0	0	0		
2.52	0	0	0	0	0	0	0		
2.53	0	0	0	0	0	0	0		
2.54	0	0	0	0	0	0	0		

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

2.55	0	0	0	0	0	0	0		
2.56	0	0	0	0	0	0	0		
2.57	0	0	0	0	0	0	0		
2.58	0	0	0	0	0	0	0		
2.59	0	0	0	0	0	0	0		
2.60	0	0	0	0	0	0	0		
2.61	0	0	0	0	0	0	0		
2.62	0	0	0	0	0	0	0		
2.63	0	0	0	0	0	0	0		
2.64	0	0	0	0	0	0	0		
2.65	0	0	0	0	0	0	0		
2.66	0	0	0	0	0	0	0		
2.67	0	0	0	0	0	0	0		
2.68	0	0	0	0	0	0	0		
2.69	0	0	0	0	0	0	0		
2.70	0	0	0	0	0	0	0		
2.71	0	0	0	0	0	0	0		
2.72	0	0	0	0	0	0	0		
2.73	0	0	0	0	0	0	0		
2.74	0	0	0	0	0	0	0		
2.75	0	0	0	0	0	0	0		
2.76	0	0	0	0	0	0	0		
2.77	0	0	0	0	0	0	0		
2.78	0	0	0	0	0	0	0		
2.79	0	0	0	0	0	0	0		
2.80			0	0	0				
2.81			0	0	0				
2.82			0	0	0				
2.83			0	0	0				
2.84			0	0	0				
2.85			0	0	0				
2.86			0	0	0				
2.87			0	0	0				
			0	0	0				

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

2.88											
2.89			0	0	0						
2.90			0	0	0	0	0	0			
2.91		0	0			0	0	0			
3	TOTAL ACCOUNT 190	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
4	ACCOUNT 190 - ARO-Related Deferrals	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

*COMPANY NAME HERE*  
 Worksheet B-3  
 Excess/ Deficient ADIT Worksheet  
 For Year Ended December 31, 20\_\_  
 Debit/(Credit)

A	B	C	D	E	F	G	H
<b>TOTAL COMPANY BALANCES</b>							
<i>Line No.</i>	<i>Account (NOTE A)</i>	<i>Description of Account</i>	<i>Protected Unprotected</i>	<i>Tax Rate Change Act</i>	<i>Excess Balance at Remeasurement (NOTE C)</i>	<i>Amortization Methodology (NOTE D)</i>	<i>Amortization Period</i>
	<b>Deferred Tax Account (NOTE B)</b>						
1a							
1b							
1c							
1d							
1e							
1f							
1g							
1h							
1i							
1j	<b>NOTE E</b>						
	<b>Regulatory Deferral Accounts</b>						
2a	182.3	Regulatory Asset					
2b	254	Regulatory Liability					
2c	<b>NOTE E</b>						
3	<b>Total For Accounting Entries (Sum of Lines 1a through 2_)</b>						



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

*NOTE A: In order to ensure ratebase neutrality, AEP utilizes the fourth digit of its seven digit FERC Tax subaccount numbers to identify balances associated with utility operations vs regulatory reporting requirements. A "1" in the fourth digit of a FERC tax account refers to the utility operations balances or activity. Accounts with the "1" designation will be included in the determination of ratebase to be recovered in the formula rate. A "4" in the fourth position of the account number indicates accounts used to track regulatory accounting requirements. The excess ADIT amounts recorded in accounts with the "4" designation will be contra to the "1" balance, which will ensure that in the formula rate the excess or deficiency amounts will be part of ratebase, but at the total FERC account level the tax liability or asset will be recorded at the current Federal FIT rate. The amounts recorded in the "4" accounts will be offset on a net basis in the regulatory asset or liability subaccount established for this purpose.*

*NOTE B: The amount of the FIT gross up to recorded on regulatory assets and liabilities will be reported on the first line of ADIT accounts provided for each specific change in tax rates.*

*NOTE C: The amounts of the remeasurement shown here are as of the effective date of the change in tax rates and will remain static on this workpaper.*

*NOTE D: {REFERENCE OR CITE TO APPROVAL OF AMORTIZATION PERIOD FOR UNPROTECTED EXCESS OR DEFICIENT ADIT}*

*NOTE E: In the event of future tax rate changes, additional lines will be inserted in both the Total Company and Transmission Functional sections above as required to reflect any new ADIT or regulatory deferral accounts that may be necessary to track that tax rate change.*

*NOTE F: The amount of excess amortization entries shown in lines 1a through 1h are shown as a debit or credit to the ADIT account from which it is being amortized. The total in line 3 is the offset recorded to the 410/411 account and will tie to the total company amount of excess or deficient ADIT amortization shown on line 102 of the cost of service.*



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet C Supporting Working Capital Rate Base Adjustments AEP TRANSMISSION COMPANY									
(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
<b>Materials &amp; Supplies</b>									
<u>Line Number</u>	<u>Source</u>	<u>Balance @ December 31,</u>	<u>Balance @ December 31,</u>	<u>Average Balance for</u>					
1									
2	Transmission Materials & Supplies	FF1, p. 227, ln 8, Col. (c) & (b)			-				
3	General Materials & Supplies	FF1, p. 227, ln 11, Col. (c) & (b)			-				
4	Stores Expense (Undistributed) – Account 163	FF1, p. 227, ln 16, Col. (c) & (b)	0	0	-				
<b>Prepayment Balance Summary (Note 1)</b>									
5		<u>Average of YE Balance</u>	<u>Excludable Balances</u>	<u>100% Transmission Related</u>	<u>Transmission Plant Related</u>	<u>Transmission Labor Related</u>	<u>Total Included in Ratebase (E)+(F)+(G)</u>		
6	Totals as of December 31,	0	0	0	0	0	0		
7	Totals as of December 31,								
8	<b>Average Balance</b>								
<b>Prepayments Account 165 - Balance @ 12/31/</b>									
9	<u>Acc. No.</u>	<u>Description</u>	<u>YE Balance</u>	<u>Excludable Balances</u>	<u>100% Transmission Related</u>	<u>Transmission Plant Related</u>	<u>Transmission Labor Related</u>	<u>Total Included in Ratebase (E)+(F)+(G)</u>	<u>Explanation</u>
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
	<b>Subtotal - Form 1, p 111.57.c</b>		0	0	0	0	0	0	
<b>Prepayments Account 165 - Balance @ 12/31/</b>									
20	<u>Acc. No.</u>	<u>Description</u>	<u>YE Balance</u>	<u>Excludable Balances</u>	<u>100% Transmission Related</u>	<u>Transmission Plant Related</u>	<u>Transmission Labor Related</u>	<u>Total Included in Ratebase (E)+(F)+(G)</u>	<u>Explanation</u>
21						0			
22						0			
23						0			
24									
25				0					
26				0					
27				0					
28				0					
29				0			0		
30				0					
31				0					
	<b>Subtotal - Form 1, p 111.57.d</b>			0					

Prepayment Balance will not include: (i) federal and state income tax payments made to offset additional tax liabilities resulting (or expected to result) from prior federal or state audits or from the filing of one or more amended income tax returns; (ii) outstanding income tax refunds due to [company] resulting (or expected to result) from prior federal or state audits or from the filing of one or more amended income tax returns; or (iii) prepayments of federal or state income taxes which are attributable to income earned during periods prior to January 1 of the year depicted in the Balance Sheet (as described in USofA Account 236).

Note 1:

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet D Supporting IPP Credits

AEP \_\_\_\_\_ TRANSMISSION COMPANY

<u>Line Number</u>	<u>(A)</u> <u>Description</u>	<u>(B)</u>
1	Net Funds from IPP Customers 12/31/____ (____ FORM 1, P269)	-
2	Interest Expense (Company Records – Note 1)	-
3	Revenue Credits to Generators (Company Records – Note 1)	-
4	<u>Other Adjustments</u>	
5	Accounting Adjustment (Company Records – Note 1)	-
6		-
7	Net Funds from IPP Customers 12/31/ (____ FORM 1, P269)	-
8	Average Balance for Year as Indicated in Column ((ln 1 + ln 7)/2) On this worksheet Company Records refers to AEP _____ TRANSMISSION Note 1 COMPANY 's general ledger.	-

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet E Supporting Revenue Credits  
 AEP \_\_\_\_\_ TRANSMISSION COMPANY

<u>Line</u>	<u>Description</u>	<u>(a)</u> <u>Total</u> <u>Company</u>	<u>(b)</u> <u>Non-</u> <u>Transmission</u>	<u>(c)</u> <u>Transmission</u>
1	Account 450, Forfeited Discounts (FF1 p.300.16.(b); Company Records - Note 1)		-	
2	Account 451, Miscellaneous Service Revenues (FF1 p.300.17.(b); Company Records - Note 1)		-	
3	Account 454, Rent from Electric Property (FF1 p.300.19.(b); Company Records - Note 1)		-	
4	Account 4560015, Associated Business Development - (Company Records - Notes 1, 2)		-	
5	Account 456 - Other Electric Revenues - (Company Records - Notes 1, 2)		-	
5a	Account 457.1, Regional Control Service Revenues (FF1 p.300.23.(b); Company Records - Note 1)			
5b	Account 457.2, Miscellaneous Revenues (FF1 p.300.24.(b); Company Records - Note 1)			
6	Subtotal - Other Operating Revenues (Company Total equals (FF1 p. 300.26.(b))		-	
7	Accounts 4470004 & 4470005, Revenues from Grandfathered Transmission Contracts - (Company Records - Note 1)	-		-
8	Total Other Operating Revenues To Reduce Revenue Requirement			
9	Facility Credits under PJM OATT Section 30.9			-

The total company data on this worksheet comes from the indicated FF1 source, or AEP \_\_\_\_\_ TRANSMISSION COMPANY 's general ledger.  
 Note 1 The functional amounts identified as transmission revenue also come from the general ledger.  
 Note 2 The total of line 4 and line 5 will equal total Account 456 as listed on FF1 p.300.21-22.(b)

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet F Supporting Allocation of Specific O&M or A&G Expenses AEP _____ TRANSMISSION COMPANY						
(A)	(B)	(C)	(D)	(E)	(F)	
Line Number	Item No.	Description	Expense	100% Non-Transmission	100% Transmission Specific	Explanation
1		Regulatory O&M Deferrals & Amortizations	-			
2			-			
3			-			
4		<b>Total</b>	0			
5		<b>Detail of Account 561 Per FERC Form 1</b>				
6	FF1 p 321.85.b	561.1 - Load Dispatch - Reliability				
7	FF1 p 321.86.b	561.2 - Load Dispatch - Monitor & Operate Trans System				
8	FF1 p 321.87.b	561.3 - Load Dispatch - Trans Service & Scheduling				
9	FF1 p 321.88.b	561.4 - Scheduling, System Control & Dispatch				
10	FF1 p 321.89.b	561.5 - Reliability, Planning and Standards Development				
11	FF1 p 321.90.b	561.6 - Transmission Service Studies				
12	FF1 p 321.91.b	561.7 - Generation Interconnection Studies				
13	FF1 p 321.92.b	561.8 - Reliability, Planning and Standards Development Services				
14		<b>Total of Account 561</b>				
15		<b>Account 928</b>			-	
16					-	
17					-	
18					-	
19					-	
20					-	
21		<b>Total (FERC Form 1 p.323.189.b)</b>	-	-	-	
22		<b>Account 930.1</b>				
23				-	-	
24				-	-	
25				-	-	
26				-	-	
27				-	-	
28				-	-	
29				-	-	
30				-	-	
31				-	-	
32				-	-	
33				-	-	
34				-	-	
35				-	-	
36				-	-	
37				-	-	
38		<b>Total (FERC Form 1 p.323.191.b)</b>	-	-	-	
39		<b>Account 930.2</b>				
40						
41						
42						
43		<b>Total (FERC Form 1 p.323.192.b)</b>	-	-	-	

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet G Supporting - Development of Composite State Income Tax Rate  
 AEP \_\_\_\_\_ TRANSMISSION COMPANY

1	_____ Tax Rate		
	Apportionment Factor – Note 1		
	Effective State Tax Rate		
2	_____ Tax Rate		
	Apportionment Factor – Note 1		
	Effective State Tax Rate		
3	_____ Tax Rate		
	Apportionment Factor – Note 1		
	Effective State Tax Rate		
4	_____ Tax Rate		
	Apportionment Factor – Note 1		
	Effective State Tax Rate		
5	_____ Tax Rate		
	Apportionment Factor – Note 1		
	Effective State Tax Rate		
	Total Effective State Income Tax Rate		

Note 1 Apportionment Factors are determined as part of the Company's annual tax return for that jurisdiction.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM Cost of Service Formula Rate Using Actual/Projected FF1 Balances Worksheet H Supporting Taxes Other than Income AEP _____ TRANSMISSION COMPANY						
Line No.	(A) Account	(B) Total Company	(C) Property	(D) Labor	(E) Other	(F) Non-Allocable
1	<b>Revenue Taxes</b>	NOTE 1				
2	List Individual Taxes Here					
3	<b>Real Estate and Personal Property Taxes</b>					
4	Real and Personal Property - Jurisdiction #1		-			
5	Real and Personal Property - Jurisdiction #2		-			
6	Real and Personal Property - Jurisdiction #3		-			
7	Real and Personal Property - Other Jurisdictions		-			
8	<b>Payroll Taxes</b>					
9	Federal Insurance Contribution (FICA )			-		
10	Federal Unemployment Tax			-		
11	State Unemployment Insurance			-		
12	<b>Line Deliberately Left Blank</b>					
13	State Severance Taxes					-
14	<b>Miscellaneous Taxes</b>					
15	List Individual Taxes Here					-
16						-
17						-
18						-
19						-
20						-
21						-
22						-
23	Total Taxes by Allocable Basis (Total Company Amount Ties to FFI p.114, Ln 14,(c)) NOTE 1: The detail of each total company number and its source in the FERC Form 1 is shown on WS H-1.					
<b>Functional Property Tax Allocation</b>						
		Lines 24-58 Column (B) Deliberately Left Blank	Transmission	Lines 24-58 Column (D) Deliberately Left Blank	General	Total
24	Functionalized Net Plant (TCOS, Lns 33 thru 36)					
25	<b>JURISDICTION</b>					
26	Percentage of Plant in _____ JURISDICTION					
27	Net Plant in _____ JURISDICTION (Ln 24 * Ln 25)					
28	Less: Net Value of Exempted Generation Plant					
29	Taxable Property Basis (Ln 26 - Ln 27)					
30	Relative Valuation Factor					
31	Weighted Net Plant (Ln 28 * Ln 29)					
32	General Plant Allocator (Ln 31 / (Total - General Plant))					
33	Functionalized General Plant (Ln 31 * General Plant)					
34	Weighted _____ JURISDICTION Plant (Ln 30 + 32)					
35	Functional Percentage (Ln 33/Total Ln 33)					
36	Net Plant in _____ JURISDICTION (Ln 24 - Ln 26)					
37	Less: Net Value of Exempted Generation Plant					
38	Taxable Property Basis (Ln 36 - Ln 37)					
39	Relative Valuation Factor					
40	Weighted Net Plant (Ln 37 * Ln 38)					
41	General Plant Allocator (Ln 39 / (Total - General Plant))					
42	Functionalized General Plant (Ln 41 * General Plant)					
43	Weighted _____ JURISDICTION Plant (Ln 39 + 41)					
	Functional Percentage (Ln 42/Total Ln 42)					

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet H page 2 Form 1 Source Reference of Company Amounts on WS H  
 AEP TRANSMISSION COMPANY

Line No.	(A) Annual Tax Expenses by Type (Note 1)	(B) Total Company	(C) FERC FORM 1 Tie-Back	(D) FERC FORM 1 Reference			
1	<b>Revenue Taxes</b>						
2	Gross Receipts Tax			P.263.1 ln 7 (i) P.263.2 ln 3 (i) P.263.2 ln 4 (i)			
	(A) "Real Estate and Personal Property Tax Detail Annual Tax Expenses by Type (Note 1)"	(B) Tax Year	(C) Total Company	(D) FERC FORM 1 Tie-Back	(E) FERC FORM 1 Reference	(F) Tax Year	(G) Transmission
					Factor (Note 2)	Function (Note 2)	
3	<b>Real Estate and Personal Property Taxes Total (Ln 4 + Ln 5 + Ln 6 + Ln 7)</b>						
4	Real and Personal Property -						
5	Real and Personal Property -						
6	Real and Personal Property -						
7	Real and Personal Property - Other Jurisdictions						
Line No.	(A) <b>Annual Tax Expense by Type (Note 1)</b>		(C) FERC FORM 1 Tie-Back	(D) FERC FORM 1 Reference			
8	<b>Pavroll Taxes</b>						
9	Federal Insurance Contribution (FICA )			P.263 ln 6 (i)			
10	Federal Unemployment Tax			P.263 ln 9 (i)			
11	State Unemployment Insurance			P.263.1 ln 23 (i) P.263.3 ln 16 (i)			
12	Line Left Deliberately Blank						
13	State Severance Taxes						
14	<b>Miscellaneous Taxes</b>						
15	State Business & Occupation Tax			P.263 ln 21 (i) P.263 ln 22 (i)			
16	State Public Service Commission Fees			P.263 ln 26 (i) P.263.3 ln 20 (i)			
17	State Franchise Taxes			P.263.1 ln 18 (i) P.263.4 ln 27 (i)			
18	State Lic/Registration Fee			P.263.1 ln 15 (i) P.263.4 ln 21 (i)			
19	Misc. State and Local Tax			P.263.1 ln 12 (i)			

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

20	Sales & Use		P.263 ln 30 (i) P.263.3 ln 21 (i)
21	Federal Excise Tax		P.263 ln 13 (i) P.263 ln 14 (i)
22	Michigan Single Business Tax		
23	Total Taxes by Allocable Basis		

(Total Company Amount Ties to FFI p.114, Ln 14.(c))

Note 1: The taxes assessed on each transmission company can differ from year to year and between transmission companies by both the type of taxes and the states in which they were assessed. Therefore, for each company, the types and jurisdictions of tax expense recorded on this page could differ from the same page in the same company's prior year template or from this page in other transmission companies' current year templates. For each update, this sheet will be revised to ensure that the total activity recorded hereon equals the total reported in account 408.1 on P. 114, Ln 14.(c) of the Ferc Form 1.

Note 2: The transmission functional amounts for any Real Estate and Property taxes listed on pages 263 of the FERC Form 1 will be allocated using the transmission functional allocator calculated for each state in Worksheet H of the applicable year that the taxes were assessed. Real and Personal Property - Other Jurisdictions will be allocated using the Gross Plant Allocator from the applicable year..



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B -  
AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
Cost of Service Formula Rate Using Actual/Projected FF1  
Balances  
Worksheet I RESERVED  
AEP \_\_\_\_\_ TRANSMISSION COMPANY

**RESERVED FOR FUTURE USE**

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet J Supporting Calculation of PROJECTED PJM RTEP Project Revenue Requirement Billed to Benefiting Zones  
 AEP \_\_\_\_\_ TRANSMISSION COMPANY

**I. Calculate Return and Income Taxes with basis point ROE increase for Projects Qualified for Regional Billing.**

**A. Determine 'R' with hypothetical basis point increase in ROE for Identified Projects**

ROE w/o incentives (TCOS, ln 138)			11.49%
Project ROE Incentive Adder			
ROE with additional basis point incentive			
Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the TCOS, lns 164 through 166)			
	<u>%</u>	<u>Cost</u>	<u>Weighted cost</u>
Long Term Debt	0.00%	0.00%	0.000%
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	0.00%	11.49%	<u>0.000%</u>
			R = 0.000%

SUMMARY OF PROJECTED ANNUAL RTEP REVENUE REQUIREMENTS			
	Rev Require	W Incentives	Incentive Amounts
PROJECTED YEAR	-	-	\$ -

**B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects.**

Rate Base (TCOS, ln 58)	-
R (from A. above)	0.000%
Return (Rate Base x R)	-

**C. Determine Income Taxes using Return with hypothetical basis point ROE increase for Identified Projects.**

Return (from B. above)	-
Effective Tax Rate (TCOS, ln 97)	0.00%
Income Tax Calculation (Return x CIT)	-
ITC Adjustment	-
Excess Deferred Income Tax	-
Tax Affect of Permanent Differences	-
Income Taxes	-

**II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical basis point ROE increase.**

**A. Determine Annual Revenue Requirement less return and Income Taxes.**

Annual Revenue Requirement (TCOS, ln 1)	-
Lease Payments (TCOS, ln 80)	-
Return (TCOS, ln 109)	-
Income Taxes (TCOS, ln 108)	-
Annual Revenue Requirement, Less Lease Payments, Return and Taxes	-

**B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.**

Annual Revenue Requirement, Less Lease payments, Return and Taxes	-
Return (from I.B. above)	-
Income Taxes (from I.C. above)	-
Annual Revenue Requirement, with Basis Point ROE increase	-
Depreciation & Amortization (TCOS, ln 83)	-
Annual Rev. Req. w/ Basis Point ROE increase, less Depreciation	-

**C. Determine FCR with hypothetical basis point ROE increase.**

Net Transmission Plant (TCOS, ln 33)	-
Annual Revenue Requirement, with Basis Point ROE increase	-
FCR with Basis Point increase in ROE	0.00%
Annual Rev. Req. w/ Basis Point ROE increase, less Dep.	-
FCR with Basis Point ROE increase, less Depreciation	0.00%
FCR less Depreciation (TCOS, ln 10)	<u>0.00%</u>
Incremental FCR with Basis Point ROE increase, less Depreciation	0.00%

**II. Calculation of Composite Depreciation Rate**

Average Transmission Plant Balance for ____ TCOS, ln 19	-
Annual Depreciation and Amortization Expense (TCOS, ln 83)	-
Composite Depreciation Rate	0.00%
Depreciable Life for Composite Depreciation Rate	-
Average Life in Whole Years	-

Note 1: Until AEP \_\_\_\_\_ TRANSMISSION COMPANY establishes Transmission plant in service the depreciation expense component of the carrying charge will be calculated as in the Operating Company formula approved in Docket No. ER08-1329. The calculation for AEP \_\_\_\_\_ TRANSMISSION COMPANY is shown on Worksheet P.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

TransCo Worksheet J - ATRR PROJECTED Calculation for PJM Projects Charged to Benefiting Zones  
 IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.  
 A. Base Plan Facilities

Facilities receiving incentives accepted by FERC in Docket No. [redacted] (e.g. ER10-925-000)

Current Projected Year ARR	-
Current Projected Year ARR w/ Incentive	-
Current Projected Year Incentive ARR	-

Project Description: [redacted]

Investment	Current Year
Service Year (yyyy)	ROE increase accepted by FERC (Basis Points)
Service Month (1-12)	FCR w/o incentives, less depreciation
Useful life	FCR w incentives approved for these facilities, less dep.
CIAC (Yes or No)	Annual Depreciation Expense

**CUMULATIVE HISTORY OF PROJECTED ANNUAL REVENUE REQUIREMENTS:**  
 CUMULATIVE HISTORY OF PROJECTED ANNUAL REVENUE REQUIREMENTS:  
 INPUT PROJECTED ARR (WITH & WITHOUT INCENTIVES) FROM EACH PRIOR YEAR

TEMPLATE BELOW TO MAINTAIN HISTORY OF PROJECTED ARRS OVER THE LIFE OF THE PROJECT.

Investment Year	Beginning Balance	Depreciation Expense	Ending Balance	RTEP Rev. Req't. w/o Incentives	RTEP Rev. Req't. with Incentives **	Incentive Rev. Requirement #	RTEP Projected Rev. Req't. From Prior Year Template w/o Incentives	RTEP Projected Rev. Req't. From Prior Year Template with Incentives **
0	-	-	-	-	-	\$ -		
1	-	-	-	-	-	\$ -		
2	-	-	-	-	-	\$ -		
3	-	-	-	-	-	\$ -		
4	-	-	-	-	-	\$ -		
5	-	-	-	-	-	\$ -		
6	-	-	-	-	-	\$ -		
7	-	-	-	-	-	\$ -		
8	-	-	-	-	-	\$ -		
9	-	-	-	-	-	\$ -		
10	-	-	-	-	-	\$ -		
11	-	-	-	-	-	\$ -		
12	-	-	-	-	-	\$ -		
13	-	-	-	-	-	\$ -		
14	-	-	-	-	-	\$ -		
15	-	-	-	-	-	\$ -		
16	-	-	-	-	-	\$ -		
17	-	-	-	-	-	\$ -		
18	-	-	-	-	-	\$ -		
19	-	-	-	-	-	\$ -		
20	-	-	-	-	-	\$ -		
21	-	-	-	-	-	\$ -		
22	-	-	-	-	-	\$ -		
23	-	-	-	-	-	\$ -		
24	-	-	-	-	-	\$ -		
25	-	-	-	-	-	\$ -		
26	-	-	-	-	-	\$ -		
27	-	-	-	-	-	\$ -		
28	-	-	-	-	-	\$ -		
29	-	-	-	-	-	\$ -		
30	-	-	-	-	-	\$ -		
31	-	-	-	-	-	\$ -		
32	-	-	-	-	-	\$ -		
33	-	-	-	-	-	\$ -		
34	-	-	-	-	-	\$ -		
35	-	-	-	-	-	\$ -		
36	-	-	-	-	-	\$ -		
37	-	-	-	-	-	\$ -		
38	-	-	-	-	-	\$ -		
39	-	-	-	-	-	\$ -		
40	-	-	-	-	-	\$ -		
41	-	-	-	-	-	\$ -		
42	-	-	-	-	-	\$ -		
43	-	-	-	-	-	\$ -		
44	-	-	-	-	-	\$ -		
45	-	-	-	-	-	\$ -		
46	-	-	-	-	-	\$ -		
47	-	-	-	-	-	\$ -		
48	-	-	-	-	-	\$ -		
49	-	-	-	-	-	\$ -		
50	-	-	-	-	-	\$ -		
51	-	-	-	-	-	\$ -		
52	-	-	-	-	-	\$ -		
53	-	-	-	-	-	\$ -		
54	-	-	-	-	-	\$ -		
55	-	-	-	-	-	\$ -		
56	-	-	-	-	-	\$ -		
57	-	-	-	-	-	\$ -		
58	-	-	-	-	-	\$ -		
59	-	-	-	-	-	\$ -		

Project Totals

\*\* This is the total amount that needs to be reported to PJM for billing to all regions.

## This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive return. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

In order to calculate the proper monthly RTEP billing amount, PJM requires a 12 month revenue requirement for each RTEP project. As a result, notwithstanding the fact that the project was in service for a partial year, the project revenue requirement in the year that the project goes into service has been annualized (shown at the full-year level) so that PJM will collect the correct monthly billings.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FFI Balances  
 Worksheet K Supporting Calculation of TRUE-UP PJM RTEP Project Revenue Requirement Billed to Benefiting Zones  
 AEP \_\_\_\_\_ TRANSMISSION COMPANY

Page 1 of 2

I.

Calculate Return and Income Taxes with 0 basis point ROE increase for Projects Qualified for Regional Billing.

A. Determine 'R' with hypothetical 0 basis point increase in ROE for Identified Projects

			11.49
ROE w/o incentives (TCOS, ln 138)			%
Project ROE Incentive Adder			0
ROE with additional 0 basis point incentive			
Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the TCOS, lns 164 through 166)			
	%	Cost	Weighted cost
Long Term Debt	0.00%	0.00%	0.000%
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	0.00%	0.00%	11.490%
		R =	0.000%

TRUE-UP YEAR	Rev Require	W Incentives	Incentive Amounts
As Projected in Prior Year WS J			\$ -
Actual after True-up	\$ -	\$ -	\$ -
True-up of ARR For ____	-	-	-

B. Determine Return using 'R' with hypothetical 0 basis point ROE increase for Identified Projects.

Rate Base (TCOS, ln 58)	-
R (from A. above)	0.00%
Return (Rate Base x R)	-

C. Determine Income Taxes using Return with hypothetical 0 basis point ROE increase for Identified Projects.

Return (from B. above)	-
Effective Tax Rate (TCOS, ln 97)	0.00%
Income Tax Calculation (Return x CIT)	-
ITC Adjustment	-
Excess Deferred Income Tax	-
Tax Affect of Permanent Differences	-
Income Taxes	-

II.

Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical 0 basis point ROE increase.

A. Determine Annual Revenue Requirement less return and Income Taxes.

Annual Revenue Requirement (TCOS, ln 1)	-
Lease Payments (TCOS, ln 80)	-
Return (TCOS, ln 109)	-
Income Taxes (TCOS, ln 108)	-
Annual Revenue Requirement, Less Lease payments, Return and Taxes	-

B. Determine Annual Revenue Requirement with hypothetical 0 basis point increase in ROE.

Annual Revenue Requirement, Less Lease payments, Return and Taxes	-
Return (from I.B. above)	-
Income Taxes (from I.C. above)	-
Annual Revenue Requirement, with 0 Basis Point ROE increase	-
Depreciation (TCOS, ln 83)	-
Annual Rev. Req. w/ 0 Basis Point ROE increase, less Depreciation	-
C. Determine FCR with hypothetical 0 basis point ROE increase.	
Net Transmission Plant (TCOS, ln 33)	-
Annual Revenue Requirement, with 0 Basis Point ROE increase	-
FCR with 0 Basis Point increase in ROE	0.00%
Annual Rev. Req. w/ 0 Basis Point ROE increase, less Dep.	-
FCR with 0 Basis Point ROE increase, less Depreciation	0.00%
FCR less Depreciation (TCOS, ln 10)	0.00%
Incremental FCR with 0 Basis Point ROE increase, less Depreciation	0.00%

III.

Calculation of Composite Depreciation Rate

Average Transmission Plant Balance for ____ TCOS, ln 19	-
Annual Depreciation and Amortization Expense (TCOS, ln 83)	-
Composite Depreciation Rate	0.00%
Depreciable Life for Composite Depreciation Rate	-
Average Life in Whole Years	-

Note 1: Until AEP \_\_\_\_\_ TRANSMISSION COMPANY establishes Transmission plant in service the depreciation expense component of the carrying charge will be calculated as in the Operating Company formula approved in Docket No. ER08-1329. The calculation for AEP \_\_\_\_\_ TRANSMISSION COMPANY is shown on Worksheet P.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

IV. Determine the Revenue Requirement, and Additional Revenue Requirement for facilities receiving incentives.  
 A. Base Plan Facilities

Facilities receiving incentives accepted by FERC in Docket No. [REDACTED] (e.g. ER10-925-000)

Project Description:

Details		Current Year	
Investment	-	ROE increase accepted by FERC (Basis Points)	-
Service Year (yyyy)	0	FCR w/o incentives, less depreciation	0.00%
Service Month (1-12)	-	FCR w/incentives approved for these facilities, less dep.	0.00%
Useful life	-	Annual Depreciation Expense	-
CIAC (Yes or No)	0		

Investment Year	Beginning Balance	Depreciation Expense	Ending Balance	Average Balance	RTEP Rev. Req't. w/o Incentives	RTEP Rev. Req't. with Incentives **	Incentive Requirement ##
0	-	-	-	-	-	-	-
1	-	-	-	-	-	-	-
2	-	-	-	-	-	-	-
3	-	-	-	-	-	-	-
4	-	-	-	-	-	-	-
5	-	-	-	-	-	-	-
6	-	-	-	-	-	-	-
7	-	-	-	-	-	-	-
8	-	-	-	-	-	-	-
9	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-
11	-	-	-	-	-	-	-
12	-	-	-	-	-	-	-
13	-	-	-	-	-	-	-
14	-	-	-	-	-	-	-
15	-	-	-	-	-	-	-
16	-	-	-	-	-	-	-
17	-	-	-	-	-	-	-
18	-	-	-	-	-	-	-
19	-	-	-	-	-	-	-
20	-	-	-	-	-	-	-
21	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-
24	-	-	-	-	-	-	-
25	-	-	-	-	-	-	-
26	-	-	-	-	-	-	-
27	-	-	-	-	-	-	-
28	-	-	-	-	-	-	-
29	-	-	-	-	-	-	-
30	-	-	-	-	-	-	-
31	-	-	-	-	-	-	-
32	-	-	-	-	-	-	-
33	-	-	-	-	-	-	-
34	-	-	-	-	-	-	-
35	-	-	-	-	-	-	-
36	-	-	-	-	-	-	-
37	-	-	-	-	-	-	-
38	-	-	-	-	-	-	-
39	-	-	-	-	-	-	-
40	-	-	-	-	-	-	-
41	-	-	-	-	-	-	-
42	-	-	-	-	-	-	-
43	-	-	-	-	-	-	-
44	-	-	-	-	-	-	-
45	-	-	-	-	-	-	-
46	-	-	-	-	-	-	-
47	-	-	-	-	-	-	-
48	-	-	-	-	-	-	-
49	-	-	-	-	-	-	-
50	-	-	-	-	-	-	-
51	-	-	-	-	-	-	-
52	-	-	-	-	-	-	-
53	-	-	-	-	-	-	-
54	-	-	-	-	-	-	-
55	-	-	-	-	-	-	-
56	-	-	-	-	-	-	-
57	-	-	-	-	-	-	-
58	-	-	-	-	-	-	-
59	-	-	-	-	-	-	-
Project Totals	-	-	-	-	-	-	-

	Rev Require	W Incentives	Incentive Amounts
Prior Yr	-	-	-
Projected	-	-	-
Prior Yr True-Up	-	-	-
True-Up	-	-	-
Adjustment	-	-	-

**TRUE UP OF PROJECT REVENUE REQUIREMENT FOR PRIOR YEAR:**  
 CUMULATIVE HISTORY OF TRUED-UP ANNUAL REVENUE REQUIREMENTS:  
 INPUT TRUE-UP ARR (WITH & WITHOUT INCENTIVES) FROM EACH PRIOR YEAR

TEMPLATE BELOW TO MAINTAIN HISTORY OF TRUED-UP ARRS OVER THE LIFE OF THE PROJECT.

RTEP Projected Rev. Req't. From Prior Year WS J w/o Incentives	RTEP Rev Req't True-up w/o Incentives	RTEP Projected Rev. Req't. From Prior Year WS J with Incentives **	RTEP Rev Req't True-up with Incentives **	True-up of Incentive with Incentives **
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
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-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
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-	-	-	-	-
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-	-	-	-	-
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-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-
-	-	-	-	-

\*\* This is the total amount that needs to be reported to PJM for billing to all regions.  
 ## This is the calculation of additional incentive revenue on projects deemed by the FERC to be eligible for an incentive return. This additional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated for PJM should be incremented by the amount of the incentive revenue calculated for that year on this project.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE  
REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
Worksheet L RESERVED  
AEP \_\_\_\_\_ TRANSMISSION COMPANY  
**RESERVED FOR FUTURE USE**

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of  
 Capital  
 AEP WEST VIRGINIA TRANSMISSION COMPANY

		Average Balance of Common Equity				
Line No	Month	Proprietary Capital	Less: Preferred Stock	Less Undistributed Sub Earnings		Average Balance of Common Equity
				(Acct 216.1)	Less AOCI (Acct 219.1)	
	(a)	(b)	(c)	(d)	(e)	(f)=(b)-(c)-(d)-(e)
	(Note A)	(FF1 112.16)	(FF1 250-251)	(FF1 112.12)	(FF1 112.15)	
1	December Prior to Rate Year	-	-	-	-	-
2	January	-	-	-	-	-
3	February	-	-	-	-	-
4	March	-	-	-	-	-
5	April	-	-	-	-	-
6	May	-	-	-	-	-
7	June	-	-	-	-	-
8	July	-	-	-	-	-
9	August	-	-	-	-	-
10	September	-	-	-	-	-
11	October	-	-	-	-	-
12	November	-	-	-	-	-
13	December of Rate Year	-	-	-	-	-
14	Average of the 13 Monthly Balances	-	-	-	-	-

		Average Balance of Long Term Debt					
Line No	Month	Bonds	Less: Reacquired Bonds	Acct 223 LT Advances		Less: Fair Value Hedges	Gross Proceeds Outstanding Long-Term Debt
				from Assoc. Companies	Acct 224 Senior Unsecured Notes		
	(a)	(b)	(c)	(d)	(e)	(f)	(g)=(b)-(f)

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

(Note A)	FF1, page 257, Col. (h) - Note 1				(c)+(d)+(e) -(f)
	(FF1 112.18)	(FF1 112.19)	(FF1 112.20)	(FF1 112.21)	
15 December Prior to Rate Year	-	-	-	-	-
16 January	-	-	-	-	-
17 February	-	-	-	-	-
18 March	-	-	-	-	-
19 April	-	-	-	-	-
20 May	-	-	-	-	-
21 June	-	-	-	-	-
22 July	-	-	-	-	-
23 August	-	-	-	-	-
24 September	-	-	-	-	-
25 October	-	-	-	-	-
26 November	-	-	-	-	-
27 December of Rate Year	-	-	-	-	-
28 Average of the 13 Monthly Balances	-	-	-	-	-

NOTE 1: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (Page 257 Column H of the FF1)

**Development of Cost of Long Term Debt Based on Average Outstanding Balance**

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29 <b>Annual Interest Expense for 2017</b>							
Interest on Long Term Debt - Accts							
30 221 - 224 (256-257.33.i)				-			
Less: Total Hedge Gain/Expense Accumulated from p 256-257, col. (i) of FERC Form 1 included in Ln 30 and shown in 43 below.				-			
31 Amort of Debt Discount & Expense - Acct 428 (117.63.c)				-			
32 Amort of Loss on Reacquired Debt - Acct 428.1 (117.64.c)				-			
33 Less: Amort of Premium on Debt - Acct 429 (117.65.c)				-			
34 Less: Amort of Gain on Reacquired Debt - Acct 429.1 (117.66.c)				-			
35				-			



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

**Total Interest Expense (Ln 30 - 31**  
 36 + 32 + 33 - 34 - 35) -

**Average Cost of Debt for 2017 (Ln**  
 37 36/ ln 28 (g)) #DIV/0!

**CALCULATION OF HEDGE GAINS/LOSSES TO BE EXCLUDED FROM TCOS**

38 AEP WEST VIRGINIA TRANSMISSION COMPANY may not include costs (or gains) related to interest hedging activities.

	HEDGE AMOUNTS BY ISSUANCE (FROM p. 256-257 (i) of the FERC Form 1)	(Amortizati on of (Gain)/Loss for 2017	Remaining Unamortize d Balance	Amortization Period	
				Beginning	Ending
39					
40					
41					
42					
<hr/>					
	<b>Net (Gain)/Loss Hedge</b>				
43	<b>Amortization To Be Removed</b>	-	-	-	-

**Development of Cost of Preferred Stock**

Balance of Preferred Stock (Line 14  
 44 (c)) -

Dividends on Preferred Stock (Acct  
 45 437, FF1 118.29))

Average Cost of Preferred Stock (Ln  
 46 45 / ln 44) #DIV/0!

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use  
 AEP \_\_\_\_\_ TRANSMISSION COMPANY

Note: Gain or loss on plant held for future are recorded in accounts 411.6 or 411.7 respectively. Sales will be functionalized based on the description of that asset. Sales of transmission assets will be direct assigned; sales of general assets will be functionalized on labor. Sales of plant held for future use related to generation or distribution will not be included in the formula.

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	
Line	Date	Property Description	Function (T) or (G)	Basis	Proceeds	(Gain) / Loss	Functional Allocator	Functional Proceeds (Gain) / Loss	FERC Account (Gain) / Loss
			T = Transmission G = General						
1						-	0.000%		
2						-	0.000%		
3						-	0.000%		
4				Net (Gain) or Loss for ____		-			

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Calculation of Post-employment Benefits Other than Pensions Expenses Allocable to Transmission Service  
 Worksheet O - PBOP Support  
 AEP \_\_\_\_\_ TRANSMISSION COMPANY

PBOP	(A)	(B)
1	<b>Calculation of PBOP Expenses</b>	
2	<b>AEP System PBOP Rate</b>	
3	Total AEP System PBOP expenses	
4	Base Year relating to retired personnel	
5	Amount allocated on Labor	
6	Total AEP System Direct Labor Expense	
7	AEP System PBOP expense per dollar of direct labor (PBOP Rate)	
8	Currently Approved PBOP Rate	(0.043)
9	Base PBOP TransCo labor expensed in current year	
10	Allowable TransCo PBOP Expense for current year (Ln 8 * Ln 9)	
11	Direct PBOP Expense per Actuarial Report	
12	Additional PBOP Ledger Entry (From Company Records)	
13	Medicare Credit	
14	PBOP Expenses From AEP Affiliates (From Company Records)	
15	Actual PBOP Expense (Sum Lines 11-14)	
16	PBOP Adjustment (Line 10 less Line 15)	

Note: PBOP Expense will be calculated in accordance with the settlement in Docket ER10-355.

As part of the annual update process, AEP will provide to transmission customers and include in its informational filing an independently prepared actuarial report that includes a ten (10) year forecast of PBOP expenses. During the annual update process conducted for rate year 2018 and every four years thereafter, Worksheet O will be used to determine whether the PBOP allowance rate (\$PBOP per \$Direct O&M Labor) should be adjusted going forward for the next four years. If the annual actuarial report issued during the year of any PBOP rate review projects PBOP costs during the next four years that, when allocated to the AEP Transmission Companies based on their projected direct labor expenses over that same projected four-year period, absent a change in the PBOP Rate, will likely cause the AEP East Transmission Companies to over or under collect their cumulative PBOP expenses by more than 20% of the projected next four year's total PBOP expense, taking into account the net over or under collection of such expenses during the previous four years, the PBOP rate shall be adjusted. In order to determine whether continued use of the then approved PBOP rate is likely to result in the AEP Companies' incurrence of a cumulative allowance of PBOP costs under the formula rate will result in a cumulative over or under-recovery of actual PBOP expenses exceeding 20% over the subsequent four year period, Worksheet O will be used to determine (a) the level of cumulative over or under collections of PBOP expense during the time since the PBOP allowance rate was last set, including carrying costs based on the weighted average cost of capital each year from the formula rate actual transmission cost-of-service (b) the cumulative net present value of projected PBOP costs during the next four years as estimated by the then current actuarial report, assuming a discount rate equal to the actual transmission cost of service average cost of capital for the immediately prior calendar year and (c) the cumulative net present value of continued collections over the next four years based on the projected AEP Transmission Companies direct labor expenses and the then effective PBOP allowance rate assuming a discount rate equal to the prior year weighted average cost of capital. If the absolute value of (a)+(b)-(c) exceeds 20% of (b), then the PBOP allowance rate used in the formula rate calculation shall be changed to the value that will cause the projected result of (a)+(b)-(c) to equal zero. If the projected over or under collection during the next four years, (a)+(b)-(c), is less than 20% of (b), then the PBOP Rate will continue in effect for the next four years at the then effective rate. If it is determined through this procedure AEP Companies will over-recover or under-recover actual PBOP expenses by more than 20% over the subsequent four-year period, AEP shall make a filing under FPA Section 205 to change the PBOP Rate stated in the formula rate shown on Worksheet O. No other changes to the formula rate may be included in that filing.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

**AEPTCo subsidiaries in PJM**  
**Worksheet - P**  
**DEPRECIATION RATES**  
**FOR TRANSMISSION PLANT PROPERTY ACCOUNTS**  
**EFFECTIVE AS OF 3/6/2019**

**AEP APPALACHIAN TRANSMISSION COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES Note 1</b>
<b>TRANSMISSION PLANT</b>		
Energy Storage Equipment	351.0	14.22%
Structures & Improvements	352.0	1.62%
Station Equipment	353.0	2.37%
Towers & Fixtures	354.0	1.59%
Poles & Fixtures	355.0	2.71%
Overhead Conductor	356.0	1.53%
Underground Conduit	357.0	3.71%
Underground Conductors	358.0	5.24%
<b>GENERAL PLANT</b>		
Structures and Improvements	390	1.91%
Office Furniture and Equip.	391	3.17%
Stores Equipment	393	1.80%
Tools, Shop and Garage Equipment	394	2.57%
Laboratory Equipment	395	4.01%
Power Operated Equipment	396	3.90%
Communications Equipment	397	4.98%
Micellaneous Equipment	398	2.70%

**Note:** Per the Settlement in Docket No. ER10-355, Appendix A.1.2, AEP APPALACHIAN TRANSMISSION COMPANY shall use the depreciation rates shown above by FERC Account until such time as the FERC approves new depreciation rates pursuant to a Section 205 or 206 filing to change rates.

	<u>Composite Depreciation Rate</u>	<u>OpCo Company</u>	<u>OpCo Company</u>	<u>TOTAL</u>
1	T-Plant (FF1 206.58.g)			
2	T-Plant (FF1 206.58.b)			
3	Average (Ln 1+ Ln 2)/2			
4	Depreciation (FF1 336.7.f)			
5	Composite Depreciation (Ln 3 / Ln 4)			

**Note:** AEP APPALACHIAN TRANSMISSION COMPANY shall initially use the composite depreciation rate for Virginia and West Virginia shown above to estimate depreciation expense for transmission projects in Worksheets J and K until a composite depreciation rate based on transmission plant in service and depreciation expenses recorded by AEP APPALACHIAN TRANSMISSION COMPANY for its own transmission facilities can be calculated in AEP APPALACHIAN TRANSMISSION COMPANY's the first Annual Update including a True-Up TCOS.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

**AEPTCo subsidiaries in PJM  
 Worksheet - P  
 DEPRECIATION RATES  
 FOR TRANSMISSION PLANT PROPERTY ACCOUNTS  
 EFFECTIVE AS OF 3/11/2020**

**AEP INDIANA MICHIGAN TRANSMISSION COMPANY**

<b>TRANSMISSION PLANT</b>	<b>PLANT ACCT.</b>	<b>RATES Note 1</b>
Land Rights	350.1	1.66%
Structures & Improvements	352.0	1.77%
Station Equipment	353.0	2.43%
Towers & Fixtures	354.0	2.57%
Poles & Fixtures	355.0	3.19%
Overhead Conductor	356.0	2.35%
Underground Conduit	357.0	2.30%
Underground Conductors	358.0	1.93%
<b>GENERAL PLANT</b>		
Structures and Improvements	390	2.08%
Office Furniture and Equip.	391	4.79%
Stores Equipment	393	7.35%
Tools, Shop and Garage Equipment	394	6.99%
Laboratory Equipment	395	5.41%
Power Operated Equipment	396	4.81%
Communications Equipment	397	3.91%
Micellaneous Equipment	398	3.32%

**Note:** Per the Settlement in Docket No. ER10-355, Appendix A.1.2, AEP INDIANA MICHIGAN TRANSMISSION COMPANY shall use the depreciation rates shown above by FERC Account until such time as the FERC approves new depreciation rates pursuant to a Section 205 or 206 filing to change rates.

<b><u>Composite Depreciation Rate</u></b>	<b><u>OpCo Company</u></b>	<b><u>OpCo Company</u></b>	<b><u>TOTAL</u></b>
T-Plant (FF1 206.58.g)			
T-Plant (FF1 206.58.b)			
Average (Ln 1+ Ln 2)/2			
Depreciation (FF1 336.7.f)			
Composite Depreciation (Ln 3 / Ln 4)			

**Note:** Rates approved in Indiana Cause No. 45235 effective March 11, 2020.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

**AEPTCo subsidiaries in PJM  
 Worksheet - P  
 DEPRECIATION RATES  
 FOR TRANSMISSION PLANT PROPERTY ACCOUNTS  
 EFFECTIVE AS OF 7/1/2015**

**AEP KENTUCKY TRANSMISSION COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES Note 1</b>
<b>TRANSMISSION PLANT</b>		
Land Rights	350.1	1.44%
Structures & Improvements	352.0	2.08%
Station Equipment	353.0	2.15%
Towers & Fixtures	354.0	2.61%
Poles & Fixtures	355.0	3.95%
Overhead Conductor	356.0	2.91%
Underground Conduit	357.0	2.99%
Underground Conductors	358.0	2.62%
<b>GENERAL PLANT</b>		
Land Rights	389.1	1.59%
Structures & Improvements	390	3.97%
Office Furniture & Equipment	391	3.20%
Transportation Equipment	392	3.52%
Stores Equipment	393	4.15%
Tools Shop & Garage Equipment	394	4.20%
Laboratory Equipment	395	5.76%
Power Operated Equipment	396	5.43%
Communication Equipment	397	5.66%
Miscellaneous Equipment	398	6.73%

**Note:** Per the Settlement in Docket No. ER10-355, Appendix A.1.2, AEP KENTUCKY TRANSMISSION COMPANY shall use the depreciation rates shown above by FERC Account until such time as the FERC approves new depreciation rates pursuant to a Section 205 or 206 filing to change rates.

	<u>Composite Depreciation Rate</u>	<u>OpCo Company</u>	<u>OpCo Company</u>	<u>TOTAL</u>
1	T-Plant (FF1 206.58.g)			
2	T-Plant (FF1 206.58.b)			
3	Average (Ln 1+ Ln 2)/2			
4	Depreciation (FF1 336.7.f)			
5	Composite Depreciation (Ln 3 / Ln 4)			

**Note:** AEP KENTUCKY TRANSMISSION COMPANY shall initially use the composite depreciation rate for KPCCo shown above to estimate depreciation expense for transmission projects in Worksheets J and K until a composite depreciation rate based on transmission plant in service and depreciation expenses recorded by AEP KENTUCKY TRANSMISSION COMPANY for its own transmission facilities can be calculated in AEP KENTUCKY TRANSMISSION COMPANY's the first Annual Update including a True-Up TCOS.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

**AEPTCo subsidiaries in PJM  
 Worksheet - P  
 DEPRECIATION RATES  
 FOR TRANSMISSION PLANT PROPERTY ACCOUNTS  
 EFFECTIVE AS OF 3/11/2020**

**AEP OHIO TRANSMISSION COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES Note 1</b>
<b>TRANSMISSION PLANT</b>		
Land Rights	350.1	1.03%
Energy Storage Equipment	351.0	14.22%
Structures & Improvements	352.0	1.82%
Station Equipment	353.0	2.31%
Towers & Fixtures	354.0	2.26%
Poles & Fixtures	355.0	3.29%
Overhead Conductor	356.0	2.26%
Underground Conduit	357.0	3.00%
Underground Conductors	358.0	3.27%
<b>GENERAL PLANT</b>		
Structures & Improvements	390.0	2.66%
Office Furniture & Equipment	391.0	3.72%
Stores Equipment	393.0	4.43%
Tools Shop & Garage Equipment	394.0	4.59%
Laboratory Equipment	395.0	5.06%
Power Operated Equipment	396.0	4.71%
Communication Equipment	397.0	4.85%
Miscellaneous Equipment	398.0	4.25%

**Note:** Per the Settlement in Docket No. ER10-355, Appendix A.1.2, AEP OHIO TRANSMISSION COMPANY shall use the depreciation rates shown above by FERC Account until such time as the FERC approves new depreciation rates pursuant to a Section 205 or 206 filing to change rates.

<b><u>Composite Depreciation Rate</u></b>	<b><u>OpCo Company</u></b>	<b><u>OpCo Company</u></b>	<b><u>TOTAL</u></b>
T-Plant (FF1 206.58.g)			
T-Plant (FF1 206.58.b)			
Average (Ln 1+ Ln 2)/2			
Depreciation (FF1 336.7.f)			
Composite Depreciation (Ln 3 / Ln 4)			

**Note:** AEP OHIO TRANSMISSION COMPANY shall initially use the composite depreciation rate for APCo, I&M and KPCo shown above to estimate depreciation expense for transmission projects in Worksheets J and K until a composite depreciation rate based on transmission plant in service and depreciation expenses recorded by AEP OHIO TRANSMISSION COMPANY for its own transmission facilities can be calculated in AEP OHIO TRANSMISSION COMPANY's the first Annual Update including a True-Up TCOS.

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

**AEPTCo subsidiaries in PJM  
 Worksheet - P  
 DEPRECIATION RATES  
 FOR TRANSMISSION PLANT PROPERTY ACCOUNTS  
 EFFECTIVE AS OF 3/6/2019**

**AEP WEST VIRGINIA TRANSMISSION COMPANY**

	<b>PLANT ACCT.</b>	<b>RATES Note 1</b>
<b>TRANSMISSION PLANT</b>		
Energy Storage Equipment	351.0	14.22%
Structures & Improvements	352.0	1.62%
Station Equipment	353.0	2.37%
Towers & Fixtures	354.0	1.59%
Poles & Fixtures	355.0	2.71%
Overhead Conductor	356.0	1.53%
Underground Conduit	357.0	3.71%
Underground Conductors	358.0	5.24%
<b>GENERAL PLANT</b>		
Structures & Improvements	390.0	1.91%
Office Furniture & Equipment	391.0	3.17%
Stores Equipment	393.0	1.80%
Tools Shop & Garage Equipment	394.0	2.57%
Laboratory Equipment	395.0	4.01%
Power Operated Equipment	396.0	3.90%
Communication Equipment	397.0	4.98%
Miscellaneous Equipment	398.0	2.70%

**Note:** Per the Settlement in Docket No. ER10-355, Appendix A.1.2, AEP WEST VIRGINIA TRANSMISSION COMPANY shall use the depreciation rates shown above by FERC Account until such time as the FERC approves new depreciation rates pursuant to a Section 205 or 206 filing to change rates.

	<u>Composite Depreciation Rate</u>	<u>OpCo Company</u>	<u>OpCo Company</u>	<u>TOTAL</u>
1	T-Plant (FF1 206.58.g)			
2	T-Plant (FF1 206.58.b)			
3	Average (Ln 1+ Ln 2)/2			
4	Depreciation (FF1 336.7.f)			
5	Composite Depreciation (Ln 3 / Ln 4)			

**Note:** AEP WEST VIRGINIA TRANSMISSION COMPANY shall initially use the composite depreciation rate for APCo and WPCo shown above to estimate depreciation expense for transmission projects in Worksheets J and K until a composite depreciation rate based on transmission plant in service and depreciation expenses recorded by AEP WEST VIRGINIA TRANSMISSION COMPANY for its own transmission facilities can be calculated in AEP WEST VIRGINIA TRANSMISSION COMPANY's the first Annual Update including a True-Up TCOS.



Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEP East Consolidated Utility Capital Structure  
 Consolidation of Operating Companies' Capital Structure @ 12-31-  
 Worksheet Q Page 1

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b>Development of Long Term Debt Balances at Year End</b>							
1	Bonds (112.18.c&d)						
2	Less: Reacquired Bonds (112.19.c&d)						
3	LT Advances from Assoc. Companies (112.20.c&d)						
4	Senior Unsecured Notes (112.21.c&d) Excludes Spent Nuc Fuel Disp Fund						
5	Less: Fair Value Hedges (See Note on Ln 7 below)						
6	<b>Total Long Term Debt Balance</b>						
7	NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (page 257, Column H of the FFI)						
<b>Development of Long Term Debt Interest Expense</b>							
8	Interest on Long Term Debt (256-257.33.i)						
9	Amort of Debt Discount & Expense (117.63.c)						
10	Amort of Loss on Reacquired Debt (117.64.c)						
11	Less: Amort of Premium on Debt (117.65.c)						
12	Less: Amort of Gain on Reacquired Debt (117.66.c)						
13	Less: Hedge Interest on pp 256-257(i)						
14	LTD Interest Expense						
<b>Development of Cost of Preferred Stock and Preferred Dividends</b>							
15	Dividend Rate (p. 250-251. 7.a)						
16	Par Value (p. 250-251. 8.c)						
17	Shares Outstanding (p.250-251. 8.e)						
18	Monetary Value (Ln 16 * Ln 17)						
19	Dividend Amount (Ln 15 * Ln 18)						
20	Dividend Rate (p. 250-251. 7.a)						
21	Par Value (p. 250-251. 8.c)						
22	Shares Outstanding (p.250-251. 8.e)						
23	Monetary Value (Ln 21 * Ln 22)						
24	Dividend Amount (Ln 20 * Ln 23)						
25	Dividend Rate (p. 250-251. 7.a)						
26	Par Value (p. 250-251. 8.c)						
27	Shares Outstanding (p.250-251. 8.e)						
28	Monetary Value (Ln 26 * Ln 27)						
29	Dividend Amount (Ln 25 * Ln 28)						
30	Dividend Rate (p. 250-251. 7.a)						
31	Par Value (p. 250-251. 8.c)						
32	Shares Outstanding (p.250-251. 8.e)						
33	Monetary Value (Ln 31 * Ln 32)						
34	Dividend Amount (Ln 30 * Ln 33)						
35	<b>Preferred Stock (Lns 18, 23, 28,33)</b>						
36	<b>Preferred Dividends (Lns 19, 24, 29,34)</b>						
<b>Development of Common Equity</b>							
37	Proprietary Capital (112.16.c)						
38	Less: Preferred Stock (Ln 35 Above)						
39	Less: Account 216.1 (112.12.c)						
40	Less: Account 219.1 (112.15.c)						
41	<b>Balance of Common Equity</b>						
<b>Calculation of Capital Shares</b>							
42	Long Term Debt (Ln 6 Above)						
43	Preferred Stock (Ln 35 Above)						
44	Common Equity (Ln 41 Above)						
45	Total Company Structure						
46	LTD Capital Shares (Ln 42 / Ln 45)						
47	Preferred Stock Capital Shares (Ln 43 / Ln 45)						
48	Common Equity Capital Shares (Ln 44 / Ln 45)						
49	<b>RESERVED</b>						
50	Reserved						
51	Reserved						
52	Reserved						
<b>Calculation of Capital Cost Rate</b>							
53	LTD Capital Cost Rate (Ln 14 / Ln 6)						
54	Preferred Stock Capital Cost Rate (Ln 36 / Ln 35)						
55	Common Equity Capital Cost Rate						
	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b>Calculation of Weighted Capital Cost Rate</b>							
56	LTD Weighted Capital Cost Rate (Ln 46 * Ln 53)						
57	Preferred Stock Capital Cost Rate (Ln 47 * Ln 54)						
58	Common Equity Capital Cost Rate (Ln 48 * Ln 55)						
59	Total Company Structure						

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEP East Consolidated Utility Capital Structure  
 Consolidation of Operating Companies' Capital Structure @ 12-31-\_\_\_\_  
 Worksheet Q Page 2

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b>Development of Long Term Debt Balances at Year End</b>							
60	Bonds (112.18.c&d)						
61	Less: Reacquired Bonds (112.19.c&d)						
62	LT Advances from Assoc. Companies (112.20.c&d)						
63	Senior Unsecured Notes (112.21.c&d) Excludes Spent Nuc Fuel Disp Fund						
64	Less: Fair Value Hedges (See Note on Ln 66 below)						
65	<b>Total Long Term Debt Balance</b>						
66	NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (p. 257, Column H of the FFI)						
<b>Development of Long Term Debt Interest Expense</b>							
67	Interest on Long Term Debt (256-257.33.i)						
68	Amort of Debt Discount & Expense (117.63.c)						
69	Amort of Loss on Reacquired Debt (117.64.c)						
70	Less: Amort of Premium on Debt (117.65.c)						
71	Less: Amort of Gain on Reacquired Debt (117.66.c)						
72	Less: Hedge Interest on pp 256-257(i)						
73	LTD Interest Expense						
<b>Development of Cost of Preferred Stock and Preferred Dividends</b>							
74	Dividend Rate (p. 250-251. 7.a)						
75	Par Value (p. 250-251. 8.c)						
76	Shares Outstanding (p.250-251. 8.e)						
77	Monetary Value (Ln 75 * Ln 76)						
78	Dividend Amount (Ln 74 * Ln 77)						
79	Dividend Rate (p. 250-251. 7.a)						
80	Par Value (p. 250-251. 8.c)						
81	Shares Outstanding (p.250-251. 8.e)						
82	Monetary Value (Ln 80 * Ln 81)						
83	Dividend Amount (Ln 79 * Ln 82)						
84	Dividend Rate (p. 250-251. 7.a)						
85	Par Value (p. 250-251. 8.c)						
86	Shares Outstanding (p.250-251. 8.e)						
87	Monetary Value (Ln 85 * Ln 86)						
88	Dividend Amount (Ln 84 * Ln 87)						
89	Dividend Rate (p. 250-251. 7.a)						
90	Par Value (p. 250-251. 8.c)						
91	Shares Outstanding (p.250-251. 8.e)						
92	Monetary Value (Ln 90 * Ln 91)						
93	Dividend Amount (Ln 89 * Ln 92)						
94	<b>Preferred Stock (Lns 77, 82, 87,92)</b>						
95	<b>Preferred Dividends (Lns 78, 83, 88,93)</b>						
<b>Development of Common Equity</b>							
96	Proprietary Capital (112.16.c)						
97	Less: Preferred Stock (Ln 94 Above)						
98	Less: Account 216.1 (112.12.c)						
99	Less: Account 219.1 (112.15.c)						
100	Balance of Common Equity						
<b>Calculation of Capital Shares</b>							
101	Long Term Debt (Ln 65 Above)						
102	Preferred Stock (Ln 94 Above)						
103	Common Equity (Ln 100 Above)						
104	<b>Total Company Structure</b>						
105	LTD Capital Shares (Ln 101 / Ln 104)						
106	Preferred Stock Capital Shares (Ln 102 / Ln 104)						
107	Common Equity Capital Shares (Ln 103 / Ln 104)						
108	<b>RESERVED</b>						
109	<b>RESERVED</b>						
110	<b>RESERVED</b>						
111	<b>RESERVED</b>						
<b>Calculation of Capital Cost Rate</b>							
112	LTD Capital Cost Rate (Ln 73 / Ln 65)						
113	Preferred Stock Capital Cost Rate (Ln 95 / Ln 94)						
114	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b>Calculation of Weighted Capital Cost Rate</b>							
115	LTD Weighted Capital Cost Rate (Ln 105 * Ln 112)						
116	Preferred Stock Capital Cost Rate (Ln 106 * Ln 113)						
117	Common Equity Capital Cost Rate (Ln 107 * Ln 114)						
118	<b>Total Company Structure</b>						

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

AEP East Consolidated Utility Capital Structure  
 Consolidation of Operating Companies' Average Capital Structure  
 Worksheet Q Page 3

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b>Development of Average Long Term Debt</b>							
119	Average Bonds (Ln 1 + Ln 60) / 2						
120	Less: Average Reacquired Bonds (Ln 2 + Ln 61) / 2						
121	Average LT Advances from Assoc. Companies (Ln 3 + Ln 62) / 2						
122	Average Senior Unsecured Notes (Ln 4 + Ln 63) / 2						
123	Less: Average Fair Value Hedges (See Note on Ln 125 below)						
124	<b>Average Balance of Long Term Debt</b>						
125	NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (p. 257, Column H of the FFI)						
<b>Development of Long Term Debt Interest Expense</b>							
126	Interest on Long Term Debt (256-257.33.i)						
127	Amort of Debt Discount & Expense (117.63.c)						
128	Amort of Loss on Reacquired Debt (117.64.c)						
129	Less: Amort of Premium on Debt (117.65.c)						
130	Less: Amort of Gain on Reacquired Debt (117.66.c)						
131	Less: Hedge Interest on pp 256-257(i)						
132	<b>LTD Interest Expense</b>						
<b>Cost of Preferred Stock and Preferred Dividends</b>							
133	Average Balance of Preferred Stock (Ln 35 + Ln 94) / 2						
134	Preferred Dividends (Ln 36)						
<b>Development of Average Common Equity</b>							
135	Average Proprietary Capital (Ln 37 + Ln 96) / 2						
136	Less: Average Preferred Stock (Ln 133 Above)						
137	Less: Average Account 216.1 (Ln 39 + Ln 98) / 2						
138	Less: Average Account 219.1 (Ln 40 + Ln 99) / 2						
139	<b>Average Balance of Common Equity</b>						
<b>Calculation of Capital Shares</b>							
140	Average Balance of Long Term Debt (Ln 124 Above)						
141	Average Balance of Preferred Stock (Ln 133 Above)						
142	Average Balance of Common Equity (Ln 139 Above)						
143	Average of Total Company Structure						
144	Average Balance of LTD Capital Shares (Ln 140 / Ln 143)						
145	Average Balance of Preferred Stock Capital Shares (Ln 141 / Ln 143)						
146	Average Balance of Common Equity Capital Shares (Ln 142 / Ln 143)						
147	<b>Reserved</b>						
148	<b>Reserved</b>						
149	<b>Reserved</b>						
150	<b>Reserved</b>						
<b>Calculation of Capital Cost Rate</b>							
151	LTD Capital Cost Rate (Ln 132 / Ln 124)						
152	Preferred Stock Capital Cost Rate (Ln 134 / Ln 133)						
153	Common Equity Capital Cost Rate						
	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b>Calculation of Weighted Capital Cost Rate</b>							
154	LTD Weighted Capital Cost Rate (Ln 144 * Ln 151)						
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157	<b>ACTUAL WEIGHTED AVG COST OF CAPITAL</b>						

Intra-PJM Tariffs --> OPEN ACCESS TRANSMISSION TARIFF --> OATT VI. ADMINISTRATION AND STUDY OF NEW SERVICE REQUESTS; R --> OATT Attachment H-20B - AEPTCo - Part II - Worksheets A-R

**AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using Actual/Projected FF1 Balances  
 Worksheet R – True-up With Interest  
 (Hypothetical Example)**

Reconciliation Revenue Requirement For Year 2018 Available May 25, 2019	-	-	2018 Revenue Requirement Forecast by October 31, 2017	-	=	True-up Adjustment - Over (Under) Recovery	-
---	---	---	---	---	---	--	---

	Over (Under) Recovery Plus Interest	Average Monthly Interest Rate	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed
<b>Interest Rate on Amount of Refunds or Surcharges (Note 1)</b>		0.2780%				

An over or under collection will be recovered prorata over 2018, held for 2019 and returned prorata over 2020

<u>Calculation of Interest</u>			<u>Monthly</u>			
January	Year 2018	-	0.2780%	12	-	-
February	Year 2018	-	0.2780%	11	-	-
March	Year 2018	-	0.2780%	10	-	-
April	Year 2018	-	0.2780%	9	-	-
May	Year 2018	-	0.2780%	8	-	-
June	Year 2018	-	0.2780%	7	-	-
July	Year 2018	-	0.2780%	6	-	-
August	Year 2018	-	0.2780%	5	-	-
September	Year 2018	-	0.2780%	4	-	-
October	Year 2018	-	0.2780%	3	-	-
November	Year 2018	-	0.2780%	2	-	-
December	Year 2018	-	0.2780%	1	-	-
					Annual	
January through December	Year 2019	-	0.2780%	12	-	-

<u>Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months</u>			<u>Monthly</u>			
January	Year 2020	-	0.2780%	-	-	-
February	Year 2020	-	0.2780%	-	-	-
March	Year 2020	-	0.2780%	-	-	-
April	Year 2020	-	0.2780%	-	-	-
May	Year 2020	-	0.2780%	-	-	-
June	Year 2020	-	0.2780%	-	-	-
July	Year 2020	-	0.2780%	-	-	-

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	2020					
	Year	-		-	-	-
August	2020		0.2780%	-	-	-
	Year	-		-	-	-
September	2020		0.2780%	-	-	-
	Year	-		-	-	-
October	2020		0.2780%	-	-	-
	Year	-		-	-	-
November	2020		0.2780%	-	-	-
	Year	-		-	-	-
December	2020		0.2780%			
				<hr/>		
				-		
True-Up Adjustment with Interest					-	
Less Over (Under) Recovery					-	
Total Interest					-	

Note 1: The interest rate to be applied to the over recovery or under recovery amounts will be determined using the average monthly FERC interest rate (as determined pursuant to 18 C.F.R. Section 35.19a) for the twenty (20) months from the beginning of the rate year being trued-up through August 31 of the following year.

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**OPEN ACCESS**

**TRANSMISSION SERVICE TARIFF**

**OF THE**

**AMERICAN ELECTRIC POWER SYSTEM**

## Introduction AEPSC Explanation

American Electric Power Service Corporation, as agent for Appalachian Power Company, AEP Texas Inc., Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, Public Service Company of Oklahoma, Southwestern Electric Power Company, and Wheeling Power Company files this Tariff to comply with the Federal Energy Regulatory Commission's (FERC) Order No. 888, issued in Docket No. RM95-8-000, "Promoting Wholesale Competition through Open Access Non-discriminatory Transmission Service by Public Utilities," FERC Stats. & Regs., Regulations Preambles ¶ 31,036 (1996), reh'g, Order No. 888-A, FERC Stats. & Regs., Regulations Preambles ¶ 31,048 (1997), reh'g, Order No. 888-B, 81 FERC ¶ 61,248 (1997), reh'g, Order No. 888-C, 82 FERC ¶ 61,046 (1998). The transmission and ancillary services offered for sale under this Tariff are the transmission and ancillary services that the FERC has ordered public utilities subject to its jurisdiction to offer to Eligible Customers, as that term is defined in this Tariff. This Tariff also implements certain of the transmission access and service pricing policies of the Public Utilities Commission of Texas generally in accordance with Chapter 25 of that Commission's Substantive Rules. If the PUCT Chapter 25 of the PUCT's Substantive Rules or Order No. 888 is modified in the future, the terms on which transmission and ancillary services are offered under this Tariff may also be modified pursuant to the provisions of Section 9 of this Tariff.

Public Service Company of Oklahoma and Southwestern Electric Power Company are members of the Southwest Power Pool. The SPP offers certain transmission services acting as their designated agent under the Open Access Transmission Tariff for Service Offered by Southwest Power Pool filed with the Federal Energy Regulatory Commission (SPP Tariff).

Beginning October 1, 2004, PJM is the Transmission Provider for the AEP East Zone operating companies, which include Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, and Wheeling Power Company. As the transmission provider for the AEP East Zone operating companies, PJM offers certain transmission services under their Open Access Transmission Tariff filed with the Federal Energy Regulatory Commission (PJM Tariff).

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Proforma Interconnection and Local Delivery Service Agreement

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## I COMMON SERVICE PROVISIONS

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## ***1 Definitions***

### **AEP East Zone:**

The integrated electric utility system consisting of the generating and transmission facilities of Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, and Wheeling Power Company, or their successors in interest to the transmission business. On October 1, 2004, PJM became the Transmission Provider for the AEP East Zone.

### **AEP Operating Companies:**

The public utilities that own the transmission facilities in the AEP East Zone and the AEP West Zone and operate the transmission facilities in the AEP West Zone. On October 1, 2004, PJM began operating the AEP East Zone transmission facilities.

### **AEP Texas:**

AEP Texas Inc., the successor in interest to AEP Texas Central Company and AEP Texas North Company which now operate as Central Division and North Division of AEP Texas, respectively, or the successor in interest to the transmission business of AEP Texas.

### **AEP West Zone:**

The integrated electric utility system consisting of the electric generating (as applicable)

and transmission facilities of PSO, SWEPCO and AEP Texas, or their successor in interest to the transmission business.

**Ancillary Services:**

Those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

**Application:**

A request by an Eligible Customer for transmission service pursuant to the provisions of the Tariff.

**Central Division:**

The portion of the AEP Texas transmission business formerly operated as AEP Texas Central Company.

**Chapter 25:**

Chapter 25, Subchapter I, Division 1 of the PUCT's Substantive Rules, as amended from time to time.

**Commission:**

The Federal Energy Regulatory Commission.



**Completed Application:**

An Application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**Control Area:**

An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

(1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);

(2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;

(3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and

(4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**Curtailment:**

A reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

**Designated Agent:**

Any entity that performs actions or functions on behalf of the Transmission Provider, an

Eligible Customer, or the Transmission Customer required under the Tariff.

**Direct Assignment Facilities:**

Facilities or portions of facilities that are constructed by the Transmission Provider for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff.

Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

**Eligible Customer:**

(i) Any electric utility (including the Transmission Provider and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. For purposes of Part IV of this Tariff, an Eligible Customer shall also be any Distribution Service Provider, as that term is defined in Chapter 25, that distributes electricity to retail customers on behalf of a Retail Electric Provider (REP) and any Non Opt-In Entity, as that term is defined in the ERCOT Protocols, that distributes electricity to retail customers in ERCOT. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by Section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider offer the unbundled transmission service, or pursuant to a voluntary offer of such service by the Transmission Provider.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider offer the transmission service, or pursuant to a

voluntary offer of such service by the Transmission Provider, is an Eligible Customer under the Tariff.

**ERCOT:**

Electric Reliability Council of Texas, which in a geographic sense refers to the area served by electric utilities that are not synchronously interconnected with electric utilities outside of the State of Texas, or its successor in function.

**ERCOT Protocols:**

Shall mean the documents adopted by ERCOT, and approved by the PUCT, including any attachments or exhibits referenced in the Protocols, as amended from time to time, that contain the scheduling, operating, planning, reliability, and settlement (including customer registration) policies, rules, guidelines, procedures, standards, and criteria of ERCOT.

**ERCOT IO:**

A Texas nonprofit corporation that has been certified by the PUCT as the Independent Organization for the ERCOT Region.

**ERCOT Regional Transmission Service:**

The Transmission Service offered under Part IV of this Tariff.

**ERCOT Regional Transmission Service Customer:**

An Eligible Customer taking ERCOT Regional Transmission Service under Part IV of this Tariff.

**ERCOT Transmission Network:**

The interconnected bulk power delivery system comprised of the transmission systems located and operated in ERCOT, including the AEP Texas Transmission System.

**Facilities Study:**

An engineering study conducted by the Transmission Provider, or its agent, to determine the required modifications to the Transmission Provider's Transmission System, or the ERCOT Transmission Network, including the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service.

**Good Utility Practice:**

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(a)(4).

**High Voltage Direct Current Facilities (or HVDC Facilities)**

Either (i) the North Interconnection, consisting of high voltage back-to-back converters and related facilities on either side of the ERCOT-SPP border at Oklaunion, Texas, having a

nominal capacity of 200 MW, or (ii) the East Interconnection consisting of: (a) a 345 kV alternating current (AC) switchyard facility at the Oncor Electric Monticello generating station necessary for the interconnection of the Oncor Electric AC electric system with the Welsh-Monticello Line; (b) the Welsh-Monticello Line, which is a 345 kV AC transmission line between the Monticello Switchyard Facility described in the preceding clause and the High Voltage Direct Current (HVDC) Terminal described in the succeeding clause; (c) the HVDC Terminal, consisting of high voltage back-to-back converters, having a nominal capacity of 600 MW, of which the Transmission Provider and its affiliates own 300 MW, and related facilities and the land on which such facilities are located; and (d) a 345 kV AC switchyard facility at the SWEPCO Welsh generating station necessary for the interconnection of the SWEPCO AC electric system with such HVDC Terminal, or (iii) the Eagle Pass Interconnection consisting of high voltage back-to-back converters and related facilities on the United States side of the U.S. - Mexico border at Eagle Pass, Texas, having a nominal capacity of 36 MW or (iv) any combination of the North Interconnection, the East Interconnection and the Eagle Pass Interconnection.

**Interconnection Agreement:**

An agreement between an Eligible Customer that owns electric facilities in ERCOT and one or more of the ERCOT Transmission Providers that sets forth requirements for physical connection and interconnected operations. A Transmission Customer that owns electrical facilities in ERCOT must have such an agreement with each of the ERCOT Transmission Providers to which the Transmission Customer is physically connected.

**North Division:**

**The portion of the AEP Texas transmission business formerly operated as AEP**

**Texas North Company.**

**Part I:**

Tariff Definitions and Common Service Provisions contained in Sections 1 through 12.

**Part IV:**

Tariff Sections 36 through 40 pertaining to the use of the AEP Texas Transmission System operated in ERCOT in conjunction with the use by a Transmission Customer of the ERCOT Transmission Network to serve load within ERCOT and in conjunction with the applicable Common Service Provisions of Part I and the applicable Schedules and Attachments.

**PJM:**

PJM Interconnection, L.L.C., or its successor in function.

**PSO:**

Public Service Company of Oklahoma, or the successor in interest to the transmission business of PSO.

**PUCT:**

Public Utility Commission of Texas.

**QSE:**

A person qualified by the ERCOT IO to submit schedules to and settle payments with,

the ERCOT IO.

**Service Agreement:**

The initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider and/or the Transmission Owner for service under the Tariff.

**Service Commencement Date:**

The date the Transmission Provider begins to provide service pursuant to the terms of an executed Service Agreement, or the date the Transmission Provider begins to provide service in accordance with Section 38.4 under the Tariff.

**SPP:**

Southwest Power Pool, or its successor in function.

**SWEPCO:**

Southwestern Electric Power Company, or the successor in interest to the transmission business of SWEPCO.

**System Impact Study:**

An assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a request for ERCOT Regional Transmission Service and (ii) whether any additional costs may be incurred in order to provide transmission service.

**Transmission Customer:**

Any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that the Transmission Provider file with the Commission, a proposed unexecuted Service Agreement to receive transmission service under the Tariff. This term is used in the Part I Common Service Provisions to include customers receiving transmission service under this Tariff.

**Transmission Provider:**

The public utilities (or their Designated Agent) that own, control, or operate facilities used for the transmission of electric energy in interstate commerce and provide transmission service under the Tariff; provided, however, that in the case of service provided on the ERCOT Transmission Network under Part IV of this Tariff, the term refers in the plural form to all transmitting utilities that operate in ERCOT, when preceded by an indefinite article the term in the singular form refers to any such transmitting utility and when preceded by the definite article the term in the singular form refers to AEP Texas.

**Transmission System:**

The facilities owned, controlled or operated in ERCOT at or above 60 kilovolts owned, controlled, operated or supported by a Transmission Provider that are used to provide transmission service in ERCOT under Part IV of this Tariff, including the HVDC Facilities (such facilities of AEP Texas being referred to herein collectively as the "AEP Texas Transmission System" and all such facilities in the aggregate being referred to herein as the "ERCOT Transmission Network." ).



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2-6, 2-6 Reserved, 2.0.0 A

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## **2 RESERVED**

## **3 RESERVED**

## **4 RESERVED**

## **5 RESERVED**

## **6 RESERVED**

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## **7 Billing and Payment**

### **7.1 Billing Procedure:**

Within a reasonable time after the first day of each month, the Transmission Provider shall submit an invoice to the Transmission Customer for the charges for all services furnished under the Tariff during the preceding month. The invoice rendered for service under Part IV of this Tariff shall be paid by the ERCOT Regional Transmission Service Customer within the time period specified in Chapter 25. All payments shall be made in immediately available funds payable to the Transmission Provider or by wire transfer to a bank named by the

Transmission Provider.

### **7.2 Interest on Unpaid Balances:**

Interest on unpaid amounts for service provided under Part IV, shall be calculated pursuant to Chapter 25. Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment. When payments are made by mail, bills shall be considered as having been paid on the date of receipt by the Transmission Provider.

### **7.3 Customer Default:**

Section 39.2 of this Tariff shall govern customer default for service provided under Part IV of this Tariff.

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### **8 RESERVED**

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9, 9 Regulatory Filings, 2.0.0A

### **9 Regulatory Filings**

Nothing contained in the Tariff or any Service Agreement shall be construed as affecting

in any way the right of the Transmission Provider to unilaterally make application to the Commission for a change in rates, terms and conditions, charges, classification of service, Service Agreement, rule or regulation under Section 205 of the Federal Power Act and pursuant to the Commission's rules and regulations promulgated thereunder.

Nothing contained in the Tariff or any Service Agreement shall be construed as affecting in any way the ability of any Party receiving service under the Tariff to exercise its rights under the Federal Power Act and pursuant to the Commission's rules and regulations promulgated thereunder.

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## ***10 Force Majeure and Indemnification***

### **10.1 Force Majeure:**

An event of Force Majeure means any act of God, labor disturbance, act of the public enemy, war, insurrection, riot, fire, storm or flood, explosion, breakage or accident to machinery or equipment, any Curtailment, order, regulation or restriction imposed by governmental military or lawfully established civilian authorities, or any other cause beyond a Party's control. A Force Majeure event does not include an act of negligence or intentional wrongdoing. Neither the Transmission Provider nor the Transmission Customer will be considered in default as to any obligation under this Tariff if prevented from fulfilling the

obligation due to an event of Force Majeure. However, a Party whose performance under this Tariff is hindered by an event of Force Majeure shall make all reasonable efforts to perform its obligations under this Tariff.

## 10.2 Indemnification:

The Transmission Customer shall at all times indemnify, defend, and save the Transmission Provider harmless from, any and all damages, losses, claims, including claims and actions relating to injury to or death of any person or damage to property, demands, suits, recoveries, costs and expenses, court costs, attorney fees, and all other obligations by or to third parties, arising out of or resulting from the Transmission Provider's performance of its obligations under this Tariff on behalf of the Transmission Customer, except in cases of negligence or intentional wrongdoing by the Transmission Provider.

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## 11 Creditworthiness

The Transmission Provider will specify its Creditworthiness Procedures in Attachment N.

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12, 12 Dispute Resolution Procedures, 2.0.0 A

## **12 Dispute Resolution Procedures**

### **12.1 RESERVED**

### **12.2 RESERVED**

### **12.3 RESERVED**

### **12.4 RESERVED**

### **12.5 Arbitration under Part IV:**

Any arbitration initiated with regard to service under Part IV of this Tariff shall be conducted under the arbitration procedures set forth in the ERCOT Protocols.

### **12.6 Rights Under The Federal Power Act:**

Nothing in this section shall restrict the rights of any party to file a Complaint with the Commission under relevant provisions of the Federal Power Act.

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Part II, Part II RESERVED Point to Point Transmission Service, 2.0.0 A

## **II RESERVED**

Point-to-Point Transmission Service is no longer provided under this Tariff. Part II and its sections 13 through 27 are reserved.

SPP is the sole provider of transmission services for the AEP West Zone operating companies. As the transmission provider for the AEP West Zone operating companies, SPP offers certain transmission services under the SPP Tariff.

PJM is the Transmission Provider for the AEP East Zone operating companies. As the transmission provider for the AEP East Zone operating companies, PJM offers certain transmission services under the PJM Tariff.

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Part III, Part III RESERVED Network Integration Transmission Service, 2.0.0 A

## III RESERVED

Network Integration Transmission Service is no longer provided under this Tariff. Part III and its sections 28 through 35 are reserved.

SPP is the sole provider of transmission services for the AEP West Zone operating companies. As the transmission provider for the AEP West Zone operating companies, SPP offers certain transmission services under the SPP Tariff.

PJM is the Transmission Provider for the AEP East Zone operating companies. As the transmission provider for the AEP East Zone operating companies, PJM offers certain transmission services under the PJM Tariff.

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Part IV, Part IV ERCOT Regional Transmission Service, 3.0.0 A

## IV ERCOT REGIONAL TRANSMISSION SERVICE

### *Preamble*

AEP Texas will participate in the provision of ERCOT Regional Transmission Service in accordance with ERCOT Protocols and the terms and conditions set forth in this Part IV and a Transmission Customer's Service Agreement. Chapter 25 sets forth the principles by which the responsibility for the costs of owning, operating, maintaining and expanding the ERCOT Transmission Network will be distributed among all electric utility entities operating in ERCOT. In the event of any conflict between this Tariff and Chapter 25 or ERCOT Protocols, or any future modification of the PUCT's Substantive Rules or ERCOT Protocols, the provisions of this

Tariff will control.

Appalachian Power Company as of 4/9/2018  
Electric TCS and MBR  
Open Access Transmission Tariff  
Effective Date: 06/20/2017 Status: Effective  
FERC Docket: ER17-01500-000 696  
FERC Order: Delegated Letter Order Order Date:  
08/23/2017  
36, 36 ERCOT Regional Transmission Service, 3.0.0 A

### ***36 ERCOT Regional Transmission Service***

#### **36.1 Purpose:**

This Part IV sets forth the terms and conditions that shall govern the participation by AEP Texas in assuring non-discriminatory access to use of the ERCOT Transmission Network required to serve loads in ERCOT and to deliver electric power from ERCOT. Transmission service provided pursuant to this Part IV together with like service provided by other Transmission Providers in accordance with Chapter 25 allows an Eligible Customer operating in ERCOT to receive energy from its resources to serve loads within ERCOT and to deliver electric power from ERCOT.

#### **36.2 Nature of Transmission Service**

Scope of Service.

The transmission service offered under this Part IV allows ERCOT Regional Transmission Service Customers to use the ERCOT Transmission Network for the delivery of the output of electric power resources to serve loads within ERCOT and to export electric power from within ERCOT to the boundaries of ERCOT. Under this Part IV, an ERCOT Regional Transmission

Service Customer shall be any Eligible Customer. The ERCOT Regional Transmission Service Customer must make arrangements for service with all other ERCOT Transmission Providers in accordance with Chapter 25. Under this Part IV, an ERCOT Regional Transmission Service Customer shall have the right, as contemplated by Chapter 25, to use the ERCOT Transmission Network on a basis similar to the use made by AEP Texas of the Transmission System. ERCOT Regional Transmission Service Customers taking transmission service under this Part IV must arrange Ancillary Services pursuant to the ERCOT Protocols. AEP will provide QSE and ancillary services only to those ERCOT Regional Transmission Service Customers with whom AEP has an interim QSE Agreement. These customers may obtain comparable ancillary services from the ERCOT IO in its capacity as supplier of last resort.

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37, 37 Availability of Transmission Service, 3.0.0	A		

### ***37 Availability of Transmission Service***

#### **37.1 General Conditions:**

In accordance with the provisions of this Tariff, AEP Texas shall make ERCOT Regional Transmission Service available to any Eligible Customer on a non-discriminatory basis.

#### **37.2 Transmission Service Requirements:**

As a condition to obtaining ERCOT Regional Transmission Service under this Part IV, an Eligible Customer that owns electric facilities in ERCOT shall execute Interconnection



Agreements with AEP Texas and other ERCOT Transmission Providers to which such customer is physically connected.

### **37.3 Transmission Provider Responsibilities:**

AEP Texas shall plan, construct, operate and maintain the AEP Texas Transmission System in accordance with Good Utility Practice in order to provide ERCOT Regional Transmission Service Customers with ERCOT Regional Transmission Service over the AEP Texas Transmission System in accordance with this Tariff. AEP Texas shall, consistent with Good Utility Practice, endeavor to construct and place into service transmission capacity to ensure adequacy and reliability of the transmission network to deliver power from the ERCOT Regional Transmission Service Customer's resources to serve the ERCOT Regional Transmission Service Customer's load in ERCOT and to deliver the ERCOT Regional Customer's power from ERCOT. AEP Texas shall plan, construct, operate, and maintain facilities that are needed to relieve transmission constraints, as recommended by the ERCOT IO and approved by the PUCT, in order to provide service under this Part IV.

### **37.4 Construction of New Facilities:**

If additional transmission facilities or interconnections between electric utilities are needed to provide transmission service pursuant to a request for such service, the Transmission Provider, to the extent the constraint exists on the AEP Texas Transmission System, shall construct or acquire the facilities necessary to permit the transmission service to be provided, unless the ERCOT IO identifies an alternative means of providing the transmission service that is less costly, operationally sound, and relieves the transmission constraint at least as efficiently

as would the construction of additional transmission facilities.

(1) When an Eligible Customer requests ERCOT Regional Transmission Service for a new generating source that is planned to be interconnected with the AEP Texas Transmission System, the Eligible Customer shall be responsible for the cost of installing step-up transformers to transform the output of the generator to a transmission voltage level and a protective device at the point of interconnection capable of electrically isolating the generating source owned by the transmission service customer. The Transmission Provider shall be responsible for the cost of installing any other interconnection facilities that are designed to operate at a transmission voltage level and any other transmission system upgrades on its transmission system that may be necessary to accommodate the requested transmission service.

(a) The Transmission Provider may require the Eligible Customer to pay a reasonable deposit, or provide another means of security, to cover the costs of planning, licensing, and constructing any new transmission facilities that will be required in order to provide the requested service.

(b) If the new generating source is completed and the ERCOT Regional Transmission Service Customer begins to take the requested transmission service, the Transmission Provider shall return the deposit or security to the ERCOT Regional Transmission Service Customer. If the new generating source is not completed and new transmission facilities are not required, the Transmission Provider may retain as much of the deposit or security as is required to cover the costs it incurred in planning, licensing, and constructing the planned new transmission facilities. Any repayment of a cash deposit shall include interest calculated in the manner

described in 18 C.F.R. § 35.19(a).

(2) Curtailment of service. In an emergency situation, as determined by the ERCOT IO and at its direction, the Transmission Provider may interrupt transmission service on a non-discriminatory basis, if necessary, to preserve the stability of the transmission network and service to customers. Such curtailments shall be carried out in accordance with Part IV of this Tariff, and the ERCOT Protocols.

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38, 38 Initiating Service, 3.0.0	A		

### ***38 Initiating Service***

Each Eligible Customer that requests the use of the ERCOT Transmission Network to serve its customers in ERCOT from its resources, or to make sales of energy to a third party in ERCOT from its resources or to export electric power from ERCOT, may apply for transmission service pursuant to this Part IV and Chapter 25. The Eligible Customer and AEP Texas shall provide the information that is required under this Part IV to the ERCOT IO, with a copy to AEP Texas.

#### **38.1 Conditions Precedent for Receiving Service:**

Subject to the terms and conditions of Part IV of this Tariff and in accordance with Chapter 25 and the ERCOT Protocols, AEP Texas will provide transmission service to any Eligible Customer that requests service, provided that:

(a) the Eligible Customer has completed an Application for service as provided under this Section 38;

(b) the Eligible Customer and AEP Texas have completed the technical arrangements contemplated by this Section 38;

(c) if the Eligible Customer operates electrical facilities that are connected to the facilities of AEP Texas, the Eligible Customer has executed all Interconnection Agreements required for service under this Tariff or, if necessary, requested in writing pursuant to Section 38.10 of this Tariff that a Transmission Provider file a proposed unexecuted Interconnection Agreement with the regulatory agency having jurisdiction;

(d) the Eligible Customer has either executed a Service Agreement or requested in writing pursuant to Section 38.10 of this Tariff that AEP Texas file an unexecuted Service Agreement with the Commission.

### **38.2 Application Procedures for ERCOT Regional Transmission Service:**

(a) An Eligible Customer requesting ERCOT Regional Transmission Service under Part IV of this Tariff must submit an Application for service. A Completed Application shall provide the information required in subsection (b) below. The Eligible Customer shall provide the information that is required under subsection (b) below to the ERCOT IO, with a copy to AEP Texas.

(b) The Eligible Customer must provide all information deemed necessary by the ERCOT IO to evaluate the request for transmission service.

(c) Chapter 25 requires the ERCOT IO to acknowledge a request for service within ten business days of receipt. When the request is complete, the acknowledgment will include a date by which a response will be sent to the Eligible Customer and a statement of any fees associated with responding to the request (e.g., fees for system studies).

(d) If an Application fails to provide the ERCOT IO with all information deemed necessary, Chapter 25 requires the ERCOT IO to notify the Eligible Customer requesting service within 15 business days of receipt thereof and specify the reasons for such failure. Chapter 25 requires the ERCOT IO, wherever possible, to attempt to remedy deficiencies in an Application through informal communications with an Eligible Customer.

(e) If a System Impact Study is required, upon approval of the requesting Transmission Customer, Chapter 25 requires the ERCOT IO to perform or direct the Transmission Provider to prepare such a study. If the ERCOT IO concludes that the AEP Texas Transmission System is adequate to accommodate the request for service, either in whole or in part, or that no costs are likely to be incurred for new transmission facilities or upgrades, the Transmission Provider will tender a Service Agreement for ERCOT Regional Transmission Service, within 15 business days of completion of the System Impact Study.

(f) If the ERCOT IO determines as a result of a System Impact Study that additions or upgrades to the AEP Texas Transmission System are needed to supply the Eligible Customer's forecasted requirements for ERCOT Regional Transmission Service, the Transmission Provider will, upon approval of the requesting Eligible Customer, initiate a Facilities Study. When completed, a Facilities Study will include an estimate of the cost of any required facilities or

upgrades, and the time required to complete such construction and initiate the requested service.

(g) Chapter 25 requires that when the Eligible Customer applies for transmission service for a new resource under this section, the ERCOT IO shall notify affected Transmission Providers of the application and request comments concerning the scope of any System Impact Study. Chapter 25 requires the ERCOT IO to complete the System Impact Study and provide the results to the Eligible Customer within 90 days after the receipt of an executed study agreement and receipt from the Eligible Customer of all the data necessary to complete the study. In the event the ERCOT IO is unable to complete the study within the 90 day period, it will provide the Eligible Customer a written explanation of when the study will be completed and the reason for the delay.

The Eligible Customer shall be responsible for the cost of the System Impact Study and shall be provided with the results thereof, including relevant work papers.

### **38.3 Facilities Study:**

(a) Based on the results of the System Impact Study, the Transmission Provider shall perform, or cause to be performed, pursuant to an executed Facilities Study agreement with the Eligible Customer, a Facilities Study addressing the detailed engineering, design and cost of facilities required to provide the requested ERCOT Regional Transmission Service.

(b) The Transmission Provider will complete the Facilities Study as soon as reasonably practicable using information developed in the System Impact Study. Upon completion of the Facilities Study, the Transmission Provider shall notify the Eligible Customer

whether the Transmission Provider considers that a contribution in aid of construction is appropriate and the amount of the contribution that the Eligible Customer should make. The Transmission Provider shall base its request on the information in the System Impact Study and the Facilities Study and the provisions in this Part IV.

(c) The Eligible Customer shall be responsible for the reasonable cost of the Facilities Study pursuant to the terms of the Facilities Study agreement and shall be provided with the results thereof, including relevant workpapers.

(d) The Transmission Provider shall be responsible for the costs of any Facilities Study undertaken to determine the engineering, design and cost of facilities associated with the addition of new resources used to serve load of AEP Texas. Such costs will be booked separately by the AEP Texas Central Division and AEP Texas North Division, as the case may be.

(e) When completed, the Facilities Study will include a good faith estimate of (i) the cost of Direct Assignment Facilities to be charged to the Eligible Customer, and (ii) the Eligible Customer's appropriate share of the cost of any required facilities for which the Eligible Customer is responsible under Chapter 25, and (iii) the time required to complete such construction and initiate the requested service. The Eligible Customer shall provide the Transmission Provider with a letter of credit or other reasonable form of security acceptable to the Transmission Provider equivalent to the costs of new facilities or upgrades consistent with commercial practices as established by the Uniform Commercial Code. The Eligible Customer shall have thirty (30) days to execute a Service Agreement or request the filing of an unexecuted Service Agreement and provide the required letter of credit or other form of

security or the request no longer will be a Completed Application and shall be deemed terminated and withdrawn.

#### **38.4 Technical Arrangements to be Completed Prior to Commencement of Service:**

Service under this Tariff shall not commence until the installation of all equipment specified in the Interconnection Agreement has been completed in a manner consistent with guidelines adopted by the national reliability organization and the ERCOT IO, except that the Transmission Provider shall provide the requested ERCOT Regional Transmission Service to the extent that such service does not impair the reliability of other ERCOT Regional Transmission Service. The Transmission Provider shall exercise reasonable efforts, in coordination with the ERCOT Regional Transmission Service Customer, to complete such arrangements as soon as practical prior to the Service Commencement Date.

#### **38.5 ERCOT Regional Transmission Service Customer Facilities**

The provision of ERCOT Regional Transmission Service shall be conditioned upon the ERCOT Regional Transmission Service Customer's constructing, maintaining and operating the facilities on its side of each point of interconnection to the ERCOT Transmission Network that are necessary reliably to interconnect and deliver electric power from a resource to the ERCOT Transmission Network and from the ERCOT Transmission Network to the ERCOT Regional Transmission Service Customer's loads.

#### **38.6 Transmission Arrangements for Loads or Resources Located Outside of ERCOT Region:**

It shall be the ERCOT Regional Transmission Service Customer's responsibility to make



any transmission arrangements necessary for delivery of electric power produced from a resource inside or outside of ERCOT to the interconnection with ERCOT.

**38.7 Changes in Service Requests:**

Under no circumstances shall an ERCOT Regional Transmission Service Customer's decision to cancel or delay the addition of a new resource in any way reduce or relieve the ERCOT Regional Transmission Service Customer's obligation to pay the costs expended by the Transmission Provider to conduct the Facility Study.

**38.8 Annual Load and Resource Information Updates:**

The ERCOT Regional Transmission Service Customer shall provide the ERCOT IO with annual updates of load and resource forecasts. The ERCOT Regional Transmission Service Customer also shall provide the ERCOT IO with timely written notice of material changes in any other information provided in its Application relating to the ERCOT Regional Transmission Service Customer's load, resources, its transmission system or other aspects of its facilities or operations affecting the Transmission Provider's ability to provide reliable service under this Tariff. AEP Texas will provide the ERCOT IO similar information.

**38.9 Termination of Transmission Service:**

An ERCOT Regional Transmission Service Customer may terminate service under this Tariff after providing the Transmission Provider and ERCOT with written notice of the ERCOT Regional Transmission Service Customer's intention to terminate. An ERCOT Regional Transmission Service Customer's provision of notice to terminate service under this Tariff shall not relieve the ERCOT Regional Transmission Service Customer of its obligation to pay the

Transmission Provider any rates, charges, or fees, including contributions in aid of construction, or for service previously provided under the applicable interconnection service agreement and that are owed to the Transmission Provider as of the date of termination.

### **38.10 Initiating Service in the Absence of an Executed Service Agreement:**

If the Transmission Provider and an Eligible Customer requesting ERCOT Regional Transmission Service under this Part IV cannot agree on all the terms and conditions of the Service Agreement, the Transmission Provider shall file with the Commission, no later than thirty (30) days after the date the Eligible Customer provides written notification directing the Transmission Provider to file, an unexecuted Service Agreement containing terms and conditions deemed appropriate by the Transmission Provider for such requested ERCOT Regional Transmission Service. Upon acceptance for filing by the Commission of such unexecuted agreement, the ERCOT Regional Transmission Service Customer shall be deemed to have agreed to (i) compensate the Transmission Provider at whatever rate the Commission ultimately determines to be just and reasonable, and (ii) comply with all other terms and conditions of this Tariff.

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07/30/2014  
39, 39 Rates and Charges, 2.0.0 A

### **39 Rates and Charges**

An ERCOT Regional Transmission Service Customer taking ERCOT Regional Transmission Service under this Tariff shall pay the Transmission Provider for any Direct Assignment Facilities,

applicable study costs, and local distribution facilities charges consistent with Commission policy, along with the following charges:

**39.1 Demand Charge for ERCOT Regional Transmission Service:**

An ERCOT Regional Transmission Service Customer taking ERCOT Regional Transmission Service under Part IV of this Tariff shall pay the Transmission Provider a monthly demand charge. The monthly demand charge under this Tariff for ERCOT Regional Transmission Service shall be the charges set forth in Attachment K.

**39.2 Commercial Terms for Transmission Service:**

Billing and Payment: Within a reasonable time after the first day of each month, the Transmission Provider shall issue invoices for the prior month's transmission service to the ERCOT Regional Transmission Service Customers.

(1) An invoice for transmission service shall be paid so that the Transmission Provider will receive the funds by the 35th calendar day after the date of issuance of the invoice, unless the Transmission Provider and the ERCOT Regional Transmission Service Customer agree on another mutually acceptable deadline. All payments shall be made in immediately available funds payable to the Transmission Provider or by wire transfer to a bank named by the service provider or by other mutually acceptable terms.

(2) Interest on any delinquent amounts shall be calculated from the due date of the bill to the date of payment and compounded monthly using the interest rate set by the Commission in accordance with 18 CFR §35.19(a). When payments are made by mail, bills

shall be considered as having been paid on the date of receipt by the Transmission Provider.

(3) In the event the ERCOT Regional Transmission Service Customer fails, for any reason other than a billing dispute as described in subparagraph (A) of this paragraph, to make payment to the Transmission Provider on or before the due date, and such failure of payment is not corrected within 30 calendar days after the Transmission Provider notifies the ERCOT Regional Transmission Service Customer to cure such failure, the customer shall be deemed to be in default.

(A) Upon the occurrence of a default, the Transmission Provider may initiate a proceeding with the Commission to terminate service. If the Commission finds that a default has occurred the ERCOT Regional Transmission Service Customer shall pay to the Transmission Provider an amount equal to two times the amount of the payment that the customer fails to pay in addition to any other remedy ordered by the commission. In the event of a billing dispute between the Transmission Provider and the ERCOT Regional Transmission Service Customer, the Transmission Provider will continue to provide service during the pendency of the proceeding, as long as the ERCOT Regional Transmission Service Customer:

- (i) continues to make all payments not in dispute;
- (ii) pays into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute.

(B) If the ERCOT Regional Transmission Service Customer fails to meet the requirements in subparagraph (A) of this paragraph, then the Transmission Provider will

provide notice to the ERCOT Regional Transmission Service Customer and to the Commission of its intention to terminate service.

(C) Any dispute arising in connection with the termination or proposed termination of service shall be referred to the alternative dispute resolution process described in Chapter 25.

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40, 40 System Reliability, 3.0.0	A		

### **40 System Reliability**

(a) Notwithstanding any other provision of Part IV of this Tariff, the Transmission Provider reserves the right, consistent with Good Utility Practice and on a non-discriminatory basis, to interrupt ERCOT Regional Transmission Service provided under this Part IV without liability on the part of the Transmission Provider for the purpose of making necessary adjustments to, changes in, or repairs to its lines, substations and other facilities, or where the continuance of ERCOT Regional Transmission Service would endanger persons or property.

(b) In the event of any adverse condition or disturbance on the AEP Texas Transmission System or on any other system directly or indirectly interconnected with the AEP Texas Transmission System, the Transmission Provider, consistent with Good Utility Practice, also may interrupt ERCOT Regional Transmission Service provided under this Part IV on a

non-discriminatory basis in order to limit the extent or damage of such adverse condition or disturbance, prevent damage to generating or transmission facilities, or expedite restoration of service.

(c) The Transmission Provider will give the ERCOT IO and affected ERCOT Regional Transmission Service Customers as much advance notice as is practicable in the event of any such interruption.

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FERC Order: Delegated Letter Order Order Date:  
08/23/2017  
41, 41 ERCOT Ancillary Services, 3.0.0 A

### **41 ERCOT Ancillary Services**

The Transmission Provider shall not provide ERCOT Ancillary Services under this Tariff. ERCOT Regional Transmission Service Customers shall obtain all ERCOT Ancillary Services pursuant to the procedures set forth in the ERCOT Protocols. AEP will provide QSE and ancillary services only to those ERCOT Regional Transmission Service Customers with whom AEP has an interim QSE Agreement. ERCOT Regional Transmission Service Customers may obtain comparable ancillary services from the ERCOT IO in its capacity as the supplier of last resort.

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07/30/2014  
Attachments RESERVED, Attachments RESERVED, 0.0.0 A

## RESERVED ATTACHMENTS

The following Attachments have existed in earlier versions of this Tariff and are no longer applicable.

**ATTACHMENT A**

**ATTACHMENT B**

**ATTACHMENT C**

**ATTACHMENT D**

**ATTACHMENT E-1**

**ATTACHMENT E-2**

**ATTACHMENT F**

**ATTACHMENT G**

**ATTACHMENT H**

**ATTACHMENT I**

**ATTACHMENT M**

**ATTACHMENT O**

**ATTACHMENT P**

**ATTACHMENT Q**

**ATTACHMENT R**

**ATTACHMENT S**

Appalachian Power Company as of 4/9/2018

Electric TCS and MBR

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Effective Date: 06/20/2017

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FERC Order: Delegated Letter Order

Order Date:

08/23/2017

Attachment J, J Form of Service Agreement for ERCOT Regional Transmission, 3.0.0 A

## **ATTACHMENT J Form of Service Agreement for ERCOT Regional Transmission Service**

This Service Agreement ("Agreement") is entered into this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, by and between \_\_\_\_\_ ("ERCOT Regional Transmission Service Customer") and American Electric Power Service Corporation, the Designated Agent for AEP Texas Inc. (collectively "Transmission Provider"). ERCOT Regional Transmission Service Customer and Transmission Provider are referred to herein as Parties.

WHEREAS, Transmission Provider has determined that ERCOT Regional Transmission Service Customer has made a valid request for ERCOT Regional Transmission Service in accordance with Transmission Provider's Open Access Tariff ("Tariff") filed with the Federal Energy Regulatory Commission ("Commission");

WHEREAS, ERCOT Regional Transmission Service Customer has represented that it is an Eligible Customer eligible for service under this Tariff; and

WHEREAS, the Parties intend that capitalized terms used herein shall have the same meaning as in the Tariff;

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

**Article 1.0 ERCOT Regional Transmission Service**

1.1 Transmission Provider agrees during the term of this Agreement, as it may be amended from time to time, to provide ERCOT Regional Transmission Service in accordance with this Tariff to allow the ERCOT Regional Transmission Service Customer to use the AEP Texas Transmission System for the delivery of the output of resources



located inside and outside of ERCOT to serve loads inside or outside of ERCOT.

1.2 The terms and conditions of such ERCOT Regional Transmission Service shall be governed by the Tariff, as in effect at the time this Agreement is executed by ERCOT Regional Transmission Service Customer, or as the Tariff is thereafter amended. The Tariff as it currently exists, or as it is hereafter amended, is incorporated in this Agreement by reference. In the case of any conflict between this Agreement and the Tariff, the Tariff shall control.

1.3 The load served by the ERCOT Regional Transmission Service Customer is located in (check one):

- The ERCOT Control Area.
- The Control Area operated by \_\_\_\_\_.
- Variable (ERCOT Regional Transmission Service Customer is a power marketer).

1.4 Transmission Service shall not begin until the ERCOT Regional Transmission Service Customer has entered into all necessary Interconnection Agreements with the Transmission Providers as required by the Tariff.

1.5 New interconnection points shall be established pursuant to this Tariff and set forth in a separate interconnection agreement to be negotiated by the Parties. Any charges for incremental facilities associated with such new interconnection points will be set forth in an amendment to this Agreement.

## **Article 2.0 Technical and Engineering Arrangements**

2.1 The technical and engineering arrangements required for service pursuant to this Tariff shall be specified in Interconnection Agreement(s) between the Parties.

## **Article 3.0 Rates and Charges**

3.1 ERCOT Regional Transmission Service Customer shall pay Transmission Provider monthly the rates and charges applicable to ERCOT Regional Transmission Service Customer receiving ERCOT Regional Transmission Service from Transmission Provider, as specified and determined pursuant to the Tariff and this Agreement.

3.2 The demand charge, if applicable, shall be determined pursuant to Section 39 of the Tariff.

3.3 Any congestion management charges, if applicable, shall be determined pursuant to the ERCOT Protocols

3.4 The charge for losses, if applicable, shall be determined in accordance with the ERCOT Protocols.

3.5 Direct Assignment Facilities charges shall be as follows:

3.6 Local distribution facilities charges shall be as follows:

3.7. The ERCOT Regional Transmission Service Customer also agrees that there shall be added to any amount calculated pursuant to the Tariff an amount in dollars sufficient to reimburse the Transmission Provider for any amounts paid or payable by the

Transmission Provider as sales, excise or similar taxes (other than taxes based upon or measured by net income) in respect of the total amount payable to the Transmission Provider pursuant to the Tariff, in order to allow the Transmission Provider, after provision for such taxes, to realize the net amount payable to them under the Tariff.

#### **Article 4.0 Effective Date and Term of Agreement**

4.1 This Agreement shall become effective and shall become a binding obligation of the Parties on the date on which the last of the following events shall have occurred (effective date):

(a) Transmission Provider and ERCOT Regional Transmission Service Customer shall have caused this Agreement and the necessary Interconnection Agreements to be executed by their respective duly authorized representatives and each shall have furnished to the other satisfactory evidence thereof, or the ERCOT Regional Transmission Service Customer shall have requested the Transmission Provider to file with the Commission an unexecuted Service Agreement and Interconnection Agreement; and

(b) This Agreement and any such Interconnection Agreement, either executed or unexecuted, shall have been accepted for filing and made effective by order of the Commission under the Federal Power Act, in which case the effective date of this Agreement and the Interconnection Agreement shall be as specified in the Commission's order. However, if the Commission or any reviewing court, in such order or in any separate order, suspends this Agreement

or any part thereof or the Interconnection Agreement or any part thereof, institutes an investigation or proceeding under the provisions of the Federal Power Act with respect to the justness and reasonableness of the provisions of this Agreement or any other agreement referred to or contemplated by this Agreement, or imposes any conditions, limitations or qualifications under any of the provisions of the Federal Power Act which individually or in the aggregate are determined by Transmission Provider or the ERCOT Regional Transmission Service Customer to be adverse to it, then Transmission Provider and ERCOT Regional Transmission Service Customer shall promptly renegotiate the terms of this Agreement and the Interconnection Agreement in light of such Commission or court action.

Each Party will use its best efforts to take or cause to be taken all action requisite to the end that this Agreement and the Interconnection Agreement shall become effective as provided herein at the earliest practicable date.

4.2 Transmission Provider shall file this Agreement with the Commission. The Parties agree to request that the Commission establish an effective date of \_\_\_\_\_.

4.3 This Agreement shall terminate on \_\_\_\_\_.

#### **Article 5.0 Notice**

5.1 Any notice given pursuant to this Agreement shall be in writing delivered by mail postage prepaid, prepaid overnight courier or facsimile transmission to the following:

**If to Transmission Provider:**

American Electric Power Service Corporation  
Attn: Director, System Interconnections  
212 East Sixth St.  
Tulsa, OK 74119

**If to ERCOT Regional Transmission Service Customer:**

\_\_\_\_\_  
Attn: \_\_\_\_\_

**U.S. Mail:** \_\_\_\_\_  
\_\_\_\_\_

**Overnight:** \_\_\_\_\_  
\_\_\_\_\_

(\_\_\_) \_\_\_ - \_\_\_ (phone)  
(\_\_\_) \_\_\_ - \_\_\_ (fax)

5.2 The above names, address and facsimile numbers for Transmission Provider or ERCOT Regional Transmission Service Customer may be changed at any time by written notice to the other Party.

**Article 6.0 Use of Direct Assignment Facilities**

6.1 ERCOT Regional Transmission Service Customer shall have use of Direct Assignment Facilities pursuant to this Tariff and as listed under Exhibit A-1 to this Agreement.

**Article 7.0 Use of Local Distribution Facilities**

7.1 ERCOT Regional Transmission Service Customer shall have use of Transmission Provider's local distribution facilities pursuant to this Tariff and as listed under Exhibit A-3 to this Agreement. The charge for the use made of such facilities will be \$\_\_\_\_\_.

IN WITNESS WHEREOF, each of the Parties has caused this ERCOT Regional Transmission Service Agreement to be duly executed by the authorized person in the places provided below.

**ERCOT Regional Transmission Service Customer**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

**Transmission Provider**

By: \_\_\_\_\_

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

EXHIBIT A-1

DATED \_\_\_\_\_

Direct Assignment Facilities

EXHIBIT A-2

DATED \_\_\_\_\_

Local Distribution Facilities

Appalachian Power Company as of 4/9/2018  
Electric TCS and MBR  
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12/18/2017  
Attachment K, K Annual Trans Revenue Requirement for ERCOT Regional Trans, 26.0.0 A

## **ATTACHMENT K**

### **Annual Transmission Revenue Requirement for ERCOT Regional Transmission Service**

The charges in this Attachment K, for ERCOT Regional Transmission Service provided under Part IV of the Tariff, are made subject to final determination by the Public Utility Commission of Texas (“PUCT”) and acceptance thereafter by the Commission (“Final Rates”). Upon issuance of a final decision by the PUCT in Docket No. 47659, any amounts collected in excess of those resulting from the Final Rates will be refunded, together with interest calculated in accordance with the Commission’s regulations at 18 C.F.R. § 35.19a(2)(iii). Until the Final Rates are accepted by the Commission, charges for ERCOT Regional Transmission Service hereunder shall be determined as follows:

#### ***A. For Service to Load Within ERCOT***

Charges for ERCOT Regional Transmission Service are to be determined by dividing the annual facilities charge by 12, or by other means as mutually agreed upon by the Transmission Provider and the ERCOT Regional Transmission Service Customer and specified in the Service Agreement. Under no circumstances shall the sum of the monthly charges due in any calendar year be more or less than the annual facilities charge due under this Tariff.

The annual facilities charges are the sum of: (1) the product of the annual access rate for AEP Texas Central Division (set forth below) multiplied by the ERCOT Regional Transmission Service Customer's demand at the time of the most recent ERCOT system coincident peak demand, as determined by the PUCT pursuant to Chapter 25; and (2) the product of the annual access rate for AEP Texas North Division (set forth below) multiplied by the ERCOT Regional



Transmission Service Customer's demand at the time of the most recent ERCOT system coincident peak demand, as determined by the PUCT pursuant to Chapter 25.

The annual access rate for AEP Texas Central Division is \$3.649054/kW.

The annual access rate for AEP Texas North Division is \$1.432588/kW.

***B. For Service To Export Electric Power From ERCOT***

ERCOT Regional Transmission Service charges for exports of electric power from ERCOT to the boundaries of ERCOT are to be based on the kilowatts that are actually exported, the duration of the transaction and the rates set forth below. The monthly rate for service in the on-peak season (June through September) will be one-fourth the Transmission Provider's annual access rate. The monthly rate for service in the off-peak season will be one-twelfth the Transmission Provider's annual access rate. The weekly, daily and hourly rates for service in the on-peak season will be the annual access rate divided by the number of weeks, days and hours respectively in the on-peak season. The weekly, daily and hourly rates for service in the off-peak season will be the annual access rate divided by the number of weeks, days and hours respectively in the year. The AEP Texas charges for any transaction shall not exceed the product of its Central Division and North Division annual access rates times the highest amount of kilowatts actually exported.

	<u><b>AEP Texas Central</b></u>	<u><b>AEP Texas North</b></u>
	<u>Division</u>	<u>Division</u>
Annual rate per kW	\$3.649054	\$1.432588
Monthly on-peak rate per kW	\$0.912264	\$0.358147
Monthly off-peak rate per kW	\$0.304088	\$0.119382
Weekly on-peak rate per kW	\$0.209372	\$0.082198
Weekly off-peak rate per kW	\$0.070174	\$0.027550

Daily on-peak rate per kW	\$0.029910	\$0.011743
Daily off-peak rate per kW	\$0.009997	\$0.003925
Hourly on-peak rate per kW	\$0.001246	\$0.000489
Hourly off-peak rate per kW	\$0.000417	\$0.000164

Appalachian Power Company as of 4/9/2018  
 Electric TCS and MBR

Open Access Transmission Tariff

Effective Date: 06/20/2017

Status:

Effective

FERC Docket: ER17-01500-000 696

FERC Order: Delegated Letter Order

Order Date:

08/23/2017

Attachment L, L Index of ERCOT Regional Transmission Service Customers, 14.0.0 A

## ATTACHMENT L

### Index of ERCOT Regional Transmission Service Customers

AEP Energy Partners, LP  
 AEP Texas Inc.  
 American Electric Power Service Corporation  
 Amoco Energy Trading Corporation  
 Aquila Power Corporation, Inc. (nka KCP&L Greater Missouri Operations)  
 Avista Energy, Inc.  
 Bandera Electric Cooperative, Inc.  
 Bartlett Electric Cooperative, Inc.  
 Bear Energy LP (nka J. P. Morgan Ventures Energy Corporation)  
 Belfalls Electric Cooperative, Inc.  
 Big Country Electric Cooperative, Inc.  
 Bluebonnet Electric Cooperative, Inc.  
 BP Energy  
 Brazos Electric Power Cooperative, Inc.  
 Brownsville Public Utilities Board  
 Cargill-Alliant, LLC  
 Central Texas Electric Cooperative, Inc.  
 Cherokee County Electric Cooperative, Inc.  
 Cincinnati Gas & Electric Co./PSI Energy, Inc.  
 City of Austin Electric Department  
 City of Bastrop, Texas  
 City of Bellville, Texas  
 City of Boerne, Texas  
 City of Bowie, Texas  
 City of Brady, Texas  
 City of Brenham, Texas  
 City of Bridgeport, Texas  
 Bryan Texas Utilities

City of Burnet, Texas  
City of College Station, Texas  
City of Cuero, Texas  
City of Denton, Texas Municipal Utilities  
City of Flatonia, Texas  
City of Fredericksburg, Texas  
City of Garland, Texas  
Georgetown Utilities  
City of Giddings, Texas  
City of Goldthwaite, Texas  
City of Gonzales, Texas  
Granbury Municipal Utility  
City of Hallettsville, Texas  
City of Hearne, Texas  
City of Hempstead, Texas  
KerrvillePublic Utility Board  
City of Lampasas, Texas  
City of Lexington, Texas  
City of Llano, Texas  
City of Lockhart, Texas  
City of Luling, Texas  
City of Mason, Texas  
City of Moulton, Texas  
New Braunfels Utilities  
City of Robstown, Texas  
San Marcos Electric Utility  
City of San Saba, Texas  
City of Sanger, Texas  
City of Schulenburg, Texas  
City of Sequin, Texas  
City of Seymour, Texas  
City of Shiner, Texas  
City of Smithville, Texas  
City of Waelder, Texas  
City of Weatherford, Texas  
City of Weimer, Texas  
City of Whitesboro, Texas  
City of Yoakum, Texas  
City Public Service Board of San Antonio, Texas (nka CPS Energy)  
Coleman County Electric Cooperative, Inc.  
Comanche County Electric Cooperative, Inc.  
Columbia Energy Power Marketing Corporation  
Concho Valley Electric Cooperative, Inc.  
Constellation Power Source  
Cooke County Electric Cooperative, Inc.  
Coral Power, LLC (nka Shell Energy North America)  
Deep East Texas Electric Cooperative, Inc.  
DeWitt Electric Cooperative, Inc.

Duke Energy  
Dynergy Power Services LLC  
DuPont Power Marketing, Inc.  
EDF Trading North America, LLC  
El Paso Merchant Energy, LP  
Electric Clearinghouse, Inc.  
ETC Endure Energy, LLC  
Energy Transfer  
Engage Energy US, L.P.  
Enron Power Marketing, Inc.  
Entergy Services, Inc.  
e prime, inc.  
Exelon Power Team  
Fannin County Electric Cooperative, Inc.  
Farmers Electric Cooperative, Inc.  
Fayette Electric Cooperative, Inc.  
Florida Power Corporation  
Fort Belknap Electric Cooperative, Inc.  
Fortis Energy Marketing and Trading (nka BNP Paribas Energy Trading GP)  
FPL Energy Power Marketing, Inc. (nka NextEra)  
Golden Spread Electric Cooperative, Inc.  
Grayson-Collin Electric Cooperative, Inc.  
Greenville Electric Utilities  
Gregory Power Partners, LP  
Guadalupe Power Partners, LP  
Guadalupe Valley Electric Cooperative, Inc.  
Hamilton County Electric Cooperative, Inc.  
Hilco Electric Cooperative, Inc.  
Houston County Electric Cooperative, Inc.  
Houston Lighting and Power Company (nka CenterPoint Energy)  
J-A-C Electric Cooperative, Inc.  
Jackson Electric Cooperative, Inc.  
Jasper-Newton Electric Cooperative, Inc.  
Kansas City Power & Light Company  
Kansas Energy LLC (nka Trademark Merchant Energy, LLC)  
Karnes Electric Cooperative, Inc.  
Koch Power Services, Inc.  
LaGrange Utilities  
Lamar County Electric Cooperative  
Lighthouse Electric Cooperative, Inc.  
Lower Colorado River Authority  
Lyntegar Electric Cooperative, Inc.  
Macquarie Energy, LLC  
McLennan County Electric Cooperative, Inc.  
Merchant Energy Group of the Americas, Inc.  
Merrill Lynch Global Commodities  
Mid-South Electric Cooperative  
Minnesota Power & Light Company

Morgan Stanley Capital Group, Inc.  
Navarro County Electric Cooperative, Inc.  
Navasota Valley Electric Cooperative, Inc.  
NRG Power Marketing  
Nueces Electric Cooperative, Inc.  
OGE Energy Corp  
Optim Energy Marketing, LLC  
PanEnergy Trading and Market Services, L.L.C.  
PECO Energy Company  
Pedernales Electric Cooperative, Inc.  
Questar Energy Trading Company  
Rainbow Energy Marketing Corporation  
Rayburn Electric Cooperative, Inc.  
Rio Grande Electric Cooperative, Inc.  
Rusk County Electric Cooperative, Inc.  
Sam Houston Electric Cooperative, Inc.  
San Bernard Electric Cooperative, Inc.  
San Miguel Electric Cooperative, Inc.  
San Patricio Electric Cooperative, Inc.  
Sempra Energy  
Sharyland Utilities, L.P.  
Sonat Power Marketing  
South Plains Electric Cooperative, Inc.  
South Texas Electric Cooperative, Inc.  
Southwest Texas Electric Cooperative, Inc.  
Southwestern Public Service Company  
Suez Energy Marketing NA, Inc.  
Taylor Electric Cooperative, Inc.  
Tenaska  
Texas Municipal Power Agency  
Texas Utilities Electric Company (nka TXU Energy)  
Texas-New Mexico Power Company  
Tex-La Electric Cooperative of Texas, Inc.  
TexMex Energy, LLC  
Tri-County Electric Cooperative, Inc.  
Trinity Valley Electric Cooperative, Inc.  
United Cooperative Services  
UtiliCorp United  
Valero Power Services Company  
Victoria Electric Cooperative, Inc.  
Vitol Gas & Electric, L.L.C.  
VTEC Energy, Inc.  
Western Farmers Electric Cooperative, Inc.  
Western Resources  
Wharton County Electric Cooperative, Inc.  
Williams Energy Services Company  
Wise Electric Cooperative, Inc.

Appalachian Power Company as of 4/9/2018  
Electric TCS and MBR

Open Access Transmission Tariff

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FERC Order: Delegated Letter Order

Order Date:

07/30/2014

Attachment N, N Creditworthiness Procedures, 2.0.0 A

## **ATTACHMENT N Creditworthiness Procedures**

I. For the purpose of determining the ability of the Transmission Customer to meet its obligations related to service hereunder, the Transmission Provider may require reasonable credit review procedures, which may include but shall not be limited to, verification that the Transmission Customer is not operating under any state or federal bankruptcy laws, is not subject to the uncertainty of pending liquidation or regulatory proceedings in state or federal courts, and no significant collection lawsuits or judgments are outstanding that would seriously affect the Transmission Customer's ability, in the Transmission Provider's determination, to remain solvent. As part of this process, the Transmission Customer may be required to furnish the Transmission Provider with the Transmission Customer's financial reports and/or its reports to shareholders. Creditworthiness requirements for retail electric providers in ERCOT will be governed by Chapter 25 under certification for retail electric providers. Specifically, the Transmission Customer will be considered creditworthy upon satisfying one of the following conditions:

(a) At the time it enters into a transaction and throughout the term thereof, the Transmission Customer provides the Transmission Provider evidence that its long-term unsecured debt securities are rated BBB or better by Standard & Poor's Corporation, or Baa2 or

better by Moody's Investor Service, or that its common stock is rated B+ or better by Standard and Poor's Corporation, it being the Transmission Customer's obligation to notify the Transmission Provider of any adverse changes in such ratings.

(b) The Transmission Customer either prepays for service or provides an unconditional letter of credit for an amount equal to or greater than the total charges for the term of the transaction. Any letter of credit provided to the Transmission Provider must be issued by a commercial bank or financial institution located in the United States or Canada whose long-term unsecured debt securities are rated A or better by Standard & Poor's Corporation or A2 or better by Moody's Investor Service, Inc., or comparable rating by another rating service acceptable to the Transmission Provider in its sole discretion.

(c) The Transmission Customer has, in the Transmission Provider's sole discretion, a satisfactory long-term payment history with any of the AEP Operating Companies.

(d) The Transmission Provider receives a written guarantee from the Transmission Customer's parent company (if applicable) that the parent will be responsible unconditionally for all financial obligations associated with the transaction, and the Transmission Customer's parent company qualifies as creditworthy pursuant to one or more of the provisions of this section.

(e) The Transmission Customer is a borrower from the Rural Utilities Service ("RUS") and has a Times Interest Earned Ratio ("TIER") of 1.05 or better and a Debt Service Coverage Ratio ("DSC") of 1.00 or better in the most recent calendar year, or an average TIER of 1.05 or better and average DSC of 1.00 or better achieved in the two best years out of the three most

recent calendar years. This paragraph (e) shall apply to borrowers from the RUS that take service under Part IV.

II. Procedures for Notification of Changes in Collateral Requirements - In the event the Transmission Provider determines that there has been a change in the transmission customer's creditworthiness, the Transmission Provider will provide such customer thirty (30) days notice to provide any additional requirement, collateral, or security.

III. Upon request, the Transmission Customer will be provided a written explanation for any change in credit levels or collateral requirements. The Transmission Customer may contest determinations of credit levels or collateral requirements or post additional collateral, including any non-creditworthy determination, provided that such contest is provided in writing to the Transmission Provider within five (5) business days of such credit level or collateral requirement determination.

Appalachian Power Company as of 4/9/2018  
Electric TCS and MBR

Open Access Transmission Tariff

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07/30/2014

Attachment T, T Interconnection and Local Delivery Service Agreement, 3.0.0

A

## ATTACHMENT T Interconnection and Local Delivery Service Agreement

**This Agreement** is entered into this \_\_\_\_ day of \_\_\_\_\_ 20\_\_, by and between \_\_\_\_\_ ("\_\_\_\_\_" or "Customer"), and American Electric Power Service Corporation, as Designated Agent for the AEP Operating Companies<sup>1</sup> ("AEP"), being sometimes



herein referred to collectively as the "Parties" or singularly as a "Party". In consideration of the mutual covenants and agreements herein, it is agreed as follows:

[Note 1: Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company, and Wheeling Power Company, all of which are now doing business as AEP]

WITNESSETH:

WHEREAS, the AEP companies are wholly owned subsidiaries of American Electric Power Company, Inc., owning and operating, inter alia, electric facilities for, and engaged in, the generation, transmission, distribution and sale of electric power and energy;

WHEREAS, \_\_\_\_\_ is a \_\_\_\_\_ corporation, \_\_\_\_\_  
\_\_\_\_\_ ; and

WHEREAS, PJM Interconnection, L.L.C. ("PJM"), is a Regional Transmission Organization ("RTO"), offering transmission service to eligible customers, and having functional control over the AEP East Zone transmission network upon integration of AEP's East Zone into PJM ("Transmission Provider"); and

WHEREAS, the Parties wish to establish the terms and conditions of the local delivery services, as defined under this Interconnection and Local Delivery Service Agreement ("ILDSA"), that AEP will provide to Customer in coordination with, but separate from, the transmission service that

will be provided by the PJM RTO;

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

### ***Article 1 Applicable Tariffs***

#### **1.1 Applicability of Tariffs:**

During the term of this Agreement, as it may be amended from time to time, AEP agrees to provide Interconnection and Local Delivery Services for the Customer, and the Customer agrees to pay for such services the charges identified in Attachment 1 hereto and such other charges as shall be applicable hereunder, in accordance with this Agreement. In addition, the applicable provisions of the Open Access Transmission Tariff of the AEP System ("AEP Tariff"), and, as to certain provisions referenced herein, the Open Access Transmission Tariff of the PJM RTO ("PJM Tariff"), as each tariff shall at any time during the term of this Agreement be on-file and accepted by the Federal Energy Regulatory Commission ("Commission"), including any applicable Schedules and Attachments appended to such tariffs. Interconnection and Local Delivery Services means services described herein which are subject to the jurisdiction of the Commission but not provided by the PJM RTO under the PJM Tariff. AEP shall not provide any services or make any charges hereunder that are provided or charged by the PJM RTO under the PJM Tariff.

## **1.2 Governance over Conflicts:**

The terms and conditions of such Interconnection and Local Delivery Services shall be governed by this Agreement and the AEP Tariff, as it exists at the time of this Agreement, or as hereafter amended. The AEP Tariff, as it currently exists or as hereafter amended, is incorporated in this Agreement by reference. In the case of any conflict between this Agreement and the AEP Tariff or PJM Tariff, the AEP Tariff or PJM Tariff shall control, except that the PJM Tariff shall control if the AEP Tariff and the PJM Tariff are in conflict.

## ***Article 2 Delivery Points***

### **2.1 Existing Delivery Points:**

Unless the Parties shall subsequently otherwise agree, the existing facilities connecting the Customer's members power delivery facilities to the AEP power delivery facilities ("Delivery Points") listed in Attachment 1, and illustrated in corresponding one line diagram(s) contained in Attachment 2, shall be continued in service. The Customer and AEP 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. AEP and the Customer acting through its members, if applicable, to the extent practicable, shall each maintain 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 Good Utility Practice, in order that said facilities will operate in a reliable and satisfactory manner, and without material reduction in their intended capacity or purpose.

If the function of any such facility is impaired or the capacity of any point of delivery is reduced or such synchronous operation at any point of delivery becomes interrupted, either manually or automatically, as a result of force majeure or maintenance coordinated by the Parties, AEP and the Customer acting through its members, if applicable, shall cooperate to remove the cause of such impairment, interruption or reduction, so as to restore normal operating conditions expeditiously, it being understood that this or any other provision of this Agreement, notwithstanding, AEP shall retain the sole responsibility and authority for operating decisions as they relate to the integrity and security of the AEP system.

### **2.1.1 Interruption or Reduction of Service at the Delivery Points**

The continuity of service at any Delivery Point provided under this Agreement may be interrupted or reduced, (a) by operation of automatic equipment installed for power system protection, (b) after consultation with the affected party, at any time that a party deems it desirable for installation, maintenance, inspection, repairs, or replacement of equipment, (c) at any time that in the judgment of the interrupting party such action is necessary to protect personnel or the public, preserve the integrity of, or to prevent or limit any instability on, or to avoid a burden on, their respective system or prevent damage to equipment.

### **2.2 Changes in Delivery Points and Local Delivery Facilities**

When it becomes necessary or desirable to make changes in the Delivery Point facilities, to upgrade, retire, replace or establish a new Delivery Point, including metering or other facilities at such location, the provisions of this Section shall apply.

## 2.2.1 Study Requests for Changes in Delivery Facilities

The Customer shall make requests for changes in local delivery facilities, including facility upgrades, retirements and replacements, or the establishment of any new Delivery Point, in writing to AEP, delivered by post or electronic mail (email) to Director, Transmission and Interconnection Services, and Manager, East Area Transmission Planning. AEP shall likewise respond to such requests in writing, by post or email. A request for a new Delivery Point or modification of an existing Delivery Point should include, at a minimum, the following information:

- a) Nature of the change such as: modifications to an existing Delivery Point, new Delivery Point, increased capacity, and retirement, etc.;
- b) Location of the Delivery Point;
- c) Voltage class of the Delivery Point;
- d) Specific AEP transmission facility that the Delivery Point is to be connected to;
- e) Non-binding good faith estimate of load to be served by the Delivery Point for the first 5 years;
- f) Specific modifications to an existing Delivery Point, if applicable; and
- g) Desired in-service date.

## 2.2.2 System Impact Study (SIS)

Unless otherwise mutually agreed, AEP shall respond within five (5) business days of receipt of such a request and provide a System Impact Study (“SIS”) Agreement and a list of any additional information that AEP would require from the Customer to proceed with such study. The study agreement shall commit the Customer to pay AEP the actual cost to complete the study and to make an advance deposit equal to the estimated study cost or \$25,000, whichever is less. The Customer shall execute and deliver executed SIS Agreement within thirty (30) calendar days following its receipt and required deposit. Upon receipt of the executed study agreement, study data and the required deposit, AEP shall carry out the SIS. In the SIS, AEP shall assess the feasibility of modifying an existing Delivery Point or establishing the new Delivery Point using power flow and short circuit analyses and any other analyses that may be appropriate.

If the Customer fails to return an executed SIS Agreement within thirty (30) calendar days of receipt or at a later date as the Parties mutually agree, AEP shall deem the study request to be withdrawn. The Customer may withdraw its study request at any time by written notice of such withdrawal to AEP.

AEP shall issue a report to the Customer within sixty (60) calendar days of the receipt of an executed SIS Agreement, or at a later date as the Parties may mutually agree. If AEP is unable to complete such study in the allotted time, AEP shall provide an explanation to the Customer regarding the cause(s) of such delay and a revised completion date and study cost estimate.

Upon completion of the SIS, the Customer shall reimburse AEP for the unpaid cost of the SIS if the cost of the study exceeds the deposit. AEP shall refund the Customer, with interest, any portion of the deposit that exceeds the cost of the SIS. Or, at the written request of the Customer, AEP shall apply the remaining balance to the Facilities Study. The interest rate will be computed in accordance with 18 C.F.R. § 35.19a(a)(2).

### **2.2.3 Facilities Study (FS)**

Following the completion of the SIS, AEP shall provide to the Customer a Facilities Study (“FS”) Agreement. The Facilities Study Agreement shall provide that the Customer shall compensate AEP for the actual cost of the Facilities Study. The Customer shall execute the Facilities Study Agreement and deliver the executed Facilities Study Agreement to AEP within thirty (30) calendar days following its receipt, together with the required technical data and deposit in an amount equal to the estimated cost of the FS or \$25,000, whichever is less. The FS shall determine the details and estimated cost of facilities necessary for establishing the requested Delivery Point and any system additions/upgrades needed to address any problems identified in the SIS. AEP shall complete the study and issue a Facilities Study report to the Customer within ninety (90) calendar days after receipt of an executed Facilities Study Agreement, deposit and necessary data, or at a later date as the Parties may mutually agree.

If the Customer fails to return an executed FS Agreement within thirty (30) calendar days of receipt or at a later date as the Parties mutually agree, AEP shall deem the study request to be withdrawn. The Customer may withdraw its study request at any time by

written notice of such withdrawal to AEP.

The results of the Facilities Studies shall be valid for a period of one year. If the Customer delays for more than one year the continuation of the process for establishment of a new Delivery Point, the customer's request shall be deemed withdrawn and a new request and potentially new SIS and FS shall be required.

#### **2.2.4 Expedited System Study**

If AEP determines that minimum efforts are needed to carry out the requested Delivery Point modifications/ additions, AEP shall, upon request by the Customer, offer a single agreement covering the System Impact Study and Facilities Study, the "System Study Agreement." The Study Agreement shall commit the Customer to pay AEP the actual cost to complete the study and to make an advance deposit equal to the estimated study cost or \$25,000, whichever is less.

If the Customer fails to return an executed System Study Agreement within thirty (30) calendar days of receipt along with the required deposit, or at a later date as the Parties mutually agree, AEP shall deem the study request to be withdrawn. The Customer may withdraw its study request at any time by written notice of such withdrawal to AEP. AEP shall complete the study and issue an Expedited System Study report to the Customer within sixty (60) calendar days after receipt of an executed Expedited Study Agreement, deposit and necessary data, or at a later date as the Parties may mutually agree.



### **2.2.5 Modifications to Study Request**

During the course of a System Impact Study, Facilities Study, or System Study, either the Customer or AEP may identify desirable changes in the planned facilities that may improve the costs and/or benefits (including reliability) of the planned facilities. To the extent the revised plan, and study schedule, are acceptable to both AEP and the Customer, such acceptance not to be unreasonably withheld; AEP shall proceed with any necessary restudy. Any additional studies resulting from such modification shall be done at the Customer's cost.

### **2.3 Engineering, Design and Construction of New Facilities**

If pursuant to a request by the Customer, AEP agrees to provide engineering, design and construction of facilities described in the final study report, a facilities agreement ("Facilities Agreement") shall be signed by the Customer and AEP specifying the terms and conditions. Each such Facilities Agreement will be incorporated in this agreement, initially as an attachment hereto, and after project completion through inclusion in Attachment 1 and Attachment 2. Following the signing of the Facilities Agreement, the receipt of any outstanding technical information, deposit or instrument or showing that Customer meets the financial creditworthiness requirements of the AEP Tariff, Section 11 ("Creditworthiness"), AEP will proceed with the engineering, design and procurement activities to construct, reconfigure, upgrade, replace or retire such local delivery or other facilities. All Facilities Agreements for Delivery Points existing as of the date of this Agreement and described in Attachment 1 shall remain in full force and effect in accordance with their terms.

## **2.4 Cost Recovery Protection**

Pursuant to this Agreement, AEP and Customer will cooperate regarding the planning, provision and utilization of transmission and local delivery facilities needed to reliably deliver power and energy to Customer's loads connected to AEP's facilities. As such, AEP may be required to construct or otherwise expand transmission and local delivery facilities, predicated upon Customer's planned use of such facilities, including the Customer's planned use of external and internal generating capacity. If the Customer alters its use of the transmission and/or local delivery service facilities, through the transfer of load to the system of another service provider, AEP shall be entitled to compensation for "Stranded Costs" to the extent such load transfer causes AEP's revenues to be reduced. Any such claim for Stranded Costs by AEP shall be net of the present value of any incremental transmission revenue that AEP will receive by providing transmission or local delivery service to other customers using the transmission or local delivery capacity freed up by the Customer's load change. To the extent practicable, AEP will make efforts to find customers to take the available transmission service to minimize the stranded cost recovery on a case-by-case basis. AEP will make a Section 205 filing under part 35 of Commission's regulations to seek Commission's authorization for any Stranded Cost recovery, identifying the facilities and voltages and recovery support for the cost and duration of the recovery period.

## **2.5 In-Line Facilities**

AEP shall have the sole right to operate, maintain, and at its option, to own any facilities

that are required to be installed in-line with AEP's facilities and that may affect the continuity and reliability of AEP facilities that provide or protect service to other customers.

## **2.6 Connection Guide**

The requirements for connection of non-generating facilities to the AEP transmission system are contained in the AEP document "Requirements for Connection of Non-Generation Facilities to the AEP East Transmission System", referred to herein as the "Connection Guide". A copy of this document can be obtained from AEP Transmission Planning.

## ***Article 3 Local Delivery Services***

### **3.1 Measurement of Load At Each Delivery Point**

The Customer's load, kW, kWh and kVAR at each Delivery Point shall be measured at least on an hourly integrated basis, by suitable revenue grade metering equipment. The measurements taken and required metering equipment shall be as needed for all settlement purposes under this Agreement, the AEP Tariff and the PJM Tariff and in accordance with the AEP standards and practices as contained in the Connection Guide. 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 required by AEP or PJM in suitable electronic format. If AEP, \_\_\_\_\_, or PJM requires real-time load or facility status information from any Delivery Point, the other Party 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 AEP and \_\_\_\_\_. AEP shall provide to \_\_\_\_\_, on a monthly basis by the fifth business day after the end of the prior month, the hourly kW, kWh and kVAr load data. Such data, along with the master MV90 file format and 15-minute interval data for kWh and kVAhr for each Delivery Point, shall be supplied in MV90 translatable format and by e-mail. \_\_\_\_\_ shall compensate AEP for metering and meter data processing services as specified in Attachment 1 of this Agreement.

Customer will be permitted to remotely interrogate any delivery point meter for the purpose of obtaining load data and, if available, power quality data through read-only access via the AEP delivery point meter modem and telephone circuit or real time Supervisory Control and Data Acquisition ("SCADA") system equipment. At the request of Customer, AEP will cooperate on the installation of "smart" technology metering in place of the standard metering equipment at a delivery point, provided; however, that AEP shall not be obligated to install, operate or maintain any meter or related equipment that is not approved for use on the AEP System. AEP will also cooperate with Customer on the installation of any additional telephone circuit(s) and/or satellite communications devices with associated data circuits or other mode(s) of communications and allow for the connection of such meter communications circuit(s) to the Customer's real time SCADA system equipment, provided that such equipment connections and communications can be accomplished in a manner that does not interfere with the operation of AEP equipment or fulfillment of any statutory or contractual obligation. If the potential for such interference exists, AEP will work with the Customer, through reasonable measures, to resolve such metering and/or communications issues. As with standard

metering, Customer will bear all costs associated with smart technology metering, additional communication, and/or SCADA equipment it requests.

### **3.2 Compensation for Local Delivery Services**

The Customer shall, to the extent consistent with Federal Energy Regulatory Commission policy, reimburse AEP its costs associated with new and existing facilities, not otherwise recovered through the transmission charges under the PJM Tariff, either through monthly charges agreed to by the Parties which charges shall be specified in Attachment 1 or, at AEP's option, pursuant to the Formula Rate for Facility Construction, Operation and Maintenance contained in Attachment 4 to this Agreement. The Parties shall mutually agree upon the provision and cost of providing such distribution facilities as may be necessary to maintain reliable service to the Delivery Points.

### **3.3 Local Reactive Power Services**

Load power factor charges will be assessed to the Customer pursuant to the following Delivery Point power factor clause based on the hourly kW and kVAr demand metered at the Delivery Points as follows:

The maximum hourly reactive power (kVAr) demand, both leading and lagging will be measured each month at each Delivery Point. When multiple Delivery Points are operated as closed loops, the real and reactive power measurements will be combined for the purpose of this provision. Customer will incur no charges for power factor if the maximum leading and

lagging kVAr demand at each Delivery Point is managed, so as not to exceed 20% of the real power (kW) demand in the same hourly intervals. Charges will be assessed for leading and/or lagging kVAr demand at each Delivery Point if the maximum hourly value of such demand exceeds 20% of the kW demand in the same interval. The charges will be \$0.30/kVAr for all leading and/or lagging kVAr demand in excess of 20% of the corresponding kW demand, provided; however, that when the kVAr demand exceeds 50% of the kW demand, the charge will be \$0.50/kVAr, for all kVAr, leading and/or lagging, in excess of 20% of the corresponding kW demand.

### **3.4 Losses**

The Customer's load shall be adjusted, for settlement purposes, to include AEP East Zone transmission and distribution losses, as applicable. Presently, the FERC approved transmission loss factor for the AEP East Zone is 3.3% of energy received by AEP for transmission to the Customer's Delivery Points ( $1/(1-0.033) = 3.413\%$  of delivered energy). Distribution losses shall be assessed, where applicable, at the rates as specified in Attachment 1. 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 AEP.

### **3.5 Maintenance of Local Delivery Point Facilities**

If Pursuant to a request by Customer, AEP constructs facilities and is reimbursed by

Customer at cost, such cost will be calculated pursuant to the AEP Formula Rate for Facility, Construction, Operation, and Maintenance charges, attached hereto as Attachment 4, unless the Parties otherwise agree. When AEP provides operation and maintenance (O&M) services for any Delivery Point and/or distribution facilities owned by the Customer, or its members if applicable, such service will be made pursuant to any repair and maintenance agreement (“O&M Agreement”) that may exist between Customer and AEP, or to Attachment 3 of this Agreement.

### **3.6 Operational Access and Control**

Unless otherwise specifically agreed, AEP shall have the sole right to enter upon, test, operate and control the facilities covered by this Agreement that are owned by Customer when such facilities can directly affect the safety, reliability and/or continuity of service to other customers. The right to test, operate and control said facilities includes but is not limited to the power to direct the opening and closing of switches for construction, operation, testing, maintenance and other relevant purposes. Except in the event of an emergency, neither party will exercise operational access and control of facilities owned by the other unless permission is expressly granted to such party by the owning party.

All meters and test switches, whether provided by AEP or \_\_\_\_\_, shall be sealed and the seals shall be broken only when the meters are to be tested, adjusted 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, and/or replacement.

### **3.7 Administrative Committee**

AEP and Customer shall each appoint a member and at least one alternate to an Administrative Committee, and so notify the other party of such appointment(s) in writing. Such appointment(s) may be changed at any time by similar notice. Each member and alternate shall be a responsible person familiar with the day-to-day operations of their respective system. Generally, this would mean that the Administrative Committee representative(s) will be employees AEP and the Customer, or entities represented by the Customer; however, the representative(s) may be accompanied by other experts, appropriate to the matters to be considered.

The Administrative Committee shall represent AEP and Customer in all matters arising under this Agreement and which may be delegated to it by mutual agreement of the parties hereto.

#### **3.7.1 Principal Duties**

The principal duties of the Administrative Committee shall be as follows:

a.) To establish operating, scheduling and control procedures as needed to meet the requirements of coordinated operation, this Agreement and any requirements of the Transmission Provider;



- b.) To address issues arising out of accounting and billing procedures;
- c.) To coordinate regarding the changing service requirements of the Customer and the course of action the Parties will pursue to meet such requirements;
- d.) To coordinate regarding facility construction and maintenance as appropriate, and to the extent agreed by the Parties; and
- e.) To perform such other duties as may be specifically identified in, or required for the proper function of this Agreement.

### **3.7.2 Administrative Committee Meetings**

The Administrative Committee shall meet or otherwise conference, at least once each calendar year, or at the request of either Party upon reasonable notice, and each Party may place items on the meeting agenda. All proceedings of the Administrative Committee shall be conducted by its members taking into account the exercise of Good Utility Practice. If the Administrative Committee is unable to agree on any matter coming under its jurisdiction, that matter shall be resolved pursuant to the Dispute Resolution Procedures of the PJM Tariff, or otherwise, as mutually agreed by Customer and Company.

### ***Article 4 Customers Load Capacity and Other Obligations to the RTO***

Each Load Serving Entity ("LSE"), as that term is used by the PJM RTO, is responsible for

complying with all RTO requirements. Unless otherwise agreed, AEP shall have only such responsibilities to assist Customer in meeting its obligations to the RTO, as shall be required pursuant to the PJM Tariff and this Agreement. AEP shall cooperate with PJM and Customer (or Customer designated Scheduling Agent) to the extent necessary and appropriate to insure 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. AEP will also provide Customer the information provided to PJM annually under sections 4.1 and 4.2. Customer may also arrange to receive the information provided to PJM on a daily basis pursuant to section 4.3 and 4.4, as applicable, provided Customer and Company agree as to the terms and fees for such service.

#### **4.1 Network Service Peak Load (NSPL) Determinations**

AEP shall provide to PJM each year in December, the Network Service Peak Load (NSPL) of each LSE within the AEP pricing one in the hour of the PJM peak load (1CP) 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 by PJM 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 by PJM, AEP shall cooperate with PJM and the Customer to the extent necessary and appropriate to make available such data as is needed.

## **4.2 Peak Load Contribution (PLC)**

AEP shall provide to PJM the peak load contribution (PLC) of each LSE in the AEP 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. Each year PJM will inform AEP of the day and hour of the five highest PJM unrestricted daily peaks (5CP) for the twelve months ending October 31 of such year. AEP will then determine each LSE's contribution to the 5CP loads of the AEP control zone. This load ratio will be applied to the forecasted AEP control zone load, adjusted for weather normalization and forecasted load growth, to determine each LSE's peak load contribution. PJM will utilize this information in the development of each LSE's capacity obligation. If the basis used by PJM for PLC and relative determinations of customer load obligations is changed by PJM, AEP shall cooperate with PJM and the customer to the extent necessary and appropriate to make available such data as is needed.

## **4.3 Hourly Energy Requirements**

AEP will also provide to PJM each working day, via PJM's eSchedule system, the initial hourly energy assignment (load plus losses) for each LSE in the AEP zone. This data will generally be supplied by 5:00 PM eastern prevailing time (EPT) on Monday for the prior Friday, Saturday and Sunday and by 1:00 PM EPT Tuesday through Friday or the prior weekday. PJM will use this data to calculate each LSE's capacity obligation for each hour for the next day. Unless PJM has recognized a transfer of load obligation from or to the Customer (LSE) to or from another Customer (LSE), the capacity obligation will not change daily. Within two months

of the end of each settlement month, AEP shall validate the LSE's hourly load and submit the changes via the eSchedule system, as appropriate, for 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 capacity obligation for each hour for the next day, is changed by PJM, AEP shall cooperate with PJM and the Customer to the extent necessary and appropriate to make available such data as needed.

#### **4.4 Behind the Meter Generation**

AEP shall cooperate with PJM and parties operating generators connected behind load metering, such that PJM will receive such generator output meter information it requires for the following two categories of generators behind the meter operating within the AEP Zone:

##### **4.4.1 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.

##### **4.4.2 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.

#### **4.5 Post Settlement of PJM Inadvertent Energy Allocation**

PJM will dispatch generators for supplying inadvertent energy payback to the Eastern Interconnection and recover such costs from the PJM region-wide load. The summation of hourly inadvertent energy (total monthly) charges assigned by PJM to the AEP control zone each month will be allocated to each LSE in the AEP control zone in proportion to the LSE's NSPL or by such other method as the FERC approves. AEP will provide each customer the data necessary for the customer to verify the charges for Inadvertent Energy settlement that are passed through to the customer from the PJM invoice.

#### **4.6 LMP Node/Zone Aggregator**

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. PJM may in turn request AEP to work with the LSE to determine the appropriate configuration of the load bus aggregate. AEP 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 AEP 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 AEP 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

AEP zonal weighted average LMP price.

## ***Article 5 General***

### **5.1 Billing, Payments, and Disputes**

As a convenience, and so long as PJM offers such accommodations, monthly charges for Delivery Point power factor, distribution services, meter and related meter reading and data processing services as specified in Attachment 1 hereto will be included in the monthly transmission service invoice issued by RTO. Customer shall pay the monthly delivery charges invoiced by the RTO in accordance with PJM Tariff and with respect to such charges customer shall be subject to AEP Tariff creditworthiness provisions. If the Customer receives transmission service through an agreement with a third party that contracts with PJM, the charges for Delivery Services hereunder may be invoiced to the third party subject to PJM's accommodations and applicable provision of the PJM Tariff or to the Customer, subject to applicable provision of the AEP Tariff.

AEP shall invoice the Customer and the Customer shall reimburse AEP for its costs associated with any facility construction, operation and maintenance or, repair provided under this Agreement in accordance with the AEP Tariff, Section 7 ("Billing and Payments"). Any disputes as to such invoices shall be resolved pursuant to the provisions of the Dispute Resolution Procedures of the PJM Tariff.

### **5.2 Taxes on Contributions in Aid of Construction**

When the Customer funds the construction of AEP-owned facilities pursuant to a contribution in-aid of construction ("CIAC"), the Customer also shall reimburse AEP for the tax effect of such CIAC (a "Tax Effect Recovery Factor" or "TERF"), where such payment is considered taxable income and subject to income tax under the Internal Revenue Service (IRS) and/or a state department of revenue (State) requirements. The TERF shall be computed consistent with the methodology set forth in Ozark Gas Transmission Corp., 56 F.E.R.C. 61,349 as reflected in the following formula:  $TERF = (Current\ Tax\ Rate \times (Gross\ Income\ Amount - Present\ Value\ of\ Tax\ Depreciation)) / (1 - Current\ Tax\ Rate)$ . The Present Value Depreciation Amount shall be computed by discounting AEP's anticipated tax depreciation deductions with respect to the constructed property by AEP's current weighted average cost of capital. If, based on current law, AEP determines such contribution by the Customer shall not be taxable, AEP will not charge a TERF; however, in the event that such contribution is later determined by the IRS or state tax authority to be taxable, the Customer shall reimburse AEP, the amount of the TERF, including any interest and penalty charged to AEP by the IRS and/or state. Such reimbursement is due within thirty (30) calendar days of the date upon which AEP notifies the Customer of such determination.

At Customer's request and expense, AEP shall file with the IRS a request for a private letter ruling as to whether any CIAC paid, or to be paid, by Customer to AEP is subject to federal income taxation. Customer will prepare the initial draft of the request for a private letter ruling, and will certify under penalties of perjury that all facts represented in such request are true and accurate to the best of Customer's knowledge. AEP and Customer shall cooperate in good faith with respect to the submission of such request. AEP shall keep Customer fully

informed of the status of such request for a private letter ruling and shall execute either a privacy act waiver or a limited power of attorney, in a form acceptable to the IRS that authorizes Customer to participate in all discussions with the IRS regarding such request for a private letter ruling. AEP shall allow Customer to attend all meetings with IRS officials about the request and shall permit Customer to prepare the initial drafts of any follow-up letters in connection with the request.

If customer shall have reimbursed AEP for the TERF, upon request by Customer and at Customer's expense, AEP shall contest the taxability of such CIAC; provided, however, that AEP shall not be required to contest such taxability if AEP waives the payment by Customer of any amount that might otherwise be payable by Customer under this Agreement in respect of such determination.

### **5.3 Indemnity:**

To the extent permitted by law, each Party shall indemnify and save harmless the other Party and its directors, trustees, officers, employees, and agents from and against any loss, liability, cost, expenses, suits, actions, claims, and all other obligations arising out of injuries or death to persons or damage to property caused by or in any way attributable to the Delivery Point(s) and/or distribution facilities covered by this Agreement, except that a Party's obligation to indemnify the other Party and its directors, trustees, officers, employees, and agents shall not apply to any liabilities arising solely from the other Party's or its directors', trustees', officers', employees', or agents' negligence, recklessness or intentional misconduct or that



portion of any liabilities that arise out of the other Party's or its directors', trustees', officers', employees', or agents' contributing negligent, reckless or intentional acts or omissions.

#### **5.4 Effective Date and Term of Agreement:**

This Agreement shall become effective and shall become a binding obligation of the parties on the date on which the last of the following events shall have occurred (effective date):

(a) AEP and \_\_\_\_\_ each shall have caused this Agreement to be executed by their duly authorized representatives and each shall have furnished to the other satisfactory evidence thereof or \_ requested AEP to file an unexecuted service agreement within thirty (30) calendar days of Customer's request for such a filing.

(b) This Agreement has been accepted for filing and made effective by order of the Commission under the Federal Power Act, in which case the effective date of this Agreement shall be as specified in the said Commission order. However, if the Commission or any reviewing court, in such order or in any separate order, suspends this Agreement or any part thereof, institutes an investigation or proceeding under the provisions of the Federal Power Act with respect to the justness and reasonableness of the provisions of this Agreement or any other agreement referred to or contemplated by this Agreement, or imposes any conditions, limitations or qualifications under any of the provisions of the Federal Power Act which individually or in the aggregate are determined by AEP or \_\_\_\_\_ to be adverse to it, then AEP and \_\_\_\_\_ promptly renegotiate the terms of this Agreement in light of such

Commission or court action. Each Party shall use its best efforts to take or cause to be taken all action requisite to the end that this Agreement shall become effective as provided herein at the earliest practicable date.

(c) The initial term of this Agreement shall continue for one year after the date the Agreement becomes effective. Thereafter, this Agreement shall automatically renew for successive terms of one year each unless either Party elects to terminate the Agreement by providing written notice of termination to the other Party at least ninety (90) calendar days prior to the start of any renewal term.

### **5.5 Regulatory Authorities:**

This Agreement is made subject to the jurisdiction of any governmental authority or authorities having jurisdiction in the premises. Nothing contained in this Agreement shall be construed as affecting in any way the right of a Party, as the case may be, to unilaterally file with the Federal Energy Regulatory Commission an application for a change in rates, charges, classification, service or any rule, regulation or contract relating thereto under Section 205 or 206 of the Federal Power Act and pursuant to the Commission's Rules and Regulations promulgated thereunder.

### **5.6 Assignment:**

It is mutually understood and agreed that this Agreement contains the entire understanding between the Parties, that there are no oral, written, implied or other

understandings or agreements with respect to the work covered hereunder. This Agreement shall be binding upon and inure to the benefit of the Parties hereto, as well as their respective successors and/or assigns. However, neither Party shall assign, transfer or sublet any of the rights hereby granted without the prior written consent of the other Party.

**Article 6 Notices**

**6.1**

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

If to the AEP:                      American Electric Power Service Corporation  
Director, Transmission & Interconnection Services  
1 Riverside Plaza  
Columbus, Ohio 43215-2373

If to Customer \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**6.2**

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

**6.3**

This Agreement shall inure to the benefit of and be binding upon the successors and assigns of the Parties. This Agreement shall not be assigned by either Party without the written consent of the other, which consent shall not be unreasonable withheld.

IN WITNESS WHEREOF, each of the Parties has caused this Agreement to be duly executed.

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

American Electric Power Service Corp.

By \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## List of AEP Power Delivery Points and Associated Charges

### ***Attachment 2***

#### One-line Diagrams of Delivery Points

Note: Drawings for new and/or updates to existing Delivery Points will be part of Attachment 2 in future FERC filings.

### ***Attachment 3***

#### **Facilities, Operation, Maintenance and Repair Services**

When AEP asserts an operational or system security necessity requiring that AEP provide operation and maintenance (“O&M”) and repair services for Customer-owned equipment at any Delivery Point, the customer shall have the right to request that AEP perform such services under the provisions herein below and on the cost of service basis reflected in the Formula Rate contained in Attachment 4. When an existing O&M agreement between the Parties which also utilizes a Formula Rate expires or is terminated by mutual agreement or otherwise, unless otherwise agreed, the services provided by AEP under such agreement, if they continue, shall be brought under this Agreement.

Service pursuant to this Attachment 3 shall be based on terms and conditions described below:

1. This Operation and Maintenance and Repair Agreement shall cover the delivery and/or switching facilities currently listed on Exhibit A, attached hereto and made a part hereof,

and any other delivery and/or switching facilities that are brought hereunder in accordance with the procedure hereinafter provided.

2. Subject to the terms and conditions contained herein, AEP agrees to test, maintain and repair the facilities in Exhibit A so as to assure the satisfactory and reliable operation of said facilities, all in accordance with good industry standards and practice. AEP further agrees to perform any additional testing, maintenance, repairs and/or replacements requested from time to time by Customer.
3. AEP agrees to furnish all supervision, labor, tools conveyances and equipment necessary for carrying out the work covered for facilities described in Exhibit A and further agrees to furnish all materials required to do the work except those materials that Customer feels are in its best interests to furnish.
4. All work shall be performed during the standard 40-hour work week, but, in the event that operating or emergency conditions warrant, overtime work can be authorized either in writing or verbally (in the case of emergency work) by Customer's representative.
5. AEP will render invoices to Customer, on forms acceptable, at suitable intervals to be mutually agreed upon by the parties.
6. Customer agrees to promptly pay AEP the actual costs of any and all testing, maintenance, repairs and/or replacements performed pursuant to the terms and conditions of this Services Agreement, including the costs associated with labor,

materials, equipment, overheads, taxes and other services incurred by AEP in performing the work, when presented with satisfactory evidence of the cost of such work.

7. The facilities covered in this Agreement may be extended or otherwise modified by attaching one or more numbered supplemental Facility Requests (attached herewith as Exhibit A No.1), which show the additional facilities or changed equipment to be thereafter covered by this Contract. Such supplements shall be effective as of the date of final execution thereof and shall be attached to all executed copies of this Agreement.

### **Pro-forma Exhibit A**

#### **FACILITY REQUEST(S)**

No. \_\_\_\_\_

Date \_\_\_\_\_

Customer (Customer Name) hereby applies to AEP for delivery and switching facility(s) described below and shown in the attached drawing(s) in Attachment 2. In exchange for CUSTOMER'S promise to pay the actual cost of each facility listed below, CUSTOMER requests AEP to construct, install, operate, test, repair and/or maintain the facility(s) to be located in the following circuits of AEP's transmission system:

<u>Circuit</u>	<u>Facility(s)</u>	<u>Delivery Point</u>	<u>Location</u>	<u>Agreement Date</u>

CUSTOMER understands and agrees that said facilities are to be constructed, installed, owned, operated, tested and/or maintained in the manner and under the conditions set forth in the attached agreement, which was entered into by CUSTOMER and AEP on \_\_\_\_\_, 20\_\_.

IN WITNESS WHEREOF, each of the Parties has caused this Service and Repair Agreement to be duly executed

CUSTOMER NAME

By: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_



AMERICAN ELECTRIC POWER SERVICE CORPORATION

As Agent for the AEP Operating Companies

By: \_\_\_\_\_

Title: Director, Transmission and Interconnection Services

Date: \_\_\_\_\_

***Attachment 4***

AMERICAN ELECTRIC POWER  
FORMULA RATE FOR FACILITY CONSTRUCTION  
OPERATION AND MAINTENANCE

General

The formula rate contained in this document applies when construction, operation and/or maintenance activities are performed for non-AEP Parties, under circumstances precluding the charging of a profit margin. The American Electric Power Companies (AEP) will recover costs for such operation and maintenance activities through bills which reflect the cost AEP has incurred in six categories, namely: 1) materials, 2) labor, 3) equipment, 4) outside services, 5) engineering and administration, and 6) taxes.

AEP charges its costs for construction, operation and maintenance activities on behalf of others to special work orders which accumulate the costs to be billed. As a result of these

accounting procedures, the charges billed to non-AEP Parties are not reflected in AEP's transmission, operation, maintenance, or plant accounts.

However, the costs which AEP incurs and bills in such cases are the kinds of costs which would be assignable to the following FERC Uniform System of Accounts if they were incurred in connection with AEP's owned property:

Operation and Maintenance - Transmission Operation and Maintenance Expenses

- 560 - Operation Supervision and Engineering
- 562 - Station Expenses
- 563 - Overhead Line Expenses
- 566 - Miscellaneous Transmission Expenses
- 568 - Maintenance Supervision and Engineering
- 569 - Maintenance of Structures
- 570 - Maintenance of Station Equipment
- 571 - Maintenance of Overhead Lines

Construction - Transmission Plant Costs

- 352 - Structures and Improvements
- 353 - Station Equipment
- 397 - Communications Equipment
- 108 - Accumulated Provision for Depreciation

All Activities - Administrative, General and Other Expenses

- 920 - Administrative and General Salaries

## 408 - Taxes Other Than Income Taxes

The charges billed for maintenance in each of the previously identified six categories are discussed in order below.

### **1 Materials**

Materials charges are made in four sub-categories: 1) direct material costs (DM), which may be delivered direct from vendors to the job site (VDM) or issued from company stores (SDM), 2) purchasing expenses (PE), 3) stores expenses (SE), and 4) exempt minor materials (EM). The latter three costs are charged using material loading rates.

Direct material costs are vendor invoiced charges for items, other than exempt minor materials, which are used for Generating Company maintenance. Purchasing expenses are material overhead costs incurred in selecting and ordering materials. Stores expenses are the costs of performing the stores function. Exempt minor materials are low cost expendable materials, supplies, and hand tools used in Transmission and Distribution construction, maintenance, or operations.

Material items which are delivered direct from the vendor to the job site (VDM) are charged at cost, plus a purchasing loading rate (plr) of 1%, up to a maximum of \$150 per invoice. Materials issued from company storerooms for individual work orders (SDM) are charged at cost, plus a combined stores/purchasing loading rate (slr) and an exempt minor materials loading rate (mlr).

Projected annual stores and exempt minor materials costs are divided by projected annual costs of stores issued materials (SDM + EM) to determine projected stores and exempt minor materials loading rates. The rates are reviewed monthly and adjusted as required in order to clear current year stores expense and exempt minor materials costs to the accounts charged with the materials issued.

In symbolic format, the charges for materials are calculated as follows:

$$M = DM + [VDM \times (\text{plr}), \text{ up to } \$150/\text{bill}] + SDM \times (1 + (\text{mlr})) \times (\text{slr})$$

## **2 Labor**

Labor is charged to Generating Company maintenance work orders in three parts - direct labor (DL), fringe labor costs (FL), and miscellaneous out-of-pocket employee expenses (ME). Direct labor charges reflect the actual work hours (whr) and basic hourly rates of pay (hrp) for the personnel that are directly involved; i.e.,  $DL = (\text{whr}) \times (\text{hrp})$ . Fringe labor costs for vacation, holiday, sick leave, and other paid time away, plus payroll taxes, insurance, workers' compensation, pension, and savings plan expenses are recovered through labor loading rates (llr) which are developed by dividing fringe labor costs by earned payroll. The labor loading rates are reviewed monthly and adjusted, as needed, to clear fringe labor costs yearly.

In symbolic format, the charges for labor are calculated as follows:

$$L = DL + FL + ME = DL \times (1 + \text{llr}) + ME$$

### **3 Equipment**

Equipment (E), primarily vehicles, used in the performance of maintenance are charged based on actual hours of usage (aeu) and hourly equipment cost rates (ecr). Cost of purchasing, leasing, and operating equipment, by equipment class, are collected in clearing accounts and divided by total hours of usage by class to develop the equipment cost rates. Equipment cost rates are reviewed quarterly and adjusted, as needed, to clear the cost of equipment.

In symbolic format, equipment charges are calculated as follows:

$$E = (\text{aeu}) \times (\text{ecr})$$

### **4 Outside Services**

The actual amount of invoices received from vendors for restorative and other maintenance services (S) performed by third parties for AEP on behalf of the Generating Company are charged in maintenance billings by AEP.

### **5 Engineering and Administration**

Engineering and administrative overhead loading rates are used to allocate engineering, supervision, and administrative overhead costs not assigned to specific project work orders. AEP uses separate loading rates for AEP Service Corporation engineering (SCe&d) and operating company construction overhead costs (CCO). A complete description of the costs recovered through the loading rates is provided in Note 1 to page 218 of each AEP Company's

FERC Form-1 Report. A copy of that note is included as the last page in this Appendix G.

As the description of Construction Overhead Procedure shows, the CCO and SCEt&d loading rates (cclr and sclrt&d, respectively) are derived in the normal course of business for the purpose of capturing the portions of AEP Service Corporation engineering and operating company construction overhead costs which are incurred in connection with transmission and distribution (T&D) plan construction. The cclr and sclrt&d are reviewed monthly and updated, as needed, to clear the respective engineering and administrative overhead costs yearly.

In symbolic format, the engineering and administration overhead costs (O) are calculated as follows:

$$O = CCO + SCEt\&d$$

$$\text{Where } CCO = (M + L + E + S) \times cclr$$

$$\text{and } SCEt\&d = (M + L + E + S + CCO) \times sclrt\&d$$

## 6 Taxes

The total taxes charged to the Generating Company will be the sum of receipts and other taxes incurred.

$$\text{i.e.: } T = RT + OT$$

### Summary of Charges

The total Operation and Maintenance (O&M) charges under this Agreement in symbolic

form are:

$$O\&M = M + L + E + S + O + T$$

Where M, L, E, S, O, and T are calculated as explained in Sections 1 through 6 above, respectively.

FERC FORM 1 12/31/95 < Page 218 >.

General Description of Construction overhead Procedure:

1A. Engineering and Supervision (American Electric Power Service Corporation )

(a) Overheads "Engineering, Technical and Drafting Services" are engineering services performed by the Engineering Department of American Electric Power Service Corporation (AEPSC).

(b) In accordance with provisions of a service agreement between American Electric Power Service Corporation (AEPSC) and the respondent, approved by the Securities and Exchange Commission February 19, 1981, salaries, expenses and overheads of AEPSC personnel directly relating to construction activities are collected by means of a work order system and billed to the respondent as:

(1) Identifiable costs, generally relating to major construction projects, for which timekeeping and other specific cost identification is economically feasible, and

(2) Non-identifiable costs, generally relating to numerous small construction

projects, for which timekeeping and other specific cost identification are not economically feasible.

- (c) Charges billed by AEPSC as (b)(1) above are charged directly by respondent to the applicable specific construction projects. Charges billed by AEPSC as (b)(2) above are allocated to all applicable construction projects proportionate to the direct costs charged to such projects.
  - (d) A uniform rate is applied to all subject construction expenditures.
  - (e) See (d) above.
  - (f) See (c) above.
- 1B. Company Construction Overheads in its own Operating Division, Engineering Department and System Office Departments
- (a) Charges representing cost of Company's Engineering Supervision and related drafting and technical work.
  - (b) On basis of time and work studies.
  - (c) Spread to accounts in proportion to dollar value on construction for those classes of construction accounts to which these overheads are considered to be applicable.
  - (d) For each class of overheads the same percentage is used for all types of construction.



(e) Not applicable. See (d) above.

(f) Shown on page 217.

1C. Company Construction Overheads in Administrative and General Departments

(a) Proportion of Administrative and General Expenses representing salaries and expenses of General Office and Managerial employees applicable to construction.

(b) Partly on basis of time and work studies.

(c) Spread to accounts in proportion to dollar value of construction for those classes of construction accounts to which these overheads are considered to be applicable.

(d) For each class of overheads the same percentage is used for all types of construction.

(e) Not applicable. See (d) above.

(f) See note (c) above

**RATE SCHEDULE No. 301**

**BRIDGE AGREEMENT**

**among**

**APPALACHIAN POWER COMPANY,  
INDIANA MICHIGAN POWER COMPANY,  
KENTUCKY POWER COMPANY,  
OHIO POWER COMPANY,  
AEP GENERATION RESOURCES INC.**

**and**

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

**as Agent**

Tariff Submitter: **Appalachian Power Company**  
FERC Program Name: **FERC FPA Electric Tariff**  
Tariff Title: **APCo Rate Schedules and Service Agreements Tariffs**  
Tariff Proposed Effective Date: **01/01/2014**  
Tariff Record Title: **Bridge Agreement**  
Option Code: **A**  
Record Content Description: **Rate Schedule No. 301**

## **BRIDGE AGREEMENT**

**THIS AGREEMENT** is made and entered into as of this 1st day of January, 2014, by and among Appalachian Power Company (“APCo”), Indiana Michigan Power Company (“I&M”), Kentucky Power Company (“KPCo”), Ohio Power Company (“OPCo” and, collectively with APCo, I&M and KPCo, the “Operating Companies”), AEP Generation Resources Inc. (“AEP Generation Resources”) and American Electric Power Service Corporation (“Agent” and, collectively with APCo, I&M, KPCo, OPCo and AEP Generation Resources, the “Parties”).

### **RECITALS:**

**WHEREAS**, the Operating Companies are each wholly-owned subsidiaries of American Electric Power Company, Inc. (“AEP”) and members of the Interconnection Agreement (“Pool Agreement”), which has been in effect since 1951;

**WHEREAS**, each member of the Pool Agreement has provided notice to the other members (and to the Agent) that it will terminate its participation in the Pool Agreement in accordance with the termination provisions thereof;

**WHEREAS**, pursuant to the Pool Agreement, the Operating Companies have made joint wholesale purchases and sales of physical power (at market based rates), and of financial power, for the purpose of hedging the output of the Operating Companies’ generation assets, some of which will not expire until after the Pool Agreement terminates (“Legacy Hedge Contracts”);

**WHEREAS**, in addition to the Legacy Hedge Contracts, the Operating Companies have made other joint wholesale purchases and sales of physical power (at market based rates), and of financial power and related commodities, pursuant to the Pool Agreement under joint purchase and sale contracts, some of which will also not expire until after the Pool Agreement terminates (collectively the “Legacy Trading Contracts”);

**WHEREAS**, the Operating Companies desire to jointly share in the gains and losses resulting from the settlement and liquidation in the market of the Legacy Hedge Contracts and Legacy Trading Contracts (collectively, the “Legacy Off-System Sales Portfolio”);

**WHEREAS**, the Operating Companies have previously elected to fulfill their capacity obligations to PJM pursuant to the Fixed Resource Requirement (“FRR”) alternative under the

PJM Reliability Assurance Agreement through and including Planning Year 2014/2015 (the “Operating Companies’ FRR Obligation”) and desire to continue to fulfill those obligations;

**WHEREAS**, the Public Utilities Commission of Ohio in a Finding and Order issued October 17, 2012 in Case No. 12-1126-EL-UNC has authorized OPCo to conduct an internal corporate reorganization under which its generation and power marketing businesses will be separated from its transmission and distribution businesses consistent with Ohio restructuring law and OPCo’s structural corporate separation plan;

**WHEREAS**, for the benefit of the Operating Companies, this Agreement commits the retained capacity resources of AEP Generation Resources, which it acquired from OPCo as a result of corporate separation and pursuant to the Asset Contribution Agreement, to fulfilling the Operating Companies’ FRR Obligation through and including Planning Year 2014/2015; and

**WHEREAS**, pursuant to OPCo’s corporate separation plan and the terms of the Asset Contribution Agreement between OPCo and AEP Generation Resources, AEP Generation Resources will succeed to all of OPCo’s right, title and interest in and to its generation and power marketing business (excepting the limited generation assets specifically retained by OPCo) and to all associated liabilities, including all of OPCo’s allocations of (1) gains and losses from the Legacy Off-System Sales Portfolio, (2) the Operating Companies’ FRR Obligations, (3) FRR Charges and Credits, and (4) all costs and liabilities associated with the foregoing, from which AEP Generation Resources will indemnify, defend and hold harmless OPCo pursuant to the terms of the Asset Contribution Agreement.

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

## **ARTICLE I**

### **DEFINITIONS**

**1.1 Capacity Resources** means, in respect of any Planning Year, the megawatts of net capacity from the Operating Companies and AEP Generation Resources eligible to satisfy the Operating Companies’ FRR Obligation.

**1.2 Capacity Requirement** means, in respect of any Planning Year, the megawatts of net capacity from the Operating Companies and AEP Generation Resources required to satisfy the Operating Companies’ FRR Obligation.

**1.3 Commission** means the Federal Energy Regulatory Commission.

**1.4 Final MLR** means, for each member of the Pool Agreement, the arithmetic average of the member's MLR for each of the twelve full calendar months preceding the termination of the Pool Agreement.

**1.5 FRR Charges and Credits** means all PJM charges and credits arising from or relating to the Operating Companies' FRR Obligation, including but not limited to capacity auction revenues and cost of compliance with the Operating Companies' FRR Obligations under the PJM Reliability Assurance Agreement.

**1.6 Member Demand** means Member Load Obligation determined on a clock-hour integrated kilowatt basis, as set forth in Section 5.4 of the Pool Agreement.

**1.7 Member Load Obligation** means an Operating Company's internal load plus any firm power sales to un-affiliated and affiliated companies other than the Operating Companies, principally characterized by the Operating Company assuming the load obligation as its own firm power commitment and by the Operating Company retaining advantages accruing from meeting the load, as set forth in Section 5.2 of the Pool Agreement.

**1.8 Member Load Ratio or MLR** means the ratio of a particular Operating Company's Member Maximum Demand in effect for a calendar month to the sum of all of the Operating Companies' Member Maximum Demands in effect for such month, as set forth in Section 5.6 of the Pool Agreement.

**1.9 Member Maximum Demand** means the Member Maximum Demand in effect for a calendar month for a particular Operating Company, which shall be equal to the maximum Member Demand experienced by said Operating Company during the twelve consecutive calendar months next preceding such calendar month, as set forth in Section 5.5 of the Pool Agreement.

**1.10 Operating Committee** means the administrative body established pursuant to Article IV for the purposes therein specified.

**1.11 PJM** means PJM Interconnection, LLC, a regional transmission organization approved by the Commission.

**1.12 Planning Year** means each period of June 1 through May 31 of the following year during the term of this Agreement, in whole or in part, which period constitutes a planning year as defined by PJM.

## ARTICLE II TERM OF AGREEMENT

**2.1 Term.** Subject to Commission approval or acceptance for filing, this Agreement shall take effect upon the effective date of the corporate separation of OPCo's generation and power marketing businesses from its transmission and distribution businesses and shall continue in full force and effect until the later of the settlement of the Legacy Off-System Sales Portfolio or the end of the Operating Companies' FRR Obligation under this Agreement, provided, however, that the Parties' obligations under Article V will only apply to the period starting on the effective date of this Agreement and ending May 31, 2015. The Agent will provide notice to the Operating Companies and AEP Generation Resources of the end of the term of this Agreement.

## ARTICLE III AGENT

**3.1 Delegation and Acceptance of Authority.** The Operating Companies and AEP Generation Resources hereby delegate to the Agent and the Agent hereby accepts responsibility and authority for the duties specified in this Agreement. Except as herein expressly established otherwise, the Agent shall perform each of those duties in consultation with the Operating Committee.

**3.2 Reporting.** The Agent shall provide periodic summary reports of its activities under this Agreement to the Parties and shall keep the Parties and the Operating Committee informed of situations or problems that may materially affect the outcome of these activities. Furthermore, the Agent agrees to report to the Parties and to the Operating Committee in such additional detail as is requested regarding specific issues or projects under its supervision as Agent. The Agent will carry out its responsibilities under this paragraph in accordance with the regulations of the Commission.

## ARTICLE IV OPERATING COMMITTEE

**4.1 Operating Committee.** By written notice to the other Parties, each Party shall name one representative ("Representative") to act for it in matters pertaining to this Agreement and its implementation. A Party may change its Representative at any time by written notice to the other Parties. The Representatives of the respective Parties shall comprise the Operating Committee. The Agent's Representative shall act as the chairman of the Operating Committee

(“Chairman”). All decisions of the Operating Committee shall be by a simple majority vote of the Representatives.

**4.2 Subcommittees.** The Chairman, or any other Representative, subject to a majority of the Operating Committee concurring, may create a subcommittee or working group of the Operating Committee (“Subcommittee”). Membership in a Subcommittee will be determined by the Operating Committee. Subcommittees shall perform the duties assigned to them and shall report to the Operating Committee on all matters referred to them. Actions of a Subcommittee shall be reported in the form of proposals or recommendations to the Operating Committee and shall have no force or binding effect except by action of the Operating Committee.

**4.3 Meeting Dates.** The Operating Committee and each Subcommittee thereof shall hold meetings at such times, means, and places as the members shall determine. Minutes of each Operating Committee and Subcommittee meeting shall be prepared and maintained.

**4.4 Information for Use of the Agent.** The Parties shall cooperate in providing to the Agent the information it reasonably requests and shall supplement or correct any such information on a timely basis.

## ARTICLE V

### FRR OBLIGATION

**5.1 Annual Capacity Resource Planning.** Prior to each Planning Year, the Agent will analyze the impacts on the Operating Companies’ FRR Obligation of projected and realized changes to Capacity Resources and Capacity Requirements and prepare a recommended Capacity Resource plan for the Operating Companies’ FRR Obligation. The plan will describe whether additional Capacity Resources should be made available to the market and whether additional Capacity Resources should be procured for the applicable Planning Year. The portion of the Capacity Resource plan that applies to the Capacity Resources of the Operating Companies is subject to their unanimous written approval in consultation with the Agent. The portion of the Capacity Resource plan that applies to the Capacity Resources of AEP Generation Resources is subject to its written approval in consultation with the Agent. The Agent will have no duty to provide to AEP Generation Resources any portion of the Capacity Resource plan that applies to the Capacity Resources of the Operating Companies. If a Capacity Resource plan submitted by the Agent is rejected by the Operating Companies or by AEP Generation

Resources, then the Agent will revise and resubmit the plan in accordance with the foregoing procedures until the plan is accepted by both the Operating Companies and AEP Generation Resources.

**5.2 Capacity Resource Plan Implementation.** During each Planning Year, the Agent will collect Capacity Resource information from the Operating Companies and AEP Generation Resources and may alter the combination of Capacity Resources in the plan based on that information to maintain the Operating Companies' compliance with the PJM Reliability Assurance Agreement and to minimize compliance charges to the extent reasonably practicable. The Agent will implement the Capacity Resource plan for the Operating Companies' FRR Obligation, and any plan adjustments, with PJM. During each Planning Year, the Operating Companies and AEP Generation Resources will each perform testing of their Capacity Resources in accordance with the PJM Reliability Assurance Agreement and in consultation with the Agent.

**5.3 Allocation of Capacity-Related Charges and Credits.** The Agent will allocate PJM charges and credits associated with (1) Capacity Resource purchases and sales (excepting only those purchases and sales related to the generation assets specifically retained by OPCo) and (2) FRR Charges and Credits, among APCo, KPCo, I&M and AEP Generation Resources, as successor to the FRR obligations of OPCo, based on the Final MLR.

**5.4 Other Agreements.** The fulfillment of the Operating Companies' FRR Obligation, including the allocation of any associated charges and credits, for the Planning Years covered by this Article V, shall be governed by this Agreement and not by the Power Coordination Agreement among APCo, KPCo, I&M and the Agent.

## ARTICLE VI

### LEGACY CONTRACTS

**6.1 Legacy Trading Portfolio.** The Agent will settle and liquidate the Legacy Trading Portfolio in the market in accordance with the terms of the Legacy Trading Contracts and Legacy Hedge Contracts.

**6.1.1 Legacy Trading Contracts.** The Agent shall allocate gains and losses arising from the settlement and liquidation of the Legacy Trading Contracts in the market among APCo, KPCo, I&M and AEP Generation Resources, as successor to the generation-related obligations of OPCo, based on the Final MLR. The Agent may, from time to time, enter into new transactions on behalf of the Operating Companies that are



dedicated to the portfolio of Legacy Trading Contracts with the intent of reducing the tenor and/or risk of that portfolio, and those additional transactions will also be deemed Legacy Trading Contracts, provided that the Agent will not enter into any such transaction whose term extends beyond the final delivery month of the portfolio of Legacy Trading Contracts on the effective date of this Agreement.

**6.1.2 Legacy Hedge Contracts.** The Agent shall allocate gains and losses arising from the settlement and liquidation of the Legacy Hedge Contracts in the market to (1) APCo, KPCo and I&M collectively (the “Integrated AEP-East Utilities”) and (2) AEP Generation Resources, as successor to the generation-related obligations of OPCo, in a ratable manner based on the respective forecasted spot market energy sales of the Integrated AEP-East Utilities, collectively, and AEP Generation Resources, determined as of the effective date of this Agreement. The forecasted spot market energy sales for the Integrated AEP-East Utilities, collectively, and AEP Generation Resources will be calculated in monthly increments based on the forecasted output of their owned or contracted generation minus forecasted internal load. The forecasted internal load for the Integrated AEP-East Utilities is defined as the forecasted amount of megawatt-hours associated with their retail and firm wholesale loads in the aggregate, using the most recent forecast available as of the effective date of this Agreement. The forecasted internal load for AEP Generation Resources is defined as the forecasted amount of megawatt-hours to be provided by AEP Generation Resources to OPCo, under the Ohio Power Supply Agreement between those parties, and to any non-Parties, under other firm wholesale contracts, if any, determined as of the effective date of this Agreement. The monthly forecasts will be calculated through and including the final delivery month of the portfolio of Legacy Hedge Contracts. Any allocation of gains and losses to the Integrated AEP-East Utilities will be shared among APCo, KPCo and I&M in a ratable manner based on their forecasted spot market energy sales. If the forecasted internal load of either the Integrated AEP-East Utilities or AEP Generation Resources exceeds the forecasted output of their respective owned or controlled generation for a given month, then the Integrated AEP-East Utilities or AEP Generation Resources, as applicable, will not receive any allocation of gains or losses for that month, unless both are in this position in which case gains or losses will be allocated ratably among APCo, KPCo, I&M

and AEP Generation Resources in proportion to the forecasted output of their owned or contracted generation.

**6.2 Legacy Trading Contracts Administration.** The Agent will administer the scheduling, billing, settlement and liquidation in the market of the Legacy Off-System Sales Portfolio, and will provide such information, reports and position data to each Party as is requested regarding the Party's allocation of the Legacy Off-System Sales Portfolio. Any gains and losses arising from the liquidation of the Legacy Off-System Sales Portfolio shall be governed and allocated by this Agreement and not by the Power Coordination Agreement among APCo, KPCo, I&M and the Agent.

## **ARTICLE VII BILLING PROCEDURES**

**7.1 Records.** The Agent will maintain the records necessary to determine the allocation of all gains, losses, charges and credits under this Agreement. Such records shall be made available to the Operating Companies and to AEP Generation Resources upon request for a period not to exceed three (3) years.

**7.2 Monthly Statements.** As promptly as practicable after the end of each calendar month, the Agent shall prepare a statement setting forth the monthly summary of all gains, losses, charges and credits allocated or assigned to the Parties in sufficient detail as may be needed for settlements under the provisions of this Agreement. As required, the Agent may provide such statements on an estimated basis and then adjust those statements for actual results.

**7.3 Billings and Payments.** The Agent shall handle all billing between the Parties and non-Parties regarding the Legacy Contract Portfolio and the Operating Companies' FRR Obligation. Payments by the Operating Companies and AEP Generation Resources shall be made by remittance of the net amount billed to the applicable Party or by making appropriate accounting entries on the books of the Parties. The entire amount shall be paid when due.

**7.4 Taxes.** Should any federal, state, or local tax, surcharge or similar assessment, in addition to those that may now exist, be levied upon the services to be provided in connection with this Agreement, or upon the provider of service as measured by the services or the revenue therefrom, such additional amount shall be included in the billing described in this Article VII.

**7.5 Billing Errors.** If the Agent or any other Party discovers a billing error pertaining to a prior billing for reasons including, but not limited to, billing omissions or missing

Sheet No. 10

or erroneous data or calculations (including those caused by meter, computer or human error), a corrective adjustment will be calculated by the Agent. Except as the Operating Committee may authorize in the exercise of reasonable discretion, the correction adjustment shall not be applied to any period earlier than the beginning of the first full billing month preceding the discovery of the error, nor will interest accrue on such adjustment. The corrective adjustment will be applied as soon as practicable to the next subsequent regular monthly bill. Any overpaid amount attributed to such billing errors shall be returned by the owing Party upon determination of the correct amount with no interest.

**7.6 Billing Disputes.** The Parties shall have the right to dispute the accuracy of any bill or payment for a period not to exceed one month from the date on which the bill was initially delivered. Following this one month period, the right to dispute a bill is permanently waived for any and all reasons including but not limited to, (a) errors, (b) omissions, (c) Agent's actions, and (d) the Operating Committee's decisions, Agreement interpretations and direction in the administration of the Agreement. Any amounts collected or reimbursed due to such disputes shall exclude interest.

## ARTICLE VIII

### FORCE MAJEURE

**8.1 Events Excusing Performance.** No Party shall be liable to another Party for or on account of any loss, damage, injury, or expense resulting from or arising out of a delay or failure to perform, either in whole or in part, any of the agreements, covenants, or obligations made by or imposed upon the Parties by this Agreement, by reason of or through strike, work stoppage of labor, failure of contractors or suppliers of materials (including fuel, consumables or other goods and services), failure of equipment, environmental restrictions, riot, fire, flood, ice, invasion, civil war, commotion, insurrection, military or usurped power, order of any court or regulatory agency granted in any *bona fide* legal proceedings or action, or of any civil or military authority either *de facto* or *de jure*, explosion, Act of God or the public enemies, or any other cause reasonably beyond its control and not attributable to its neglect. A Party experiencing such a delay or failure to perform shall use due diligence to remove the cause or causes thereof; however, no Party shall be required to add to, modify or upgrade any facilities, or to settle a strike or labor dispute except when, according to its own best judgment, such action is advisable.

## ARTICLE IX

### GENERAL

**9.1 No Third Party Beneficiaries.** This Agreement does not create rights of any character whatsoever in favor of any person, corporation, association, entity or customer, other than the Parties, and the obligations herein assumed by the Parties are solely for the use and benefit of the Parties. Nothing in this Agreement shall be construed as permitting or vesting, or attempting to permit or vest, in any person, corporation, association, entity or customer, other than the Parties, any rights hereunder or in any of the resources or facilities owned or controlled by the Parties or the use thereof.

**9.2 Waivers.** Any waiver at any time by a Party of its rights with respect to a 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, except as otherwise set forth herein.

**9.3 Successors and Assigns.** This Agreement shall inure to the benefit of and be binding upon the Parties only, and their respective successors and assigns, and shall not be assignable by any Party without the written consent of the other Parties except to a successor in the operation of its properties by reason of a reorganization, to comply with state or federal restructuring requirements, or a merger, consolidation, sale or foreclosure whereby substantially all such properties are acquired by or merged with those of such a successor.

**9.4 Liability and Indemnification.** SUBJECT TO ANY APPLICABLE STATE OR FEDERAL LAW THAT MAY SPECIFICALLY RESTRICT LIMITATIONS ON LIABILITY, EACH PARTY SHALL RELEASE, INDEMNIFY, AND HOLD HARMLESS THE OTHER PARTIES, THEIR DIRECTORS, OFFICERS AND EMPLOYEES FROM AND AGAINST ANY AND ALL LIABILITY FOR LOSS, DAMAGE OR EXPENSE ALLEGED TO ARISE FROM, OR BE INCIDENTAL TO, INJURY TO PERSONS AND/OR DAMAGE TO PROPERTY IN CONNECTION WITH ITS FACILITIES OR THE PRODUCTION OR TRANSMISSION OF ELECTRIC ENERGY BY OR THROUGH SUCH FACILITIES, OR RELATED TO PERFORMANCE OR NON-PERFORMANCE OF THIS AGREEMENT, INCLUDING ANY NEGLIGENCE ARISING HEREUNDER. IN NO EVENT SHALL ANY PARTY BE LIABLE TO ANOTHER PARTY FOR ANY INDIRECT, SPECIAL,

INCIDENTAL, OR CONSEQUENTIAL DAMAGES WITH RESPECT TO ANY CLAIM ARISING OUT OF THIS AGREEMENT.

**9.5 Notice.** Any notice or demand for performance required or permitted under any of the provisions of this Agreement shall be deemed to have been given on the date such notice, in writing, is delivered by hand or deposited in the U.S. mail, postage prepaid, addressed to the Parties at their principal place of business at 1 Riverside Plaza, Columbus, Ohio 43215, or in such other form or to such other address as the Parties may stipulate.

**9.6 Interpretation.** In this Agreement: (a) unless otherwise specified, references to any Article or Section are references to such Article or Section of this Agreement; (b) the singular includes the plural and the plural includes the singular; (c) unless otherwise specified, each reference to a requirement of any governmental entity or regional transmission organization includes all provisions amending, modifying, supplementing or replacing such governmental entity or regional transmission organization from time to time; (d) the words “including,” “includes” and “include” shall be deemed to be followed by the words “without limitation”; (e) unless otherwise specified, each reference to any agreement includes all amendments, modifications, supplements, and restatements made to such agreement from time to time which are not prohibited by this Agreement; (f) the descriptive headings of the various Articles and Sections of this Agreement have been inserted for convenience of reference only and shall in no way modify or restrict the terms and provisions thereof; and (g) “herein,” “hereof,” “hereto” and “hereunder” and similar terms refer to this Agreement as a whole.

## ARTICLE X

### REGULATORY APPROVAL

**10.1 Regulatory Authorization.** This Agreement is subject to and conditioned upon its approval or acceptance for filing without material condition or modification by the Commission. In the event that this Agreement is not so approved or accepted for filing in its entirety without modification, or the Commission subsequently modifies this Agreement upon complaint or upon its own initiative, any Party may, irrespective of the notice provisions in Section 2.1, withdraw from this Agreement by giving thirty (30) days’ advance written notice to the other Parties.

**10.2 Changes.** It is contemplated by the Parties that it may be appropriate from time to time to change, amend, modify, or supplement this Agreement to reflect changes in operating

Sheet No. 13

practices, PJM procedures or for other reasons. Any such changes to this Agreement shall be in writing executed by the Parties and subject to approval or acceptance for filing by the Commission. It is the intent of the Parties that, to the maximum extent permitted by law, the provisions of this Agreement shall not be subject to change under Sections 205 and 206 absent the written agreement of the Parties, and that the standard of review for changes unilaterally proposed by a Party, a non-Party or the Commission, acting sua sponte or at the request of a non-Party, shall be the public interest standard of review set forth in *United Gas Pipe Line Co. v. Mobile Gas Service Corp.*, 350 U.S. 332 (1956), *Federal Power Commission v. Sierra Pacific Power Co.*, 350 U.S. 348 (1956), *Morgan Stanley Capital Group, Inc. v. Public Utility District No. 1 of Snohomish County*, 128 S.Ct. 2733 (2008), and *NRG Power Marketing, LLC v. Maine Public Utilities Commission*, 130 S.Ct. 693 (2010).

Sheet No. 14

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: Charles Patton

Title: President & COO

**INDIANA MICHIGAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**KENTUCKY POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**OHIO POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AEP GENERATION RESOURCES INC.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Sheet No. 14

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**INDIANA MICHIGAN POWER COMPANY**

By: Paul H. ...

Title: President + COO

**KENTUCKY POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**OHIO POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AEP GENERATION RESOURCES INC.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: \_\_\_\_\_

Title: \_\_\_\_\_



Sheet No. 14

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

**INDIANA MICHIGAN POWER COMPANY**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

**KENTUCKY POWER COMPANY**

By: *Bruce B Pauling*  
Title: *President + COO*

**OHIO POWER COMPANY**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

**AEP GENERATION RESOURCES INC.**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: \_\_\_\_\_  
Title: \_\_\_\_\_

Sheet No. 14

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**INDIANA MICHIGAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**KENTUCKY POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**OHIO POWER COMPANY**

By:  \_\_\_\_\_

Title: President & COO

**AEP GENERATION RESOURCES INC.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Sheet No. 14

**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**INDIANA MICHIGAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**KENTUCKY POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**OHIO POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AEP GENERATION RESOURCES INC.**

By: Charles E Zebala

Title: PRESIDENT

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: \_\_\_\_\_

Title: \_\_\_\_\_

Sheet No. 14

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**INDIANA MICHIGAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**KENTUCKY POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**OHIO POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AEP GENERATION RESOURCES INC.**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: Kurt E. Myung

Title: SVP - Regulatory Services

AFFILIATED TRANSACTIONS AGREEMENT

This AGREEMENT is made and entered into as of the 31st day of December, 1996, by and among American Electric Power Service Corporation, a New York corporation; Appalachian Power Company, a Virginia corporation; Columbus Southern Power Company, an Ohio corporation; Indiana Michigan Power Company, an Indiana corporation; Kentucky Power Company, a Kentucky corporation; Kingsport Power Company, a Virginia corporation; Ohio Power Company, an Ohio corporation; and Wheeling Power Company, a West Virginia corporation (each, a "Company" and collectively, the "Companies").

W I T N E S S E T H :

WHEREAS, the Companies are associate companies in the American Electric Power Company System which comprises American Electric Power Company, Inc. and its subsidiary companies; and

WHEREAS, the Companies have determined that significant operational efficiencies can be achieved by realigning their operations on a regional basis; and

WHEREAS, the Companies desire, where appropriate in certain limited situations, to provide services, sell goods and make facilities and vehicles available to each other;

NOW, THEREFORE, in consideration of such premises, the Companies hereby agree as follows:

ARTICLE I  
AGREEMENT TO PROVIDE SERVICES, SELL GOODS AND  
MAKE FACILITIES AND VEHICLES AVAILABLE AND TO SHARE COSTS

Each Company (a "Delivering Company") agrees to provide services, sell goods and make facilities and vehicles available to the other Companies (a "Receiving Company"), if available, at the Receiving Company's request, upon the terms and conditions set forth in this Agreement. Each Receiving Company agrees to pay to the Delivering Company the cost of services, goods, facilities or vehicles received in accordance with Rules 90 and 91 of the Rules and Regulations of the Securities and Exchange Commission promulgated pursuant to the Public Utility Holding Company Act of 1935, upon the terms and conditions set forth in this Agreement.

ARTICLE II  
ALLOCATION OF COSTS RELATING TO SERVICES

A. Costs relating to services which are provided by a Delivering Company to a Receiving Company shall be accumulated and allocated to the Receiving Company using accounts, work orders or other billing indicators. Labor costs, to the extent practicable, shall be allocated to the Receiving Company or Companies on the

basis of time records. Other costs which can be directly identified with services for a Receiving Company shall be allocated to that Company. Labor costs and other costs that cannot be directly identified with a Receiving Company but which benefit two or more Receiving Companies shall be allocated to the Receiving Companies based upon the ratios set forth in Schedule A to this Agreement or otherwise agreed to in writing between the Companies. The costs of outside services shall be charged directly by the vendor or supplier to the Receiving Company to the extent practicable.

B. Labor costs include (i) the costs of salaries, computed on the basis of each employee's hourly rate, and (ii) payroll-related expenses, overheads and other indirect expenses, allocated in the same proportion as the salaries are allocated.

### ARTICLE III ALLOCATION OF COSTS RELATING TO GOODS

A. Costs related to materials and supplies sold by a Delivering Company to a Receiving Company shall include their book value plus a stores overhead charge for direct and indirect costs associated with purchasing and maintaining the inventory of materials and supplies. The overhead charge will not include investment carrying charges allocated as set forth in Paragraph B of this Article.

B. If a Delivering Company maintains inventory for a Receiving Company, costs associated with the Delivering Company's investment carrying charges for the stores facilities and the inventory will be allocated to the Receiving Company based on a ratio the numerator of which is the total dollar value of inventory issued from the facility to Receiving Company during the last twelve months and the denominator of which is the sum of the total dollar value of the inventory issued to all applicable Companies during the same twelve months. This ratio will be revised semi-annually. The costs also shall include an amount to compensate the Delivering Company for income taxes and other taxes to the extent applicable to such payments for such costs. Inventories at stores facilities will be owned by the Delivering Company.

C. Costs related to capitalized spare parts sold by a Delivering Company to a Receiving Company shall be their book value, net of accumulated depreciation.

### ARTICLE IV ALLOCATION OF COST OF FACILITIES AND VEHICLES

Costs related to a facility of a Delivering Company used directly by a Receiving Company, including depreciation, property taxes, and investment carrying charges (or lease expense, if applicable) will be allocated to the benefitting Company as rent expense based on square footage occupied. Costs relating to a vehicle of the Delivering Company used directly by a Receiving

Company will be allocated to the Receiving Company based on the amount of time that it is used. These cost allocations also shall include an amount to compensate for income taxes and other taxes to the extent applicable.

*ARTICLE V  
INVESTMENT CARRYING CHARGES*

"Investment carrying charges," as used for purposes of Articles III and IV, shall employ the Delivering Company's weighted cost of capital, based on capital structure ratios and embedded costs of long-term debt and preferred stock as of the end of the prior year and the allowed return on common equity capital most recently authorized by a state commission having jurisdiction over the Company's retail rates.

*ARTICLE VI  
TRANSFER OF EMPLOYEES*

When an employee of one Company is transferred to another Company, the Company that receives the employee shall pay directly or indirectly all of the relocation expenses of the transferring employee. The Receiving Company shall assume the liability for accrued compensation owed to the transferring employee at the time of transfer and the sending Company shall reimburse the receiving Company for the payment of such liability.

*ARTICLE VII  
REPRESENTATIONS, WARRANTIES AND REMEDIES,  
LIMITATIONS OF LIABILITY AND INDEMNIFICATION*

A. Unless otherwise disclosed, any Company selling goods to another Company warrants that, at the time of transfer, the good, if new or unused, shall be free from defects in material and workmanship, and, if used, shall be capable of performing its intended function. If any good fails to meet the standards set forth above and if the manufacturer's warranty does not cover the defect, the Delivering Company shall, at its expense, repair or replace the good.

B. Any Company performing services for another Company warrants that it will exercise due care to assure that the services are performed in a workmanlike manner and comply with applicable standards of law and regulations. However, failure to meet these obligations shall in no event subject the Delivering Company to any claims or liabilities other than to reperform the work.

C. Except as expressly provided in this Article, each Receiving Company acknowledges and agrees that the Delivering Companies have not made and do not make any representation, warranty or covenant with respect to merchantability, condition, quality or durability of the goods or services in any respect or in connection with, or for the purpose or use of the Receiving

Company, or any other representation, warranty or covenant or any kind or character expressed or implied with respect thereto.

*ARTICLE VIII  
BILLING OF COSTS AND PAYMENTS*

Costs allocated to a Receiving Company as described in this Agreement shall be billed to the Company within 30 days of the end of each month. Costs may be billed based upon estimates, if (a) such costs are reasonable estimates of expected actual costs, (b) the estimated costs are adjusted at least once annually to the level of actual costs, unless the difference between the estimated and actual costs is insignificant, and (c) both the estimated costs and actual costs are allocated as provided in this Agreement. All amounts billed under this Agreement shall be paid by the Receiving Companies within 15 days after the receipt of each invoice.

*ARTICLE IX  
EXCLUDED SERVICES, GOODS, AND FACILITIES;  
TERMINATION OF AGREEMENTS*

This Agreement shall not apply to: (1) services performed by American Electric Power Service Corporation for the Companies; (2) sales of electric power, provision of transmission services and operation of generating facilities; (3) services, goods, or facilities in connection with the transportation or sale of coal; (4) services provided under the Central Machine Shop Agreement dated January 1, 1979; (5) services, goods or facilities provided under the Mutual Assistance Agreement dated as of July 30, 1987; and (6) services, goods or other matters governed by the Services Agreement between the Cincinnati Gas & Electric Company, Columbus Southern Power Company, The Dayton Power and Light Company and American Electric Power Service Corporation for the Wm. H. Zimmer Generating Station. The Cost Sharing Agreement, dated as of July 1, 1993, between Columbus Southern Power Company and Ohio Power Company and the Lease Agreement, dated May 1, 1995, between American Electric Power Service Corporation and Ohio Power Company are terminated and superseded.

*ARTICLE X  
AMENDMENTS*

This Agreement may be amended from time to time by agreement of the parties hereto.

*ARTICLE XI  
WITHDRAWAL AND TERMINATION*

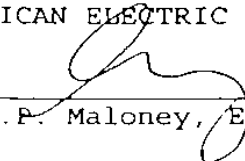
Any Company may withdraw from this Agreement upon not less than 180 days' written notice to the other Companies; this Agreement shall continue in effect after such withdrawal with respect to all Companies that do not withdraw. This Agreement may be terminated without notice if performance hereunder conflicts




with any rule, regulation or order of the Securities and Exchange Commission issued pursuant to the provisions of the 1935 Act.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the date and year first above written.

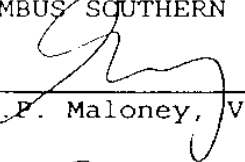
AMERICAN ELECTRIC POWER SERVICE CORPORATION

By:   
G.P. Maloney, Executive Vice President

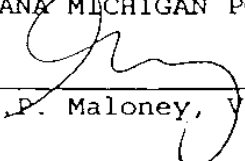
APPALACHIAN POWER COMPANY

By:   
G.P. Maloney, Vice President

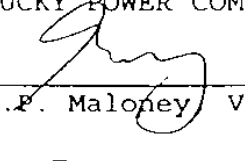
COLUMBUS SOUTHERN POWER COMPANY

By:   
G.P. Maloney, Vice President

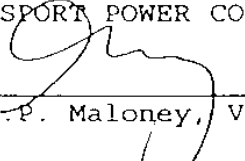
INDIANA MICHIGAN POWER COMPANY

By:   
G.P. Maloney, Vice President

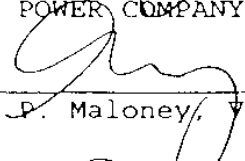
KENTUCKY POWER COMPANY

By:   
G.P. Maloney, Vice President

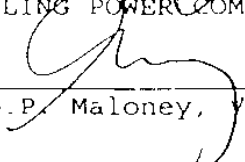
KINGSPORT POWER COMPANY

By:   
G.P. Maloney, Vice President

OHIO POWER COMPANY

By:   
G.P. Maloney, Vice President

WHEELING POWER COMPANY

By:   
G.P. Maloney, Vice President

SCHEDULE A

DESCRIPTION OF SERVICES AND DESIGNATION OF METHODS OF ALLOCATION

A general description of the services which may be performed from time to time by one Company and the method of allocation to be used for costs of services that benefit other Companies, but cannot be specifically identified to a Company, are set forth below:

<u>SERVICES</u>	<u>COST SHARING METHOD</u> *
<i>Marketing</i>	
Consumer Marketing . . . . .	Number of Electric Customers
Key Accounts . . . . .	Number of Electric Customers
Economic Development . . . . .	Number of Electric Customers
Business Services . . . . .	Number of Electric Customers
Marketing Support Services . . . . .	Number of Electric Customers
<i>Distribution Regions</i>	
Managerial . . . . .	Number of Electric Customers
Customer Services . . . . .	Number of Electric Customers
Eng. - Engineering & Planning . . . . .	Number of Electric Customers
Eng. - Information & Drafting . . . . .	Number of Electric Customers
Operations - Administrative . . . . .	Number of Electric Customers
Operations - Meter . . . . .	Number of Electric Customers
Operations - Line . . . . .	Number of Electric Customers
<i>Energy Distribution Support</i>	
<i>Distribution Operations</i>	
Distribution Operations . . . . .	Number of Electric Customers
Right of Way Maintenance . . . . .	Number of Electric Customers
<i>Distribution Engineering</i>	
Engineering & Planning . . . . .	Number of Electric Customers
<i>Distribution Data Systems</i>	
Database Applications . . . . .	Number of Electric Customers
Joint Use . . . . .	Number of Electric Customers
<i>Customer Services</i>	
Customer Call Centers . . . . .	Number of Electric Customers
<i>Energy Transmission</i>	
<i>Transmission Regions</i>	
Transmission Line . . . . .	Tran. & Sub-Tran. Pole Miles
Protection & Control . . . . .	Tran. & Sub-Tran. Pole Miles
Station . . . . .	Tran. & Sub-Tran. Pole Miles
<i>Transmission System Engineering</i>	
Line Engineering . . . . .	Tran. & Sub-Tran. Pole Miles
Line Engineering/Right of Way . . . . .	Tran. & Sub-Tran. Pole Miles
Line Engineering/Survey . . . . .	Tran. & Sub-Tran. Pole Miles
Protection & Control Eng. . . . .	Tran. & Sub-Tran. Pole Miles
Station Engineering . . . . .	Tran. & Sub-Tran. Pole Miles
<u>SERVICES</u>	<u>COST SHARING METHOD</u> *

Station Construction, O&M Admin. System Maint., Tools & Equip. . . . .	Tran. & Sub-Tran. Pole Miles
Operations Center . . . . .	Kwh Sales
<i>Energy Delivery Support</i>	
Measurements & Customer Support	
Measurements Eng. & Support . . . . .	Kwh Sales
Meter Operations . . . . .	Kwh Sales
Telecommunications	
Telecommunications Engineering . . . . .	Number of Employees
Telecommunications Operations . . . . .	Number of Employees
Operations Improvement	
Land Management - Forestry . . . . .	Kwh Sales
Land Management - Real Estate . . . . .	Kwh Sales
Operations Analysis . . . . .	Kwh Sales
<i>Administrative Support</i>	
Administrative	
State Pres./Envir. & Gov't. Aff . . . . .	Kwh Sales
Corporate Communications . . . . .	Kwh Sales
Rates . . . . .	Kwh Sales
Accounting	
Administrative . . . . .	Kwh Sales
Accounts Payable . . . . .	Number of Invoices Processed
Cash Management . . . . .	Kwh Sales
Centralized Cash . . . . .	Number of Electric Customers
Customer Accounting . . . . .	Number of Electric Customers
Data Processing . . . . .	Kwh Sales
Electric Plant . . . . .	Net Plant Investment
General Records . . . . .	Kwh Sales
Reports . . . . .	Kwh Sales
Systems and Procedures . . . . .	Kwh Sales
Corporate Services	
Corporate Services-Admin . . . . .	Kwh Sales
State Taxes . . . . .	Kwh Sales

\* 1. Kwh Sales Ratio

A ratio the numerator of which is the total Kwh sales of the benefitting Company, both billed and unbilled, during the last twelve months and the denominator of which is the sum of the Kwh sales, both billed and unbilled, of all applicable Companies during the same twelve months. Firm intra-System sales, exclusive of the Interchange Power Pool, between the Companies shall be eliminated from a Company's Kwh sales. This ratio will be revised semi-annually, based on figures as of March 31 and September 30.

2. Number of Electric Customers Ratio

A ratio the numerator of which is the number of firm electric customers of the benefitting Company and the denominator of which is the sum of the number of firm electric customers of all applicable Companies. This ratio will be revised semi-annually, based on figures at March 31 and September 30.

3. Number of Employees Ratio

A ratio the numerator of which is the number of employees (exclusive of certain union employees, where applicable) of the benefitting Company and the denominator of which is the sum of the number of employees (exclusive of certain union employees, where applicable) of all applicable Companies. This ratio will be revised semi-annually, based on figures at March 31 and September 30.

4. Net Plant Investment Ratio

A ratio the numerator of which is the investment in utility plant of the benefitting Company (including capital leases and coal mining assets), net of accumulated provisions for depreciation, depletion and amortization, and the denominator of which is the sum of such net investments of all applicable Companies. This ratio will be revised semi-annually, based on figures at March 31 and September 30.

5. Transmission and Sub-Transmission Pole Miles Ratio

A ratio the numerator of which is the transmission and sub-transmission pole miles of the benefitting Company and the denominator of which is the sum of the transmission and sub-transmission pole miles of all applicable Companies. This ratio will be revised annually, based on figures at September 30.

6. Number of Invoices Processed Ratio

A ratio the numerator of which is the number of invoices processed for a benefitting Company during the last twelve months and the denominator of which is the sum of the number of invoices processed for all applicable Companies during the same twelve months. This ratio will be revised semi-annually, based on figures as of March 31 and September 30.

Execution Version

**AFFILIATED TRANSACTIONS AGREEMENT**  
**FOR SHARING**  
**CAPITALIZED SPARE PARTS**

This Affiliated Transactions Agreement (this “Agreement”) is made and entered into effective as of the 1<sup>st</sup> day of January, 2014, by and among American Electric Power Service Corporation, a New York corporation, as agent for Appalachian Power Company, a Virginia corporation; Indiana Michigan Power Company, an Indiana corporation; Kentucky Power Company, a Kentucky corporation; and AEP Generating Company, an Ohio corporation (collectively referred to as “AEP Utility Companies”), and AEP Generation Resources Inc., a Delaware corporation (referred to as “AEP Generation Resources”).

**WITNESSETH**

**WHEREAS**, the AEP Utility Companies own and/or operate multiple electric generating units that use and share with each other various capitalized spare parts (“Capitalized Spares”); and

**WHEREAS**, Ohio Power Company, an affiliate of the AEP Utility Companies, also owns through December 31, 2013 multiple electric generating units that use Capitalized Spares and share them with the AEP Utility Companies; and

**WHEREAS**, the program for sharing Capitalized Spares (the “Program”) among the individual AEP Utility Companies and Ohio Power Company has existed since the mid-1980’s or longer; and

**WHEREAS**, the plants owned and/or operated by the AEP Utility Companies and Ohio Power Company are unique in the industry, in that many units of the same or similar size and design were built to allow parts to be shared among the units; and

**WHEREAS**, in the event of equipment failure in a Capitalized Spare, the Program allows each of the participant companies to get access to a replacement Capitalized Spare much quicker than if such participant company were required to start and follow a competitive bidding process at the time of the Capitalized Spare failure; and

**WHEREAS**, the Program allows each participant company to lower its costs by maintaining a smaller inventory of Capitalized Spares than it would have to maintain if it were not a participant company in the Program; and

**WHEREAS**, the Program results in substantial savings in cost and time to each of the participant companies; and

**WHEREAS**, effective December 31, 2013, Ohio Power Company will transfer to AEP Generation Resources numerous electric generating units; and

**WHEREAS**, both the AEP Utility Companies and AEP Generation Resources desire to continue the Program for sharing Capitalized Spares following the transfer of certain generating assets from Ohio Power Company to AEP Generation Resources; and

**WHEREAS**, for the reasons set forth above, this Agreement is in the public interest;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants, agreements and representations set forth herein, the parties intending to be legally bound hereby agree as follows:

**Article 1**  
**THE PROGRAM**

A. The Program for sharing Capitalized Spares applies to sales of plant and equipment (but not materials and supplies) from one AEP Utility Company to another AEP Utility Company or to AEP Generation Resources, and from AEP Generation Resources to an AEP Utility Company. This Agreement, however, relates only to sales of Capitalized Spares from an AEP Utility Company (individually a "Party") to AEP Generation Resources and from AEP Generation Resources (also a "Party") to an AEP Utility Company; it does not apply to sales between two AEP Utility Companies.

B. In the event that one of the Parties needs a Capitalized Spare that another Party has in inventory, the Party that needs the Capitalized Spare (the "Receiving Party") can request that the Capitalized Spare be made available to it. Each Party agrees that if it has a Capitalized Spare that another Party requests, it (the "Delivering Party") will provide the Capitalized Spare under the terms and conditions set forth in this Agreement, and each Receiving Party agrees to pay the Delivering Party the cost of such Capitalized Spare as provided herein.

C. A part that is replaced by a Capitalized Spare will be repaired and refurbished if possible and become a part of the Capitalized Spares inventory of the Receiving Party.

**Article 2**  
**COST**

A. Sales of Capitalized Spares under this Agreement will be at book value, net of accumulated depreciation, except as permitted by any other applicable order filed with FERC or required by applicable state rule.

**Article 3**  
**REPRESENTATIONS, WARRANTIES AND REMEDIES, AND**  
**LIMITATIONS OF LIABILITY**

A. Unless otherwise disclosed, a Delivering Party warrants that, at the time of transfer, the Capitalized Spare shall be capable of performing its intended function. If the Capitalized Spare fails to meet this standard and if the manufacturer's warranty does not cover the defect, then the Delivering Party shall, at its expense, repair or replace the Capitalized Spare, or may elect to refund the Receiving Party's payments and take back the Capitalized Spare.

B. Except as expressly provided herein, each Receiving Party acknowledges that the Delivering Party has not made any representation, warranty or covenant with respect to merchantability, condition, quality or durability of the Capitalized Spare, or any other representation, warranty or covenant of any kind or character, expressed or implied, with respect to the Capitalized Spare.

C. No Party hereunder shall be liable to any other Party for any special, indirect, incidental, punitive or consequential damages that may arise from participation in the Program.

**Article 4**  
**BILLING OF COSTS AND PAYMENTS**

A. Costs allocated to a Receiving Party shall be billed within 30 days of the end of each month. All amounts billed under this Agreement shall be paid by the Receiving Party within 15 days after receipt of the invoice.

**Article 5**  
**AMENDMENTS**

A. This Agreement may be amended from time to time by agreement of the Parties.

**Article 6**  
**WITHDRAWAL AND TERMINATION**

A. Any Party may withdraw from this Agreement upon not less than 180 days written notice to the other Parties, in which case this Agreement shall continue in effect after such withdrawal with respect to those Parties that do not withdraw. This Agreement may be terminated without notice if performance hereunder conflicts with any applicable rule, regulation or order of a governmental entity having authority over the Parties.

B. This Agreement shall not be effective with regard to Indiana Michigan Power Company until the later of January 1, 2014 or the date upon which it is filed with the Indiana Utility Regulatory Commission.


C. This Agreement shall not be effective with regard to Appalachian Power Company ("Appalachian") until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Agreement. This provision shall not affect the obligations of any other party hereto. If this Agreement becomes effective as to Appalachian, it shall terminate as to Appalachian on the fifth anniversary of its receipt of any regulatory approvals.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed effective as of January 1, 2014.

**AMERICAN ELECTRIC POWER  
SERVICE CORPORATION, As Agent  
For Appalachian Power Company,  
Indiana Michigan Power Company,  
Kentucky Power Company, and  
AEP Generating Company**

**AEP GENERATION RESOURCES INC.**

By: \_\_\_\_\_

  
Mark C. McCullough

Executive Vice President -  
Generation

By: \_\_\_\_\_



Charles E. Zebula  
President



Execution Version

**AFFILIATED TRANSACTIONS AGREEMENT**  
**FOR SHARING**  
**MATERIALS AND SUPPLIES**

This Affiliated Transactions Agreement (this “Agreement”) is made and entered into effective as of the 1<sup>st</sup> day of January, 2014, by and among American Electric Power Service Corporation, a New York corporation, as agent for Appalachian Power Company, a Virginia corporation; Indiana Michigan Power Company, an Indiana corporation; Kentucky Power Company, a Kentucky corporation; Ohio Power Company, an Ohio corporation; and AEP Generating Company, an Ohio corporation (collectively referred to as “AEP Utility Companies”), and AEP Generation Resources Inc., a Delaware corporation (referred to as “AEP Generation Resources”).

**WITNESSETH**

**WHEREAS**, the AEP Utility Companies own and/or operate multiple electric generating units and transmission and distribution systems that use and share with each other various materials and supplies (collectively “Materials”); and

**WHEREAS**, the program for sharing Materials (the “Program”) among the individual AEP Utility Companies has existed since the mid-1980’s or longer; and

**WHEREAS**, the plants and systems owned and/or operated by the AEP Utility Companies allow Materials to be shared among the plants and systems; and

**WHEREAS**, in the event of failure or shortfall in Materials, the Program allows each of the participant companies to get access to replacement Materials much quicker than if such participant company were required to start and follow a competitive bidding process at the time of the failure or shortfall; and

**WHEREAS**, the Program allows each participant company to lower its costs by maintaining a smaller inventory of Materials than it would have to maintain if it were not a participant company in the Program; and

**WHEREAS**, the Program results in substantial savings in cost and time to each of the participant companies; and

**WHEREAS**, effective December 31, 2013, Ohio Power Company will transfer to AEP Generation Resources numerous electric generating units; and

**WHEREAS**, both the AEP Utility Companies, including Ohio Power Company, and AEP Generation Resources desire to continue the Program for sharing Materials following the transfer of certain assets from Ohio Power Company to AEP Generation Resources; and

**WHEREAS**, for all of the reasons set forth above, this Agreement is in the public interest;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants, agreements and representations set forth herein, the parties intending to be legally bound hereby agree as follows:

**Article 1**  
**THE PROGRAM**

A. The Program for sharing Materials covers sales of Materials from one AEP Utility Company to another AEP Utility Company or to AEP Generation Resources, and from AEP Generation Resources to an AEP Utility Company. This Agreement, however, relates only to sales of Materials from an AEP Utility Company (individually a “Party”) to AEP Generation Resources and from AEP Generation Resources (also a “Party”) to an AEP Utility Company; it does not apply to sales between two AEP Utility Companies, and the Affiliated Transaction Agreement dated December 31, 1996 related to such sales is not superseded hereby.

B. In the event that one of the Parties needs Materials that another Party has in inventory or available to it, the Party that needs such Materials (the “Receiving Party”) can request that the Materials be made available to it. Each Party agrees that if it has Materials that another Party requests, it (the “Delivering Party”) will provide the Materials under the terms and conditions set forth in this Agreement, and each Receiving Party agrees to pay the Delivering Party for such Materials as provided herein.

**Article 2**  
**PRICE**

A. Sales of Materials under this Agreement from AEP Generation Resources to an AEP Utility Company will be at the lower of fully allocated cost or prevailing market prices, including actual transportation costs, unless another pricing mechanism is directed or approved by an appropriate regulator.

B. Sales of Materials under this Agreement from an AEP Utility Company to AEP Generation Resources will be at the higher of fully allocated cost or prevailing market prices,

including actual transportation costs, unless another pricing mechanism is directed or approved by an appropriate regulator.

**Article 3**  
**REPRESENTATIONS, WARRANTIES AND REMEDIES, AND**  
**LIMITATIONS OF LIABILITY**

A. Unless otherwise disclosed, a Delivering Party warrants that, at the time of transfer, the Materials shall be capable of performing their intended function. If the Materials fail to meet this standard and if the manufacturer's warranty does not cover the defect, then the Delivering Party shall, at its expense, repair or replace the Materials, or may elect to refund the Receiving Party's payments and take back the Materials.

B. Except as expressly provided herein, each Receiving Party acknowledges that the Delivering Party has not made any representation, warranty or covenant with respect to merchantability, condition, quality or durability of the Materials, or any other representation, warranty or covenant of any kind or character, expressed or implied, with respect to the Materials.

C. No Party hereunder shall be liable to any other Party for any special, indirect, incidental, punitive or consequential damages that may arise from participation in the Program.

**Article 4**  
**BILLING OF COSTS AND PAYMENTS**

A. The price of Materials allocated to a Receiving Party shall be billed within 30 days of the end of each month. All amounts billed under this Agreement shall be paid by the Receiving Party within 15 days after receipt of the invoice.

**Article 5**  
**AMENDMENTS**

A. This Agreement may be amended from time to time by agreement of the Parties.

**Article 6**  
**WITHDRAWAL AND TERMINATION**

A. Any Party may withdraw from this Agreement upon not less than 180 days written notice to the other Parties, in which case this Agreement shall continue in effect after such withdrawal with respect to those Parties that do not withdraw. This Agreement may be terminated without notice if performance hereunder conflicts with any applicable rule, regulation or order of a governmental entity having authority over the Parties.


B. This Agreement shall not be effective with regard to Indiana Michigan Power Company until the later of January 1, 2014 or the date upon which it is filed with the Indiana Utility Regulatory Commission.

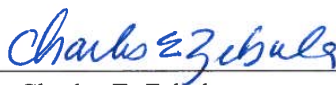
C. This Agreement shall not be effective with regard to Appalachian Power Company ("Appalachian") until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Agreement. This provision shall not affect the obligations of any other party hereto. If this Agreement becomes effective as to Appalachian, it shall terminate as to Appalachian on the fifth anniversary of its receipt of any regulatory approvals.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed effective as of January 1, 2014.

**AMERICAN ELECTRIC POWER  
SERVICE CORPORATION, As Agent  
For Appalachian Power Company,  
Indiana Michigan Power Company,  
Kentucky Power Company, Ohio Power  
Company, and AEP Generating Company**

**AEP GENERATION RESOURCES INC.**

By:   
\_\_\_\_\_  
Mark C. McCullough  
Executive Vice President -  
Generation

By:   
\_\_\_\_\_  
Charles E. Zebula  
President

**AFFILIATED TRANSACTIONS AGREEMENT  
FOR SHARING MATERIALS, EQUIPMENT, SUPPLIES, AND CAPITALIZED SPARE  
PARTS**

This Affiliated Transactions Agreement (the "Agreement") is made and entered into effective as of the 13 day of May, 2021, by and among (a) Appalachian Power Company, a Virginia corporation; Wheeling Power Company, a West Virginia corporation; Indiana Michigan Power Company, an Indiana corporation; Kentucky Power Company, a Kentucky corporation; Kingsport Power Company, a Virginia corporation; Ohio Power Company, an Ohio corporation (collectively referred to as "AEP East Companies"); (b) Public Service Company of Oklahoma; Southwestern Electric Power Company; and AEP Oklahoma Transmission Company, Inc. (collectively referred to as "AEP West Companies"); and (c) American Electric Power Service Corporation ("AEPSC") as agent for the AEP West Companies and the AEP East Companies.

**WITNESSETH:**

**WHEREAS**, the AEP East Companies and the AEP West Companies (collectively, the "AEP Companies") are affiliate companies in the American Electric Power Company system; and

**WHEREAS**, the AEP Companies have determined that significant operational and cost efficiencies can be achieved by the loaning, rental, sharing, or sale of various materials, equipment, supplies, and capitalized spare parts that can be used in the construction, operation, or maintenance of electric or utility facilities among the AEP Companies (any quantity, or number, or combination of such an "Asset" or "Assets" as the context dictates); and

**WHEREAS**, in order to obtain such operational efficiencies, the AEP Companies desire from time to time to loan, rent, share, or sell the Assets among themselves; and

**WHEREAS**, this Agreement would enable the AEP Companies to benefit from lower costs for their respective electric and utility facilities by maintaining a smaller inventory of Assets; and

**WHEREAS**, in the event that one of the AEP Companies suffers a failure of or unanticipated shortage of Assets, this Agreement would give such AEP Company access to replacement Assets much quicker than if it were required to run a competitive bidding process for such Assets or if it were required to obtain such Assets in the marketplace; and

**WHEREAS**, through their participation in this Agreement, each of the AEP Companies would benefit from substantial savings and the enhanced reliability of their respective electric or utility facilities; and

**WHEREAS**, since the mid-1980's, the AEP East Companies have participated in a program for sharing capitalized spare parts, materials, equipment, and supplies (including transmission, distribution and generation assets) among the individual AEP East Companies; and

**WHEREAS**, the AEP Companies desire to share the Assets among the individual AEP West Companies and between the individual AEP East Companies and the AEP West Companies in the same manner and for the same purpose as the existing program for sharing capitalized spare parts, materials, equipment, and supplies among the individual AEP East Companies; and

**WHEREAS**, for the reasons set forth above, this Agreement is in the public interest;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants, agreements and representations set forth herein, the Parties intending to be legally bound hereby agree as follows:

## **ARTICLE 1**

A. This Agreement applies to transactions among the AEP Companies (each individual AEP Company may be referred to individually as a “Party” or collectively, as the “Parties”), except this Agreement does not apply to transactions that are otherwise covered by the existing sharing agreements (i) among only the AEP East Companies and (ii) between individual AEP Companies, which shall remain in full force and effect.

B. Upon request by a Party (the “Receiving Party”) that requires Assets that another Party (the “Delivering Party”) holds in inventory and has no immediate need of, the Delivering Party agrees to make available, loan, rent, share, or sell such Assets to the Receiving Party under the terms and conditions set forth in this Agreement (the “Program”).

C. An asset that is replaced by an Asset will be repaired and refurbished, if possible and economically feasible, by the Receiving Party at its sole cost and expense as soon as practical, and such asset shall become an Asset of the Receiving Party. The Parties agree to provide and pay for services related to the Central Machine Shop under the same terms as those provided in the Central Machine Shop Agreement approved by the Virginia State Corporation Commission, as reflected in the Central Machine Shop Agreement dated January 1, 1979, including the Assignment of the CMS Agreement approved in Case No. PUE-2013-00103, and subsequent Commission-approved modifications or renewals of that agreement.

D. Each Party hereby grants to each other Party the right of ingress and egress to and from its facilities, equipment, and real property, both above and below ground, and such other rights of access and use as are reasonably necessary for each Party to perform its obligations and enjoy its rights under this Agreement, and to store and access Assets.

## **ARTICLE 2**

A. Costs related to Assets shared, rented, loaned, sold, or transferred hereunder shall be at book value, net of accumulated depreciation. Costs shall include all fully allocated costs of making the Assets available, including any shipping and delivery costs.

B. The facilities and real property licensed hereunder shall be licensed in conformity with the applicable law of the state where the facilities or real property are located. Each Party obtaining licensing rights herein to access and use such facilities and real property shall pay the Party granting the license hereunder its fully distributed costs without markup, including all direct and indirect costs which reasonably can be identified and related to the use of such facilities or real property. As soon as practicable, but not less than quarterly, the Parties shall mutually agree to an accounting of all costs to be reimbursed under this section.

### ARTICLE 3

A. Unless otherwise disclosed by the Delivering Party, the Delivering Party represents and warrants that, at the time of transfer, the Assets shall be capable of performing their intended function. If the Assets are not capable of performing their intended function and if any applicable manufacturer's warranty does not cover the defect, the Delivering Party shall at its election (i) repair or replace the affected Assets at its sole expense or (ii) refund the Receiving Party's payments and reacquire the Assets.

B. Except as expressly provided herein, each Receiving Party acknowledges that the Delivering Party has not made any representation, warranty or covenant with respect to merchantability, condition, quality, or durability of the Assets, or any other representation, warranty or covenant of any kind or character, expressed or implied, with respect to the Assets.

C. In no event shall a Party be liable to any other Party for any special, indirect, incidental, punitive, or consequential damages that may arise from its participation in the Program.

### ARTICLE 4

Costs allocated to a Receiving Party hereunder shall be billed by the Delivering Party within 30 days of the end of each month. All amounts billed under this Agreement shall be paid by the Receiving Party within 15 days after receipt of the invoice.

### ARTICLE 5

A Party may withdraw from this Agreement upon not less than 180 days written notice to the other Parties provided, however, that this Agreement shall continue in effect after such withdrawal with respect to those Parties that have not withdrawn. A Party may withdraw from this Agreement immediately with written notice if its performance hereunder conflicts with any applicable rule, regulation or order of a governmental entity having authority over such Party.

### ARTICLE 6

A. This Agreement shall not be effective with regard to Wheeling Power Company until any required approvals from the Public Service Commission of West Virginia are obtained. Wheeling Power Company shall provide a copy of such approving order to AEPSC. This provision shall not affect the obligations of any other Party hereto.

B. This Agreement shall not be effective with regard to Appalachian Power Company ("APCo") until any required approvals from the Virginia State Corporation Commission and the Public Service Commission of West Virginia are obtained. This provision shall not affect the obligations of any other Party hereto. APCo shall provide a copy of such approving orders to AEPSC.

C. To the extent any transactions under this Agreement would not satisfy the asymmetric pricing requirements applicable to affiliate transactions under Kentucky law, this Agreement shall not be effective with regard to Kentucky Power Company ("Kentucky Power")

until Kentucky Power obtains approval of a deviation from affiliate transaction requirements for its participation in this Agreement, to the extent such approval is required as to specific transactions. Kentucky Power shall provide a copy of any approving order to AEPSC. This provision shall not affect any transactions between Kentucky Power and any other AEP Company that satisfy the asymmetric pricing requirements applicable to affiliate transactions under Kentucky law. This provision shall not affect the obligations of any other Party hereto.

### ARTICLE 7

Other than the limitations described in Article 6 as to required approvals, this Agreement shall be effective with regard to covered transactions between or among any of the Parties, regardless of whether any of the other AEP Companies is or is not, at any given time, a Party to this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of May 13, 2021.

#### Appalachian Power Company

Name: Paul Chodak

Title: Executive Vice President Generation

#### Ohio Power Company

Name: Paul Chodak

Title: Executive Vice President Generation

#### Indiana Michigan Power Company

Name: Paul Chodak

Title: Executive Vice President Generation

#### Wheeling Power Company

Name: Paul Chodak

Title: Executive Vice President Generation

#### Kentucky Power Company

Name: Paul Chodak

Title: Executive Vice President Generation

#### Public Service Company of Oklahoma

Name: Paul Chodak

Title: Executive Vice President Generation

#### Kingsport Power Company

Name: Paul Chodak

Title: Executive Vice President Generation

#### Southwestern Electric Power Company

Name: Paul Chodak

Title: Executive Vice President Generation



**AEP Oklahoma Transmission Company,  
Inc.**

Name: \_\_\_\_\_

Title: Senior Vice President Transmission Field Services

**American Electric Power Service  
Corporation, as agent for AEP  
Companies**

Name: 

Title: Executive Vice President Generation

**AEP Oklahoma Transmission Company,  
Inc.**

Name: 

Title: Senior Vice President Transmission Field Services

**American Electric Power Service  
Corporation, as agent for AEP  
Companies**

Name: \_\_\_\_\_

Title: Executive Vice President Generation



Legal Department

American Electric Power  
1051 E Cary Street, Suite 1100  
Richmond, Virginia 23219  
AEP.com

May 25, 2021

**By Electronic Filing**

The Honorable Bernard J. Logan, Clerk  
State Corporation Commission  
Document Control Center  
1300 East Main Street, First Floor  
Richmond, Virginia 23219

**Noelle J. Coates**  
Senior Counsel - Regulatory  
Services  
(804) 698-5541 (P)  
(804) 698-5526 (F)  
njcoates@aep.com

**Re: Application of Appalachian Power Company  
for approval of an affiliate agreement  
pursuant to Chapter 4 of Title 56 of the Code of Virginia  
Case No. PUR-2021-00024**

Dear Mr. Logan:

Enclosed for filing in the above-referenced case is the executed Agreement that was approved by the Commission's March 23, 2021 Order Granting Approval.

Sincerely,

A handwritten signature in black ink, appearing to read "Noelle J. Coates", written in a cursive style.

Noelle J. Coates

Enclosure

cc: William H. Chambliss, Esq.  
Kiva Bland Pierce, Esq.  
C. Meade Browder, Jr., Esq.  
James G. Ritter, Esq.

Exhibit A

**AFFILIATED TRANSACTIONS AGREEMENT  
FOR SHARING TRANSMISSION ASSETS**

This Affiliated Transactions Agreement (the "Agreement") is made and entered into effective as of the 13 day of May, 2021, by and among (a) AEP Ohio Transmission Company, Inc., an Ohio corporation; AEP West Virginia Transmission Company, Inc. a West Virginia corporation; AEP Appalachian Transmission Company, Inc., a Virginia corporation, AEP Indiana Michigan Transmission Company, Inc., an Indiana corporation; and AEP Kentucky Transmission Company, Inc., a Kentucky corporation; (collectively referred to as 'AEP Transcos'); (b) Appalachian Power Company, a Virginia corporation; Wheeling Power Company, a West Virginia corporation; Indiana Michigan Power Company, an Indiana corporation; Kentucky Power Company, a Kentucky corporation; Kingsport Power Company, a Virginia corporation; Ohio Power Company, an Ohio corporation; (collectively referred to as 'AEP Operating Companies'); and (c) American Electric Power Service Corporation ('AEPSC') as agent for the AEP Transcos and AEP Operating Companies.

**WITNESSETH:**

**WHEREAS**, the AEP Operating Companies and the AEP Transcos (collectively, the "AEP East Companies") are affiliate companies in the American Electric Power Company system; and

**WHEREAS**, the AEP East Companies have determined that significant operational and cost efficiencies can be achieved by the loaning, rental, sharing, or sale of various materials equipment supplies, and capitalized spare parts that can be used in the construction, operation, or maintenance of electric transmission facilities among the AEP East Companies (any quantity, or number, or combination of such a "Transmission Asset" or "Transmission Assets", as the context dictates); and

**WHEREAS**, in order to obtain such operational efficiencies, the AEP East Companies desire from time to time to loan, rent, share, or sell the Transmission Assets among themselves; and

**WHEREAS**, this Agreement would enable the AEP East Companies to benefit from lower costs for their respective electric transmission facilities by maintaining a smaller inventory of Transmission Assets; and

**WHEREAS**, in the event that one of the AEP East Companies suffers a failure of or unanticipated shortage of Transmission Assets, this Agreement would give such AEP East Company access to replacement Transmission Assets much quicker than if it were required to run a competitive bidding process for such Transmission Assets or if it were required to obtain such Transmission Assets in the marketplace; and

**WHEREAS**, through their participation in this Agreement, each of the AEP East Companies would benefit from substantial savings and the enhanced reliability of their respective electric transmission facilities; and

**WHEREAS**, since the mid-1980's, the AEP Operating Companies have participated in a program for sharing capitalized spare parts, materials, equipment, and supplies (including transmission, distribution and generation assets) among the individual AEP Operating Companies; and

**WHEREAS**, the AEP East Companies desire to share the Transmission Assets among the individual AEP Transcos and between the individual AEP Operating Companies and the AEP Transcos in the same manner and for the same purpose as the existing program for sharing capitalized spare parts, materials, equipment, and supplies among the individual AEP Operating Companies; and

**WHEREAS**, for the reasons set forth above, this Agreement is in the public interest;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants, agreements and representations set forth herein, the Parties intending to be legally bound hereby agree as follows:

#### ARTICLE 1

A. This Agreement applies to transactions among the AEP East Companies (each individual AEP Operating Company and AEP Transco may be referred to individually as a "Party" or collectively, as the "Parties"). This Agreement does not apply to transactions that are otherwise covered by the existing sharing agreements (i) among only the AEP Operating Companies and (ii) between individual AEP Operating Companies and individual AEP Transcos which shall remain in full force and effect.

B. Upon request by a Party (the "Receiving Party") that requires Transmission Assets that another Party (the "Delivering Party") holds in inventory and has no immediate need of, the Delivering Party agrees to make available, loan, rent, share, or sell such Transmission Assets to the Receiving Party under the terms and conditions set forth in this Agreement (the "Program").

C. An asset that is replaced by a Transmission Asset will be repaired and refurbished, if possible and economically feasible, by the Receiving Party at its sole cost and expense as soon as practical, and such asset shall become a Transmission Asset of the Receiving Party.

D. Each Party hereby grants to each other Party the right of ingress and egress to and from its facilities, equipment, and real property, both above and below ground, and such other rights of access and use as are reasonably necessary for each Party to perform its obligations and enjoy its rights under this Agreement, and to store and access Transmission Assets.

#### ARTICLE 2

A. Costs related to Transmission Assets shared, rented, loaned, sold, or transferred hereunder shall be at book value, net of accumulated depreciation. Costs shall include all fully allocated costs of making the Transmission Assets available, including any shipping and delivery costs.

B. The facilities and real property licensed hereunder shall be licensed in conformity with the applicable law of the state where the facilities or real property are located. Each Party obtaining licensing rights herein to access and use such facilities and real property shall pay the Party granting the license hereunder its fully distributed costs without markup, including all direct and indirect costs which reasonably can be identified and related to the use of such facilities or real

property. As soon as practicable, but not less than quarterly, the Parties shall mutually agree to an accounting of all costs to be reimbursed under this section.

### ARTICLE 3

A. Unless otherwise disclosed by the Delivering Party, the Delivering Party represents and warrants that, at the time of transfer, the Transmission Assets shall be capable of performing their intended function. If the Transmission Assets are not capable of performing their intended function and if any applicable manufacturer's warranty does not cover the defect, the Delivering Party shall at its election (i) repair or replace the affected Transmission Assets at its sole expense or (ii) refund the Receiving Party's payments and reacquire the Transmission Assets.

B. Except as expressly provided herein, each Receiving Party acknowledges that the Delivering Party has not made any representation, warranty or covenant with respect to merchantability, condition, quality, or durability of the Transmission Assets, or any other representation, warranty or covenant of any kind or character, expressed or implied, with respect to the Transmission Assets.

C. In no event shall a Party be liable to any other Party for any special, indirect, incidental, punitive, or consequential damages that may arise from its participation in the Program.

### ARTICLE 4

Costs allocated to a Receiving Party hereunder shall be billed by the Delivering Party within 30 days of the end of each month. All amounts billed under this Agreement shall be paid by the Receiving Party within 15 days after receipt of the invoice.

### ARTICLE 5

A Party may withdraw from this Agreement upon not less than 180 days written notice to the other Parties provided, however, that this Agreement shall continue in effect after such withdrawal with respect to those Parties that have not withdrawn. This Agreement may be terminated by a Party without notice if its performance hereunder conflicts with any applicable rule, regulation or order of a governmental entity having authority over such Party.

### ARTICLE 6

A. This Agreement shall not be effective with regard to Indiana Michigan Power Company ("I&M") and AEP Indiana Michigan Transmission Company, Inc. ("IM Transco") until it is filed with the Indiana Utility Regulatory Commission. This Agreement shall not be effective with regard to transactions between I&M and IM Transco until the approval of this Agreement required by the Indiana Utility Regulatory Commission, if any, is obtained. I&M and IM Transco shall provide a copy of any such approving order to AEPSC. If this Agreement becomes effective as to transactions between I&M and IM Transco, the Agreement shall terminate as to such transactions on the fifth anniversary of the receipt of the regulatory approval to effectuate such transactions under this Agreement received from the Indiana Utility Regulatory Commission.

B. This Agreement shall not be effective with regard to transactions between Ohio Power Company ("Ohio Power") and AEP Ohio Transmission Company, Inc. ("Ohio Transco") until the approval of this Agreement required by the Ohio Public Utilities Commission, if any, is obtained. Ohio Power and Ohio Transco shall provide a copy of any such approving order to AEPSC. This provision shall not affect the obligations of any other Party hereto.

C. This Agreement shall not be effective with regard to Wheeling Power Company until any required approvals from the Public Service Commission of West Virginia are obtained. Wheeling Power Company shall provide a copy of such approving order to AEPSC. This provision shall not affect the obligations of any other Party hereto.

D. This Agreement shall not be effective with regard to AEP West Virginia Transmission Company, Inc. ("West Virginia Transco") until any required approvals from the Public Service Commission of West Virginia are obtained. West Virginia Transco shall provide a copy of such approving order to AEPSC. This provision shall not affect the obligations of any other Party hereto.

E. This Agreement shall not be effective with regard to Appalachian Power Company ("APCo") until any required approvals from the Virginia State Corporation Commission and the Public Service Commission of West Virginia are obtained. This provision shall not affect the obligations of any other Party hereto. APCo shall provide a copy of such approving orders to AEPSC.

F. To the extent any transactions under this agreement would not satisfy the asymmetric pricing requirements applicable to affiliate transactions under Kentucky law, this Agreement shall not be effective with regard to Kentucky Power Company ("Kentucky Power") until Kentucky Power obtains approval of a deviation from affiliate transaction requirements for its participation in this Agreement, to the extent such approval is required as to specific transactions. Kentucky Power shall provide a copy of any approving order to AEPSC. This provision shall not affect any transactions between Kentucky Power and any other AEP East Company that satisfy the asymmetric pricing requirements applicable to affiliate transactions under Kentucky law. This provision shall not affect the obligations of any other Party hereto.

## ARTICLE 7

Other than the limitations described in Article 6 as to required approvals, this Agreement shall be effective with regard to transactions between or among any of the Parties, regardless of whether any of the other AEP East Companies is or is not, at any given time, a Party to this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of May 13, 2021.

**AEP Appalachian Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Appalachian Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP Indiana Michigan Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Indiana Michigan Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP Kentucky Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Kentucky Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP Ohio Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Ohio Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP West Virginia Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Wheeling Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services



American Electric Power Service  
Corporation, as agent for AEP East  
Companies

Name:



Title: Senior Vice President Transmission Field Services

Exhibit A

**AFFILIATED TRANSACTIONS AGREEMENT  
FOR SHARING TRANSMISSION ASSETS**

This Affiliated Transactions Agreement (the "Agreement") is made and entered into effective as of the 13 day of May, 2021, by and among (a) AEP Ohio Transmission Company, Inc., an Ohio corporation; AEP West Virginia Transmission Company, Inc. a West Virginia corporation; AEP Appalachian Transmission Company, Inc., a Virginia corporation, AEP Indiana Michigan Transmission Company, Inc., an Indiana corporation; and AEP Kentucky Transmission Company, Inc., a Kentucky corporation; (collectively referred to as 'AEP Transcos'); (b) Appalachian Power Company, a Virginia corporation; Wheeling Power Company, a West Virginia corporation; Indiana Michigan Power Company, an Indiana corporation; Kentucky Power Company, a Kentucky corporation; Kingsport Power Company, a Virginia corporation; Ohio Power Company, an Ohio corporation; (collectively referred to as 'AEP Operating Companies'); and (c) American Electric Power Service Corporation ('AEPSC') as agent for the AEP Transcos and AEP Operating Companies.

**WITNESSETH:**

**WHEREAS**, the AEP Operating Companies and the AEP Transcos (collectively, the "AEP East Companies") are affiliate companies in the American Electric Power Company system; and

**WHEREAS**, the AEP East Companies have determined that significant operational and cost efficiencies can be achieved by the loaning, rental, sharing, or sale of various materials, equipment, supplies, and capitalized spare parts that can be used in the construction, operation, or maintenance of electric transmission facilities among the AEP East Companies (any quantity, or number, or combination of such a "Transmission Asset" or "Transmission Assets", as the context dictates); and

**WHEREAS**, in order to obtain such operational efficiencies, the AEP East Companies desire from time to time to loan, rent, share, or sell the Transmission Assets among themselves; and

**WHEREAS**, this Agreement would enable the AEP East Companies to benefit from lower costs for their respective electric transmission facilities by maintaining a smaller inventory of Transmission Assets; and

**WHEREAS**, in the event that one of the AEP East Companies suffers a failure of or unanticipated shortage of Transmission Assets, this Agreement would give such AEP East Company access to replacement Transmission Assets much quicker than if it were required to run a competitive bidding process for such Transmission Assets or if it were required to obtain such Transmission Assets in the marketplace; and

**WHEREAS**, through their participation in this Agreement, each of the AEP East Companies would benefit from substantial savings and the enhanced reliability of their respective electric transmission facilities; and

**WHEREAS**, since the mid-1980's, the AEP Operating Companies have participated in a program for sharing capitalized spare parts, materials, equipment, and supplies (including transmission, distribution and generation assets) among the individual AEP Operating Companies; and

**WHEREAS**, the AEP East Companies desire to share the Transmission Assets among the individual AEP Transcos and between the individual AEP Operating Companies and the AEP Transcos in the same manner and for the same purpose as the existing program for sharing capitalized spare parts, materials, equipment, and supplies among the individual AEP Operating Companies; and

**WHEREAS**, for the reasons set forth above, this Agreement is in the public interest;

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants, agreements and representations set forth herein, the Parties intending to be legally bound hereby agree as follows:

#### ARTICLE 1

A. This Agreement applies to transactions among the AEP East Companies (each individual AEP Operating Company and AEP Transco may be referred to individually as a "Party" or collectively, as the "Parties"). This Agreement does not apply to transactions that are otherwise covered by the existing sharing agreements (i) among only the AEP Operating Companies and (ii) between individual AEP Operating Companies and individual AEP Transcos which shall remain in full force and effect.

B. Upon request by a Party (the "Receiving Party") that requires Transmission Assets that another Party (the "Delivering Party") holds in inventory and has no immediate need of, the Delivering Party agrees to make available, loan, rent, share, or sell such Transmission Assets to the Receiving Party under the terms and conditions set forth in this Agreement (the "Program").

C. An asset that is replaced by a Transmission Asset will be repaired and refurbished, if possible and economically feasible, by the Receiving Party at its sole cost and expense as soon as practical, and such asset shall become a Transmission Asset of the Receiving Party.

D. Each Party hereby grants to each other Party the right of ingress and egress to and from its facilities, equipment, and real property, both above and below ground, and such other rights of access and use as are reasonably necessary for each Party to perform its obligations and enjoy its rights under this Agreement, and to store and access Transmission Assets.

#### ARTICLE 2

A. Costs related to Transmission Assets shared, rented, loaned, sold, or transferred hereunder shall be at book value, net of accumulated depreciation. Costs shall include all fully allocated costs of making the Transmission Assets available, including any shipping and delivery costs.

B. The facilities and real property licensed hereunder shall be licensed in conformity with the applicable law of the state where the facilities or real property are located. Each Party obtaining licensing rights herein to access and use such facilities and real property shall pay the Party granting the license hereunder its fully distributed costs without markup, including all direct and indirect costs which reasonably can be identified and related to the use of such facilities or real

property. As soon as practicable, but not less than quarterly, the Parties shall mutually agree to an accounting of all costs to be reimbursed under this section.

### ARTICLE 3

A. Unless otherwise disclosed by the Delivering Party, the Delivering Party represents and warrants that, at the time of transfer, the Transmission Assets shall be capable of performing their intended function. If the Transmission Assets are not capable of performing their intended function and if any applicable manufacturer's warranty does not cover the defect, the Delivering Party shall at its election (i) repair or replace the affected Transmission Assets at its sole expense or (ii) refund the Receiving Party's payments and reacquire the Transmission Assets.

B. Except as expressly provided herein, each Receiving Party acknowledges that the Delivering Party has not made any representation, warranty or covenant with respect to merchantability, condition, quality, or durability of the Transmission Assets, or any other representation, warranty or covenant of any kind or character, expressed or implied, with respect to the Transmission Assets.

C. In no event shall a Party be liable to any other Party for any special, indirect, incidental, punitive, or consequential damages that may arise from its participation in the Program.

### ARTICLE 4

Costs allocated to a Receiving Party hereunder shall be billed by the Delivering Party within 30 days of the end of each month. All amounts billed under this Agreement shall be paid by the Receiving Party within 15 days after receipt of the invoice.

### ARTICLE 5

A Party may withdraw from this Agreement upon not less than 180 days written notice to the other Parties provided, however, that this Agreement shall continue in effect after such withdrawal with respect to those Parties that have not withdrawn. This Agreement may be terminated by a Party without notice if its performance hereunder conflicts with any applicable rule, regulation or order of a governmental entity having authority over such Party.

### ARTICLE 6

A. This Agreement shall not be effective with regard to Indiana Michigan Power Company ("I&M") and AEP Indiana Michigan Transmission Company, Inc. ("IM Transco") until it is filed with the Indiana Utility Regulatory Commission. This Agreement shall not be effective with regard to transactions between I&M and IM Transco until the approval of this Agreement required by the Indiana Utility Regulatory Commission, if any, is obtained. I&M and IM Transco shall provide a copy of any such approving order to AEPSC. If this Agreement becomes effective as to transactions between I&M and IM Transco, the Agreement shall terminate as to such transactions on the fifth anniversary of the receipt of the regulatory approval to effectuate such transactions under this Agreement received from the Indiana Utility Regulatory Commission.

B. This Agreement shall not be effective with regard to transactions between Ohio Power Company ("Ohio Power") and AEP Ohio Transmission Company, Inc. ("Ohio Transco") until the approval of this Agreement required by the Ohio Public Utilities Commission, if any, is obtained. Ohio Power and Ohio Transco shall provide a copy of any such approving order to AEPSC. This provision shall not affect the obligations of any other Party hereto.

C. This Agreement shall not be effective with regard to Wheeling Power Company until any required approvals from the Public Service Commission of West Virginia are obtained. Wheeling Power Company shall provide a copy of such approving order to AEPSC. This provision shall not affect the obligations of any other Party hereto.

D. This Agreement shall not be effective with regard to AEP West Virginia Transmission Company, Inc. ("West Virginia Transco") until any required approvals from the Public Service Commission of West Virginia are obtained. West Virginia Transco shall provide a copy of such approving order to AEPSC. This provision shall not affect the obligations of any other Party hereto.

E. This Agreement shall not be effective with regard to Appalachian Power Company ("APCo") until any required approvals from the Virginia State Corporation Commission and the Public Service Commission of West Virginia are obtained. This provision shall not affect the obligations of any other Party hereto. APCo shall provide a copy of such approving orders to AEPSC.

F. To the extent any transactions under this agreement would not satisfy the asymmetric pricing requirements applicable to affiliate transactions under Kentucky law, this Agreement shall not be effective with regard to Kentucky Power Company ("Kentucky Power") until Kentucky Power obtains approval of a deviation from affiliate transaction requirements for its participation in this Agreement, to the extent such approval is required as to specific transactions. Kentucky Power shall provide a copy of any approving order to AEPSC. This provision shall not affect any transactions between Kentucky Power and any other AEP East Company that satisfy the asymmetric pricing requirements applicable to affiliate transactions under Kentucky law. This provision shall not affect the obligations of any other Party hereto.

## ARTICLE 7

Other than the limitations described in Article 6 as to required approvals, this Agreement shall be effective with regard to transactions between or among any of the Parties, regardless of whether any of the other AEP East Companies is or is not, at any given time, a Party to this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be executed as of May 13, 2021.

**AEP Appalachian Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Appalachian Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP Indiana Michigan Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Indiana Michigan Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP Kentucky Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Kentucky Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP Ohio Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Ohio Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**AEP West Virginia Transmission Company, Inc.**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**Wheeling Power Company**

Name: [Signature]  
Title: Senior Vice President Transmission Field Services

**American Electric Power Service  
Corporation, as agent for AEP East  
Companies**

Name:



Title: Senior Vice President Transmission Field Services

(cont.)

BARGE TRANSPORTATION AGREEMENT

THIS AGREEMENT, dated as of the 1st day of May, 1986 (the "Agreement"), among Appalachian Power Company, a Virginia corporation (APCo), Ohio Power Company, an Ohio corporation (OPCo), AEP Generating Company, an Ohio corporation (AEPGC) and such other direct or indirect subsidiary company of American Electric Power Company, Inc. as shall become a party hereto with the consent of the above parties by executing and delivering to such parties a counterpart of this Agreement (collectively the Shippers and individually a Shipper) and Indiana & Michigan Electric Company, an Indiana corporation (I&MECo),

WITNESSETH THAT:

WHEREAS, since September 4, 1973, the River Transportation Division of I&MECo (the Division) has operated towboats, barges and other facilities for the transportation of coal on the Kanawha, Green and Ohio Rivers and other navigable waterways to coal-fired steam electric generating stations of APCo, OPCo, AEPGC and I&MECo, which stations require large quantities of coal which can be delivered to such stations in river barges; and

WHEREAS, Shippers desire the Division to continue transportation of coal in barges to their coal unloading docks and are willing to contract with the Division for the transportation of coal during the term of this Agreement, at the prices,



and upon the other terms and conditions hereinafter set forth;  
and

WHEREAS, the Division desires to continue transporting coal in barges to coal unloading docks of Shippers and is willing to contract with Shippers for the transportation of coal for Shippers during the term of this Agreement, at the prices, and upon the other terms and conditions hereinafter set forth (which are essentially the same as the terms and conditions under which coal transportation services have been provided to Shippers by the Division for a number of years);

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements of the parties hereto as herein stated, each Shipper hereby severally agrees to furnish and deliver coal or cause coal to be furnished and delivered to the Division at loading points on the Ohio, Kanawha or Green Rivers, or their navigable tributaries and to accept delivery of such coal at designated delivery points and pay for the services of the Division in receiving, transporting and delivering such coal, and the Division hereby agrees to receive, transport and deliver such coal in barges from such loading points to such designated delivery points during the term of this Agreement, at the prices, and upon the other terms and conditions hereinafter set forth.

ARTICLE I

TERM

The term of this Agreement shall continue as to each Shipper until terminated by such Shipper by delivery of written

notices to the Division not less than six months prior to the date of termination specified in such written notice.

## ARTICLE II

### RECEIPT AND TRANSPORTATION OF COAL

Section 1. Subject to the provisions of this Agreement, the Division shall receive, transport and deliver for each Shipper such quantities of coal as such Shipper shall specify from time to time on reasonable notice to the Division.

Section 2. The obligations of the Division to any Shipper set forth in Section 1 of this Article II shall be subject to I&MECo's reasonable requirements for transportation of coal for use in I&MECo's generating stations or for transportation of coal for use in generating stations of other Shippers or other direct or indirect subsidiary companies of American Electric Power Company, Inc.

Section 3. During the term of this Agreement each Shipper shall by written notice to the Division designate loading points (the "Loading Points") and delivery points (the "Delivery Points") on the Ohio, Green or Kanawha Rivers or their navigable tributaries.

## ARTICLE III

### LOADING AND UNLOADING OF COAL

The loading of coal into the Division's barges at the Loading Points and the unloading of such coal from the Division's

barges at the Delivery Points shall be performed by each Shipper or its coal suppliers with its or their facilities in a workman-like manner to a draft specified by the Division.

#### ARTICLE IV

##### DIVISION'S AFFIRMATIVE COVENANTS CONCERNING TRANSPORTATION EQUIPMENT

The Division shall at all times provide a sufficient number of barges, maintained in a good and seaworthy condition, and adequate motive power to enable it to carry out its obligations under this Agreement without delay and in a workmanlike manner, shall conform to the best accepted practice for the movement of bulk commodities by barge on inland waterways, and shall comply with all laws relating to the use and operation of vessels on inland waterways. All empty barges shall be delivered to the Loading Points free of foreign matter.

#### ARTICLE V

##### PRICE

The Division shall charge to each Shipper, and each Shipper shall pay to the Division, the costs of any transportation services performed by the Division for such Shipper. Such costs shall consist of all charges and expenses directly attributable to the performance of such service, a fair and equitable allocation of other charges and expenses of the Division (taking into account the transportation services performed by the Divi-

sion for I&MECo), a provision for taxes at the combined normal tax and surtax rate applicable to corporations under Section 11 or any successor section of the Internal Revenue Code of 1954, as in effect from time to time, and an amount equal to 9.21% per annum of I&MECo's net investment in the Division. The determination of the 9.21% composite rate is shown in Appendix B. The Division will use the 9.21% composite after tax rate of return on its net investment until such time as it receives approval from the Public Service Commission of West Virginia and/or The Virginia State Corporation Commission, if necessary, to adjust the return on common equity on January 1 of each calendar year to the rate of return on common equity determined and allowed by the FERC in the most recent wholesale rate proceeding involving I&MECo. In the absence of a FERC order during the calendar year preceding each January 1, the rate of return on common equity would be that authorized by the Public Service Commission of Indiana in an I&MECo retail electric rate proceeding, during the calendar year preceding such January 1, otherwise the existing rate of return continues until the next January 1. For purposes of this Agreement, I&MECo's net investment in the Division during any period shall be understood to consist of its investment in real and personal property and an amount equal to 1/8 of the aggregate operation, maintenance, rental and general expenses of the Division for each annual period, plus prepayments and deferred expenses at the end of such period. If for any period the aggregate charges of the Division for transportation services

performed do not equal the aggregate costs of performing such services, a prospective adjustment in rates will be made. A review of the need for such prospective adjustments shall be undertaken at least annually.

Demurrage and standby charges shall be assessed as provided in Appendix A hereto.

## ARTICLE VI

### CONDITIONS

#### Section 1. Billing and Payment.

On or before the fifteenth day of each calendar month, the Division shall render to each Shipper an invoice for all coal, if any, transported hereunder during the preceding calendar month. Each Shipper shall pay the Division by cash or check, in United States funds, the net amount of the invoice prior to the end of the month in which an invoice is received.

Each invoice shall show, inter alia, the quantity of coal transported hereunder during the preceding calendar month, the applicable prices therefor, and any debts or credits due.

#### Section 2. Weights.

To enable the Division to prepare invoices, each Shipper shall, promptly after the end of each calendar month, advise the Division as to the weights of the coal transported for such Shipper during that month either as loaded and weighed at Loading Points or as unloaded and weighed at the plant of the Shipper. The Division shall have the right at all reasonable times to review and audit the weights.

Section 3. Records and Audits.

The Division shall keep accurate and satisfactory records and books of accounts showing all costs, payments, price revisions, credits, debits and all other data required for the purposes of this Agreement. Each Shipper shall have the right at any time, upon written notice to the Division, to examine the Division's records and books of accounts for the purpose of verifying the data used or to be used in determining the price paid or payable by such Shipper.

Section 4. Insurance.

It is understood that title to coal will remain in each respective Shipper. Each Shipper shall, at its own expense, carry and maintain cargo insurance, with waiver of subrogation against the Division, on the coal transported hereunder; and to the extent appropriate, each Shipper shall also, at its own expense, carry and maintain Longshoremen's and Harbor Workers' Compensation Act insurance covering its employees at its docks.

The Division shall, at its own expense, carry and maintain full marine coverage, with waiver of subrogation against any Shipper, including Hull, Collision, and Protection and Indemnity insurance or other insurance covering the liability of the vessels and their owners against loss of life and personal injury to members of their crews, including transportation, wages, maintenance and care.

Section 5. Force Majeure.

If, because of force majeure, either party hereto is unable to carry out any of its obligations under this Agreement, and if such party promptly gives to the other party hereto written notice of such force majeure, then the obligations of the party giving such notice shall be suspended to the extent made necessary by such force majeure and during its continuance, provided the effect of such force majeure is eliminated insofar as possible with all reasonable dispatch.

The term "force majeure" as used herein shall mean any causes beyond the control and without fault or negligence of the party affected thereby, such as acts of God, acts of the public enemy, insurrections, riots, strikes, labor disputes, labor or materials shortages, fires, explosions, floods, breakdowns of or damage to plants, equipment or facilities (including emergency outages of equipment or facilities to make repairs to avoid breakdowns thereof or damages thereto), interruptions to transportation, river freeze-ups, embargoes, orders or acts of civil or military authority, or other causes of a similar nature which wholly or partly prevent the mining, delivery and/or loading of the coal by any Shipper or any coal suppliers thereto, or the receiving, transporting and/or delivery of the coal by the Division, or the accepting, utilizing and/or unloading of the coal by any Shipper.

Section 6. Notices.

All notices under this Agreement shall be in writing; and if to any Shipper, shall be sufficient in all respects if delivered in person to its President or Vice President or sent by registered mail addressed to such Shipper at its address set forth at the foot of this Agreement, or at any subsequent address of which such Shipper may notify the Division in writing; and if to the Division, shall be sufficient in all respects if sent by registered mail addressed to the Division at P. O. Box 700, Lancaster, Ohio, 43130, or at any subsequent address of which the Division may notify the Shipper in writing.

Section 7. Waivers and Remedies.

The failure of any party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights, but the same shall continue and remain in full force and effect.

All remedies afforded under this Agreement shall be taken and construed as cumulative and in addition to every other remedy provided for herein or by law.

No default by any party to this Agreement in the performance of any of its covenants or obligations hereunder, which except for this provision would be the legal basis for rescission or termination of this Agreement by any other party hereto, shall give or result in such a right unless and until the



party committing such default shall fail to correct the default within thirty (30) days after written notice of claim of such default is given to such defaulting party by the party claiming such default.

Section 8. Successors and Assigns.

This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns; but this Agreement may not be assigned by either party without the written consent of the other, except that any party may, without the consent of any other party, assign this Agreement to a successor to all or substantially all of its property and assets who shall assume the obligations of the assigning party hereunder and to any direct or indirect subsidiary company of American Electric Power Company, Inc.

Section 9. Regulatory Approvals.

The performance of the obligations of each party hereto shall be subject to the receipt and continued effectiveness of all authorizations of governmental regulatory authorities necessary at the time to permit such party to perform its duties and obligations hereunder. In the event that the performance by any Shipper shall not be authorized by all governmental regulatory authorities whose authorization is necessary for such performance, or in the event that any such authorization once given, shall be revoked or withdrawn, then this Agreement shall not become effective, or shall cease to be effective, as the case may

be, as to such Shipper, but such ineffectiveness shall not affect the obligations of any other party hereto.

Section 10. Further Agreements.

I&MECo and any Shipper, may enter into a further agreement or agreements setting forth detailed terms and provisions relating to the performance by I&MECo and such Shipper of their respective obligations hereunder. No agreement entered into pursuant to this Section 10 shall, however, alter to any material degree the obligations of any party to this Agreement in any manner inconsistent with any of the foregoing sections of this Agreement.

IN WITNESS WHEREOF, the parties have caused this Agreement to be signed by their respective authorized officers as of the day and year first above written.

OHIO POWER COMPANY  
301 Cleveland Avenue, S.W.  
Canton, Ohio 44701

APPALACHIAN POWER COMPANY  
40 Franklin Road, S.W.  
Roanoke, Virginia 24011

By /s/ Lawrence R. Hoover  
Vice President

By /s/ J. W. Vaughan  
President

INDIANA & MICHIGAN ELECTRIC  
COMPANY  
One Summit Square  
Fort Wayne, Indiana 46801

AEP GENERATING COMPANY  
1 Riverside Plaza  
Columbus, Ohio 43215

By /s/ W. A. Black  
President

By /s/ G. P. Maloney  
Vice President

AMENDMENT NO. 2  
TO  
BARGE TRANSPORTATION AGREEMENT

THIS AMENDMENT NO. 2 TO the BARGE TRANSPORTATION AGREEMENT (this "**Amendment 2**") is entered into by and between **Appalachian Power Company** ("APCo"), **Ohio Power Company** ("OPCo"), **Kentucky Power Company** ("KPCo"), and **AEP Generating Company** ("AEPGC") (collectively, the "**Shippers**") and **Indian Michigan Power Company** ("I&M") (collectively with the Shippers, the "**Parties**"), effective as of May 9, 2019. All capitalized terms used herein and not otherwise defined shall have the meaning set forth in the Agreement (as defined below).

RECITALS

- A. **WHEREAS**, the Parties entered into that certain Barge Transportation Agreement (the "**Agreement**") dated May 1, 1986, pursuant to which I&M agreed to transport coal on the Kanawha and Ohio Rivers, and other navigable waterways, to coal-fired steam electric generating stations of APCo, OPCo, AEPGC, and I&M subject to the terms and conditions therein.
- B. **WHEREAS**, the Parties entered into that certain amendment to the Agreement ("**Amendment 1**") dated September 12, 2013, pursuant to which, among other things, KPCo became a party to the Agreement.
- C. **WHEREAS**, the Parties have agreed to amend Amendment 1, for the purpose of eliminating the automatic termination provision specific to APCo and thereby confirm that the Agreement remains effective as to APCo, subject to any governmental regulatory approval required for its continued participation in this Agreement.

**NOW, THEREFORE**, in consideration of the mutual agreements contained in this Amendment 2 and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agree as follows:

Amendment 1 shall be amended as follows:

1. Paragraph 7 is hereby deleted in its entirety and restated as follows:

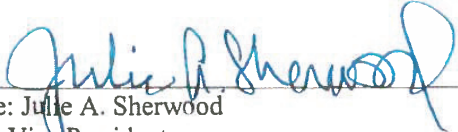
This Amendment No. 1 shall not become effective as to APCo until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Agreement. This provision shall not affect the obligations of any other party hereto.

2. The terms of the Agreement and Amendment 1 remain in full force and effect except as modified herein.

3. Miscellaneous. This Amendment 2, together with the Agreement and Amendment 1, constitutes the entire agreement concerning the subject matter hereof and all prior or contemporaneous understandings, oral representations or agreements had among the Parties with respect to the subject matter hereof are merged in, and are contained in this Amendment 2. This Amendment 2 shall inure to the benefit of and shall be binding upon the Parties hereto and their respective heirs, successors and assigns. This Amendment 2 may be executed in one or more counterparts delivered electronically, each of which shall constitute an original and together one and the same instrument. Each party executing this Amendment 2 represents that such party has full authority and legal power to do so.

Executed and delivered under seal as of the day and year first above written.


AEP GENERATING COMPANY:

By:   
Name: Julie A. Sherwood  
Title: Vice President

OHIO POWER COMPANY:

By:   
Name: Lisa M. Barton  
Title: Vice President

INDIANA MICHIGAN POWER COMPANY:

By:   
Name: Lisa M. Barton  
Title: Vice President

KENTUCKY POWER COMPANY:

By:   
Name: Lisa M. Barton  
Title: Vice President

APPALACHIAN POWER COMPANY:

By:   
Name: Lisa M. Barton  
Title: Vice President

## **AMENDMENT NO. 1 TO BARGE TRANSPORTATION AGREEMENT**

This Amendment No. 1 to Barge Transportation Agreement ("**Amendment No. 1**") is entered into by and among **Appalachian Power Company ("APCo")**, **Ohio Power Company (OPCo)**, **Kentucky Power Company ("KPCo")** and **AEP Generating Company ("AEPGC")** (collectively the "**Shippers**" and individually a "**Shipper**") and **Indiana Michigan Power Company** (formerly **Indiana & Michigan Electric Company**), an Indiana corporation ("**I&M**") effective as of the 12<sup>th</sup> day of September, 2013 (the "**Effective Date**").

**WHEREAS**, APCo, OPCo, AEPGC and I&M entered into that certain Barge Transportation Agreement dated May 1, 1986 (the "**Barge Transportation Agreement**") pursuant to which I&M transports coal on the Kanawha and Ohio Rivers, and other navigable waterways, to coal-fired steam electric generating stations of APCo, OPCo, AEPGC and I&M.

**WHEREAS**, APCo, OPCo, AEPGC and I&M desire to amend the Barge Transportation Agreement as hereinafter provided.

**WHEREAS**, KPCo desires to become a party to the Barge Transportation Agreement.

**NOW, THEREFORE**, in consideration of the foregoing and the covenants and agreements of the Parties hereto as herein stated, the APCo, OPCo, AEPGC and I&M agree to amend the Barge Transportation Agreement as hereinafter set forth and consent to KPCo becoming a party to the Barge Transportation Agreement as amended by this Amendment No. 1.

1. **ARTICLE V PRICE** is hereby deleted in its entirety and replaced with the following:

### **ARTICLE V PRICE**

a. At the end of each month the Division shall invoice each Shipper for coal transportation and unloading and loading services (the "**River Transportation Services**") provided to Shipper by the Division during such month. The fee for River Transportation Services (the "**River Transportation Services Fee**") shall consist of the Division's annual estimate of its fully loaded cost to perform the River Transportation Services on a per ton basis which shall include an after-tax carrying charge equal to I&M's return on equity set by the Indiana Utility Regulatory Commission on the Division's investment in the assets utilized by it to perform the River Transportation Services and determined in accordance with Appendix A attached hereto, and an adder for income taxes at the prevailing statutory rate. The River Transportation Services Fee shall be revised from time to time by the Division to reflect its estimated fully loaded cost to perform the River Transportation Services and to reflect any changes in I&M's return on equity. Shippers shall provide the Division annually with a reasonably detailed forecast of its requirements for River Transportation Services to assist in the Division's computation of the River Transportation Services Fee.

b. Within sixty (60) days after the end of each calendar quarter year, the Division shall perform a true-up of the River Transportation Services Fees paid by Shippers during such calendar quarter (each a "True-Up Quarter") against the actual costs incurred by the Division to perform such River Transportation Services. If the aggregate River Transportation Services Fees payable or paid by a Shipper during a True-Up Quarter exceeds the actual costs incurred by the Division to perform the River Transportation Services during such True-UP Quarter, the difference shall be credited to the Shipper's account and applied against subsequent Shipper invoices. If the aggregate River Transportation Services Fees payable or paid by a Shipper during a True-Up Quarter is less than the actual costs incurred by the Division to perform the River Transportation Services during such True-UP Quarter, the difference shall be paid by Shipper when Shipper is invoiced for such difference.

c. Free time for each barge trip undertaken by the Division for a Shipper shall include three free days and Sundays and Holidays.

d. The Division shall issue Shipper a credit for each day that a barge is unloaded in less than the Shipper's allotted free time and debit Shipper for each day that a barge is unloaded after Shipper's allotted free time. Aggregate Shipper credits shall be applied against aggregate Shipper debits monthly and will be settled by the Division at the end of each month. Shipper credits are not refundable and will not be carried over from month to month. Shipper credits and debits will be calculated using 1/100<sup>th</sup> of a day.

e. The jumbo demurrage rate is \$100 per day per barge. Demurrage will be billed on actual unload times using 1/100<sup>th</sup> of a day.

2. The second sentence of Section 1 of Article VI is hereby deleted and replaced with the following sentence: "Each Shipper shall settle its invoiced River Transportation Services Fee though the AEP money pool within thirty (30) days following receipt of each invoice."

3. The Division's notice address in Section 7 of Article VI is hereby changed to 16150 Main Circle Drive, Suite 400, Chesterfield, MO 63017.

4. Appendix A to the Barge Transportation Agreement is hereby deleted in its entirety and replaced with Appendix A attached hereto.

5. APCo, OPCo, AEPGC and I&M each consent to KPCo becoming a party to the Barge Transportation Agreement, as amended by this Amendment No. 1.

6. KPCo agrees that it shall become a party to the Barge Transportation Agreement, as amended by this Amendment No. 1, upon its execution of this Amendment No. 1 and further agrees to abide by all of the terms and conditions of the Barge Transportation Agreement.

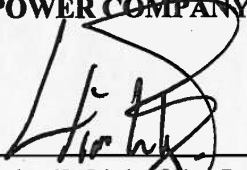
7. This Amendment No. 1 shall not become effective as to APCo until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Agreement. This provision shall not affect the obligations of any other party hereto. If this Amendment No. 1 becomes effective as to APCo, it shall terminate as to APCo on the fifth anniversary of its receipt any regulatory approvals.

8. Pursuant to IC 8-1-2-49(g), this Amendment No. 1 shall not become effective as to I&M until it has been filed with the Indiana Utility Regulatory Commission.

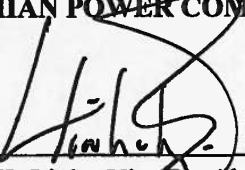
9. Except as specifically set forth herein, the Barge Transportation Agreement, a copy of which is attached, shall remain in full force and effect without amendment or modification.

Executed as of the Effective Date.

**OHIO POWER COMPANY**

By:  \_\_\_\_\_ ROR  
Timothy K. Light, Vice President

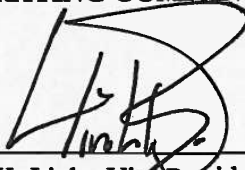
**APPALACHIAN POWER COMPANY**

By:  \_\_\_\_\_ ROR  
Timothy K. Light, Vice President

**INDIANA MICHIGAN POWER  
COMPANY**

By:  \_\_\_\_\_ ROR  
Timothy K. Light, Vice President

**AEP GENERATING COMPANY**

By:  \_\_\_\_\_ ROR  
Timothy K. Light, Vice President

**KENTUCKY POWER COMPANY**

By:  \_\_\_\_\_ ROR  
Timothy K. Light, Vice President



Appendix A

Component		Capitalization @12/31/XX (000)	Percent of Total	Annual Cost		After-Tax Rate of Return	Before-Tax	
							Weighted Percent	In Dollars
Long Term Debt	A	1,532,198	45.97 %	5.70%	C	2.82 %	2.82 %	762,485
Preferred Stock		0	0.00 %	0.00%	C	0.00 %	0.00 %	0
Common Stock	B	1,801,131	54.03 %	10.20%	D	5.51 %	8.48 %	2,486,517
<b>Total</b>		<b>3,333,329</b>	<b>100.00 %</b>			<b>8.13 %</b>	<b>11.10 %</b>	<b>3,228,981</b> E

The amounts above are examples and should be updated as specified below.

A) Includes long term debt due in one year and is net of unamortized debt premium and discount, unamortized debt expense and losses on re-acquired debt. It excludes spent nuclear fuel disposal costs. This figure should be updated annually using actual data from the I&M General Ledger.

B) Common equity includes premium on preferred stock and excludes undistributed subsidiary earnings. This figure should be updated annually using actual data from the I&M General Ledger.

C) Annual cost of Long-Term Debt is updated annually using actual data from the I&M General Ledger.

D) Based on I&M return on equity in effect as determined by the Indiana Utility Regulatory Commission from time to time (e.g. upon resolution of a base rate case, etc.)

E) Includes FIT adder (i.e. "gross-up") calculated at the prevailing statutory tax rate (currently 35%).

SA-8

CENTRAL MACHINE SHOP  
AGREEMENT

THIS AGREEMENT, dated as of January 1, 1979, between Appalachian Power Company, a Virginia corporation, and each of the undersigned companies,

WITNESSETH THAT:

WHEREAS, the undersigned companies are all affiliated with American Electric Power Company, Inc.; and

WHEREAS, the undersigned companies require shop services on a regular basis in connection with the operation of their electric generating plants and other facilities; and

WHEREAS, repair shops capable of providing regular repair and emergency service to the undersigned companies would reduce the cost, minimize downtime, and increase the effectiveness of such service to each of the undersigned companies; and

WHEREAS, Appalachian Power Company presently maintains two shops, one designated the Central Machine Shop, adjacent to the John E. Amos Plant in Putnam County, West Virginia, and the other at the Park Corporation Ordinance Center in South Charleston, West Virginia, which are capable of rendering such service;

NOW THEREFORE, in consideration of the premises and for the purposes hereinabove recited, and in consideration of the mutual covenants hereinafter contained, the parties agree as follows:

1. Appalachian Power Company will operate the Central Machine Shop located at the John E. Amos Plant, Putnam County, West Virginia, and the repair shop at the Park Corporation Ordinance Center in South Charleston, West Virginia, or such other repair shops as may from time to time be necessary or desirable (any and all of such repair shops being hereinafter referred to collectively as the "Repair Shops"), as repair shops for its own use and that of all the undersigned companies.
2. Repair Shops will provide regular repair and emergency service at the request of any of the undersigned companies; however, work affecting generating capacity will have precedence. Emergencies will receive priority.
3. All services performed by the Repair Shops will be rendered at cost, including a proportionate allocation of all overhead and indirect costs. Allocation of all overhead and indirect costs will be made as set forth in paragraph 5 below.

4. The companies receiving services from the Repair Shops will be billed monthly for such services.

5. Shop Overheads Subject to Fixed Billing - The undersigned companies are designated alternatively as primary users or non-primary users. The primary users will share in the fixed overhead costs on the basis of the proportion of their respective electric generating capabilities, whether or not work is performed on their behalf. Fixed overhead costs are those leasing/ownership costs which remain more or less constant, regardless of the level of activity by the Repair Shops. The non-primary users will share in the fixed overhead costs on the basis of the percentage of the direct labor performed on their behalf. The net amount of fixed overhead costs allocated among the primary users therefore depends upon the proportion of time spent on work for the non-primary users.

Shop Overheads Subject to Job Loading - All primary users and non-primary users will share in the job loading overhead costs on the basis of the percentage of the direct labor performed on their behalf. Job loading overhead costs are those managerial, supervisory and other indirect costs which are not chargeable directly to the billing job orders.

6. This Agreement shall remain in force until such time as the parties mutually agree in writing to cancel it, and each party contracting with Appalachian Power Company hereunder shall have the right to reach an agreement as to cancellation with Appalachian Power Company individually, but, in such case, the Agreement will remain in force among the remaining parties.

7. This Agreement may be amended from time to time to include additional companies affiliated with American Electric Power Company, Inc.

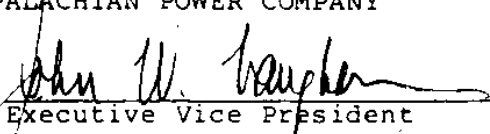
8. This Agreement is subject to the regulatory authority of any State or Federal agency having jurisdiction.

9. This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns, but this Agreement may not be assigned by Appalachian Power Company without the prior written consent of each of the other contracting parties, nor by any of the latter without the prior written consent of Appalachian Power Company, which consent shall not be unreasonably withheld.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by the undersigned thereunto duly authorized as of the date first above written.

Primary Users:

APPALACHIAN POWER COMPANY

By   
Executive Vice President

OHIO POWER COMPANY

By Ca. Haller  
Executive Vice President

OHIO ELECTRIC COMPANY

By Ca. Haller  
Executive Vice President

KENTUCKY POWER COMPANY

By Robert E. Matthews  
Executive Vice President

INDIANA & MICHIGAN ELECTRIC COMPANY

By William A. Black  
Executive Vice President

INDIANA & MICHIGAN POWER COMPANY

By William A. Black  
Executive Vice President

CARDINAL OPERATING COMPANY

By Frank N. Pini  
Vice President

KANAWHA VALLEY POWER COMPANY

By Sperry  
Vice President

Non-Primary Users:

OHIO VALLEY ELECTRIC CORPORATION

By Paul D. Decker  
Senior Vice President

INDIANA-KENTUCKY ELECTRIC CORPORATION

By Paul D. Decker  
Senior Vice President

Execution Version

**ASSIGNMENT OF CENTRAL MACHINE SHOP AGREEMENT**  
**DATED JANUARY 1, 1979**

This Assignment of the Central Machine Shop Agreement dated January 1, 1979 (the "Agreement") is made and entered into effective as of the 1<sup>st</sup> day of January, 2014, by Ohio Power Company, an Ohio corporation, as assignor ("Assignor"), to AEP Generation Resources Inc., a Delaware corporation, as assignee ("Assignee"). Appalachian Power Company, a Virginia corporation, is a party to this Assignment for the purpose of giving its consent thereto.

**WITNESSETH**

**WHEREAS**, Appalachian Power Company operates one or more central machine shops for the purpose of providing regular repair and emergency services to various operating companies of the American Electric Power System, including Assignor; and

**WHEREAS**, effective December 31, 2013, Assignor will transfer to Assignee numerous electric generating units; and

**WHEREAS**, following such transfer, Assignor will no longer require the services of a machine shop for the purpose of maintaining electric generating equipment; and

**WHEREAS**, Assignee desires to replace Assignor as a party to the Agreement so that it may receive the benefits of such Agreement, including reduced costs, minimized downtime, and increased efficiencies; and

**WHEREAS**, Appalachian Power Company, as the operator of the machine shop(s), believes that such an Assignment is for the benefit of all of the parties to the Agreement, as the costs of maintaining the shop(s) are spread among more parties which own electric generating units, some of which are similar in size and design.

**NOW, THEREFORE**, in consideration of the premises and the mutual covenants, agreements and representations set forth herein, the parties intending to be legally bound hereby agree as follows:

**Article 1**  
**ASSIGNMENT**

A. Effective January 1, 2014, Assignor assigns its interest in the Central Machine Shop Agreement dated January 1, 1979, to Assignee. Upon such assignment, Assignor shall be

relieved of any and all further obligations under the Agreement, and Assignee shall receive all benefits and bear all obligations previously belonging to Assignor. The obligation to pay for services performed for Assignor prior to January 1, 2014 but not yet paid on January 1, 2014 shall be borne by Assignee.


**Article 2**  
**CONSENT**

A. Appalachian Power Company consents to this Assignment.

IN WITNESS WHEREOF, the Parties have caused this Assignment to be executed effective as of January 1, 2014.


**OHIO POWER COMPANY**

By: \_\_\_\_\_

  
Timothy K. Light  
Vice President

**AEP GENERATION RESOURCES INC.**

By: \_\_\_\_\_

  
Charles E. Zebula  
President

**CONSENT GIVEN:**

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_

  
Timothy K. Light  
Vice President

## APPALACHIAN POWER COMPANY

### RATE SCHEDULE No. 304

#### REACTIVE SUPPLY AND VOLTAGE CONTROL FROM GENERATION SOURCES SERVICE

The AEP East Companies (Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, and Wheeling Power Company) provide Reactive Supply and Voltage from Generation Sources Service (“Reactive Supply Service”) from various generating facilities to the PJM Interconnection, LLC (“PJM”) system. This Rate Schedule sets forth the AEP East Companies’ revenue requirements for the provision of Reactive Supply Service to PJM from those facilities, as contemplated by Schedule 2 of the PJM open access transmission tariff. This Rate Schedule shall be effective upon the date authorized by the Federal Energy Regulatory Commission.

#### REACTIVE SUPPLY SERVICE REVENUE REQUIREMENT

UNIT NAME	REACTIVE REVENUE REQUIREMENT
Amos 1	\$747,726
Amos 2	\$747,726
Amos 3	\$1,192,575
Clinch River 1	\$304,769
Clinch River 2	\$304,769
Mountaineer	\$1,192,575
Cook 1	\$1,056,281
Cook 2	\$1,328,869
Rockport 1	\$1,192,575
Rockport 2	\$1,192,575
Big Sandy 1	\$329,378
Mitchell 1	\$747,726
Mitchell 2	\$747,726
Ceredo	\$1,457,832
Dresden	\$3,800,000
<div style="display: flex; justify-content: space-between;"> <span>Total Annual Revenue Requirement</span> <span>\$16,343,102.00</span> </div> <div style="display: flex; justify-content: space-between;"> <span>Total Monthly Revenue Requirement</span> <span>\$1,361,925.17</span> </div>	

AEP Operating Companies  
FERC Electric Tariff  
For Market-Based Sales  
Tariff

Tariff Submitter: **Appalachian Power Company**  
FERC Tariff Program Name: **FERC FPA Electric Tariff**  
Tariff Title: **MBR AEP Operating Companies**  
Tariff Record Proposed Effective Date: **March 1, 2019**  
Tariff Record Title: **Market-Based Rates Tariff**  
Option Code: **A**  
Record Content Description: **MBR**



## Availability

Appalachian Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company and Wheeling Power Company (collectively, the “AEP Operating Companies” or “Sellers”) may sell energy and/or capacity from time to time at rates, terms and conditions established by agreement of the Parties. All such transactions shall be voluntary. The AEP Operating Companies also may sell to purchasers the ancillary services listed in this Section 1:

a. RTO/ISO Specific

**PJM:** Sellers offer regulation and frequency response service, energy imbalance service, and operating reserve service (which includes spinning, 10-minute, and 30-minute reserves) for sale into the market administered by PJM Interconnection, L.L.C. (“PJM”) and, where the PJM Open Access Transmission permits, the self-supply of these services to purchasers for a bilateral sale that is used to satisfy the ancillary services requirements of the PJM Office of Interconnection.

**New York:** Sellers offer regulation and frequency response service, and operating reserve service (which include 10-minute non-synchronous, 30-minute operating reserves, 10-minute spinning reserves, and 10-minute non-spinning reserves) for sale to purchasers in the market administered by the New York Independent System Operator, Inc.

**New England:** Sellers offer regulation and frequency response service (automatic generator control), operating reserve service (which includes 10-minute spinning reserve, 10-minute non-spinning reserve, and 30-minute operating reserve service) to purchasers within the markets administered by the ISO New England, Inc.

**California:** Sellers offer regulation service, spinning reserve service, and non-spinning reserve service to the California Independent System Operator Corporation (“CAISO”) and to others that are self-supplying ancillary services to the CAISO.

**MISO:** Sellers offer regulation service and operating reserve service (which include 10-minute spinning reserve and 10-minute supplemental reserve) for sale to the Midcontinent Independent System Operator, Inc. (MISO) and to others that are self-supplying ancillary services to MISO.

**Southwest Power Pool:** Sellers offer regulation service and operating reserve service (which include 10-minute spinning reserve and 10-minute supplemental reserve) for sale to the Southwest Power Pool, Inc. (SPP) and to others that are self-supplying ancillary services to SPP.

b. Ancillary Services - Third Party Provider

**Third-party ancillary services:** Sellers offer Regulation Service, Reactive Supply and Voltage Control Service, Energy and Generator Imbalance Service, Operating Reserve-Spinning,

Operating Reserve Supplemental, and Primary Frequency Response Service. Sales will not include the following: (1) sales to an RTO or an ISO, i.e., where that entity has no ability to self-supply ancillary services but instead depends on third parties; and (2) sales to a traditional, franchised public utility affiliated with the third-party supplier, or sales where the underlying transmission service is on the system of the public utility affiliated with the third-party supplier. Sales of Operating Reserve-Spinning and Operating Reserve-Supplemental will not include sales to a public utility that is purchasing ancillary services to satisfy its own open access transmission tariff requirements to offer ancillary services to its own customers, except where the Commission has granted authorization. Sales of Regulation Service and Reactive Supply and Voltage Control Service will not include sales to a public utility that is purchasing ancillary services to satisfy its own open access transmission tariff requirements to offer ancillary services to its own customers, except at rates not to exceed the buying public utility transmission provider's OATT rate for the same service or where the Commission has granted authorization.

## **Rates, Terms and Conditions**

All sales made under this Tariff shall be at rates, terms, and conditions established by agreement between the purchaser and Sellers.

## **Duration**

This Tariff shall continue in effect until terminated or changed and such termination or change becomes effective in accordance with any applicable regulatory requirements.

## **Modifications**

Sellers may unilaterally apply, under Federal Power Act Section 205 and the regulations promulgated thereunder, to the Commission or other regulatory agency having jurisdiction for a modification of this Tariff.

## **Effective Date**

This Tariff is effective upon the date authorized by the Commission.

## **Limitations/Exemptions Regarding Market-Based Rate Authority**

a. Limitations

None.

b. Exemptions

In *American Electric Power Service Corp.*, 145 FERC ¶ 61,268 (2013), the Commission granted Sellers their request for waiver of the following market-based rate affiliate restrictions: (1) the separation of functions requirement in section 35.39(c)(2) to permit certain shared employees to continue to provide outage planning and resource allocation functions to AEP Generation Resources; (2) the asymmetrical pricing rule in section 35.39(e) in order for Sellers and AEP Generation Resources to participate in a capital spare parts and machine shop sharing arrangement; and (3) with respect to the Phillip Sporn Plant: (a) the affiliate restriction in section 35.39(d) to permit the sharing of information related to the operation of the plant; and (b) the separation of functions requirements in section 35.39(c)(2) to permit the sharing of employees engaged in fuel procurement.

In *American Electric Power Service Corp.*, 145 FERC ¶ 61,269 (2013), in connection with the Mitchell Power Generation Facility (“Mitchell Plant”), the Commission granted the waiver of the following market-based rate affiliate restrictions to Kentucky Power Company and AEP Generation Resources: (1) the affiliate restrictions in section 35.39(d) to permit the sharing of information related to the operation of the Mitchell Plant; (2) the asymmetrical pricing rule in section 35.39(e) for the O&M services provided by Kentucky Power Company to AEP Generation Resources, and (3) the separation of functions requirement in section 35.39(c)(2) to permit the sharing of employees engaged in fuel procurement.

The Commission has waived the Separation of Functions requirement of the affiliate restrictions codified at 18 C.F.R. § 35.39(c)(2) to allow AEP Energy Partners, Inc. to transfer to American Electric Power Service Corporation the real time dispatch functions for the Racine hydroelectric power plant that is owned by AEP Generation Resources Inc. *American Electric Power Service Corporation*, 167 FERC ¶ 61,066 (2019).

## **Compliance with Commission Regulations**

Sellers shall comply with the provisions of 18 CFR Part 35, Subpart H, as applicable, and with any conditions the Commission imposes in its orders concerning Sellers’ market-based rate authority, including orders in which the Commission authorizes Sellers to engage in affiliate sales under this Tariff or otherwise restricts or limits the Sellers’ market-based rate authority. Failure to comply with the applicable provisions of 18 CFR Part 35, Subpart H, and with any orders of the Commission concerning Sellers’ market-based rate authority, will constitute a violation of this Tariff.

## **Seller Category**

Sellers are Category 2 sellers, as defined by in the Northeast and Southwest Power Pool Regions, and Category 1 Sellers in the Central, Southeast, Southwest, and Northwest Regions, as defined in 18 C.F.R. § 35.36(a).

**RATE SCHEDULE NO. 303**

**MITCHELL PLANT OPERATING AGREEMENT**

**KENTUCKY POWER COMPANY**

**WHEELING POWER COMPANY**

**and**

**AMERICAN ELECTRIC POWER SERVICE CORPORATION, AS AGENT**

Tariff Submitter: **Kentucky Power Company**  
FERC Program Name: **FERC FPA Electric Tariff**  
Tariff Title: **KPCo Rate Schedules and Service Agreement Tariffs**  
Tariff Proposed Effective Date: **12/31/2014**  
Tariff Record Title: **Mitchell Plant Operating Agreement**  
Option Code: **A**  
Record Content Description: **Rate Schedule No. 303**

THIS MITCHELL PLANT OPERATING AGREEMENT (“Agreement”), with an effective date of December 31, 2014 (“Effective Date”), is by and among Kentucky Power Company, a Kentucky corporation qualified as a foreign corporation in West Virginia (“KPCo”), and Wheeling Power Company, a West Virginia corporation (“WPCo”) (such two parties hereinafter sometimes referred to as the “Owners”); and American Electric Power Service Corporation, a New York corporation qualified as a foreign corporation in West Virginia (“Agent”). KPCo, WPCo and Agent may hereinafter be referred to as a “Party” or collectively as the “Parties”.

WITNESSETH:

WHEREAS, KPCo acquired a fifty percent (50%) undivided ownership interest in the Mitchell Power Generation Facility consisting of two 800MW generating units and associated plant, equipment and real estate, located in Moundsville, West Virginia (the “Mitchell Facility”) on December 31, 2013; and

WHEREAS, AEP Generation Resources Inc. (“AEPGR”), an affiliate of the Parties, acquired a fifty percent (50%) undivided ownership interest in the Mitchell Facility, also on December 31, 2013; and

WHEREAS, pursuant to an Asset Contribution Agreement between AEPGR and Newco Wheeling Inc., a West Virginia corporation merged or to be merged into WPCo upon the closing of the transactions (the “Transfer Date”) set forth in such Asset Contribution Agreement (the “ACA”), AEPGR transferred its fifty percent (50%) undivided interest in the Mitchell Facility to Newco Wheeling Inc., exclusive of its interest in the Conner Run Fly Ash Impoundment and Dam (“Conner Run”), which interest in Conner Run was retained on the Transfer Date by AEPGR; and

WHEREAS, this Agreement shall be effective upon the Effective Date but the rights and obligations set forth herein shall not commence until 12:01 AM on the day following the Transfer Date; and

WHEREAS, the Owners desire that KPCo shall operate and maintain the Mitchell Facility, exclusive of Conner Run (the "Mitchell Plant"), in accordance with the provisions set forth herein; and

WHEREAS, the Owners are subsidiaries of American Electric Power Company, Inc. ("AEP"), the parent company in an integrated public utility holding company system, and use the services of Agent (an affiliated company engaged solely in the business of furnishing essential services to the Owners and to other affiliated companies), as outlined in the service agreements between Agent and KPCo and between Agent and WPCo.

NOW THEREFORE, in consideration of the premises and for the purposes hereinabove recited, and in consideration of the mutual covenants hereinafter contained, the signatories agree as follows:

## ARTICLE ONE

### FUNCTIONS OF KPCO AND AGENT

- 1.1 KPCo shall operate and maintain the Mitchell Plant in accordance with good utility practice consistent with procedures employed by KPCo at its other generating stations, and in conformity with the terms and conditions of this Agreement.
- 1.2 KPCo shall keep all necessary books of record, books of account and memoranda of all transactions involving the Mitchell Plant, and shall make computations and allocations on behalf of the Owners, as required under this Agreement. The books of

record, books of account and memoranda shall be kept in such manner as to conform, where so required, to the Uniform System of Accounts as prescribed by the Federal Energy Regulatory Commission (“FERC”) for Public Utilities and Licensees (“Uniform System of Accounts”), and to the rules and regulations of other regulatory bodies having jurisdiction as they may from time to time be in effect.

- 1.3 The Owners shall establish such bank accounts as may from time to time be required or appropriate.
- 1.4 As soon as practicable after the end of the month, KPCo shall furnish to WPCo a statement setting forth the dollar amounts associated with the operation and maintenance of the Mitchell Plant as allocated hereunder to KPCo and WPCo for such month. The Owners shall, on a timely basis, deposit sufficient dollar amounts in the appropriate bank accounts to cover their respective allocations of such costs.
- 1.5 KPCo shall be responsible for the day to day operation and maintenance of the Mitchell Plant. KPCo shall obtain such materials, labor and other services as it considers necessary in connection with the performance of the functions to be performed by it hereunder from such sources or through such persons as it may designate.
- 1.6 Agent, as directed by the Operating Committee and consistent with Agent’s service agreements with KPCo and WPCo, shall provide services necessary for the safe and efficient operation and maintenance of the Mitchell Plant.

ARTICLE TWO

APPORTIONMENT OF CAPACITY AND ENERGY

- 2.1 The Total Net Capability of the Mitchell Plant at the Mitchell Unit 1 and Unit 2 low-voltage busses, after taking into account auxiliary load demand, is 1,560,000 kilowatts. The Owners may from time to time modify the Total Net Capability of the Mitchell Plant as they may mutually agree.
- 2.2 The Total Net Generation of the Mitchell Plant during a given period, as determined by the requirements of KPCo and WPCo, shall mean the electrical output of the Mitchell Plant generators during such period, measured in kilowatt hours by suitable instruments, reduced by the energy used by auxiliaries for the Mitchell Unit 1 and Unit 2 during such period.
- 2.3 Except as set forth in Section 7.6 (including Section 7.6 Subsections), in any hour, KPCo and WPCo shall share the minimum load responsibility of Mitchell Unit 1 and Unit 2 in respective amounts proportionate to their ownership interests in the Mitchell Plant at such time. Each Owner may independently dispatch its share of the generating capacity between minimum and full load.
- 2.4 In any hour during which the Mitchell Units are out of service, the energy used by the out-of-service Units' auxiliaries during such hour shall be provided by KPCo and WPCo in respective amounts proportionate to their ownership interests in the Mitchell Plant at such time.



ARTICLE THREE

REPLACEMENTS, ADDITIONS, AND RETIREMENTS

- 3.1 KPCo shall from time to time make or cause to be made any additions to, replacements of, and retirements of, capitalizable facilities associated with the Mitchell Plant in accordance with the approved annual budget.
- 3.2 The dollar amounts associated with any additions to, replacements of, or retirements of, capitalizable facilities associated with the Mitchell Plant shall be allocated to KPCo and WPCo in respective amounts proportionate to their ownership interests in the Mitchell Plant at the time such additions, replacements, or retirements are made.

ARTICLE FOUR

WORKING CAPITAL REQUIREMENTS

- 4.1 KPCo and WPCo shall periodically mutually determine the amount of funds required for use as working capital in meeting payrolls and other expenses incurred in the operation and maintenance of the Mitchell Plant, and in buying materials and supplies (exclusive of fuel) for the Mitchell Plant.
- 4.2 KPCo and WPCo shall from time to time provide their share of working capital requirements in respective amounts proportionate to their ownership interests at such time in the Mitchell Plant.

ARTICLE FIVE

INVESTMENT IN FUEL

- 5.1 KPCo and Agent shall establish and maintain reserves of coal in stock piles for the Mitchell Plant of such quality and in such quantities as the Operating Committee shall determine to be required to provide adequate fuel reserves against interruptions of normal fuel supply, provided each Owner, subject to the approval of the Operating Committee and subject to no adverse impact on the operation of the Mitchell Plant, will have the right, but not the obligation, to directly purchase coal, transportation and consumables for its ownership interest. For the purposes of this Agreement, “consumables” shall be as defined in FERC account 502.
- 5.2 Except as provided in Section 5.1 for an Owner to elect to procure coal for its own interest, the Owners shall make such monthly investments in the common coal stock piles associated with the Mitchell Plant as are necessary to maintain the number of tons in such coal stock piles, after taking into account the coal consumption from the common coal stock piles by Mitchell Unit 1 and Unit 2 during such month.
- 5.3 At any time, KPCo’s and WPCo’s respective shares of the investment in the common coal stock piles shall be proportionate to their ownership interests in the Mitchell Plant, unless an Owner elects to procure its own coal as provided in Section 5.1, in which case inventories will be separately maintained for accounting purposes.
- 5.4 Fuel oil and consumables charged to operation for the Mitchell Plant shall be owned and accounted for between the Owners in the same manner as coal.

ARTICLE SIX

APPORTIONMENT OF STATION COSTS

6.1 Except in the case where an Owner has elected to purchase coal for its own interest as provided for in Section 5.1 (in which case the allocation to the Owners of fuel expense shall be in accordance with procedures and processes approved by the Operating Committee), the allocation to the Owners of fuel expense associated with Mitchell Unit 1 and Unit 2 shall be determined by KPCo and Agent as follows:

- (a) In any calendar month, the average unit cost of coal available for consumption from the Mitchell Plant common coal stock piles shall be determined based on the prior month's ending inventory dollar and ton balances plus current month receipts delivered to the Mitchell Plant common coal stock piles. Each Owner's average unit cost will be the same, and receipts and inventory available for consumption amounts will be allocated to each Owner based on monthly usage.
- (b) The number of tons of coal consumed by the Mitchell Plant in each calendar month from the Mitchell Plant common coal stock piles shall be determined and shall be converted into a dollar amount equal to the product of (i) the average cost per ton of coal associated with the Mitchell Plant in the Mitchell Plant common coal stock pile at the close of such month, and (ii) the number of tons of coal consumed by the Mitchell Plant from the Mitchell Plant common coal stock piles during such month. Such dollar amount shall be credited to the

Mitchell Plant fuel in stock pile and charged to Mitchell Plant fuel consumed.

(c) In each calendar month, KPCo's and WPCo's respective shares of the Mitchell Plant fuel consumed expense as determined by the provisions of Section 6.1(b) shall be proportionate to each Owner's dispatch of the Mitchell Plant in such month.

(d) Fuel oil reserves will be owned and accounted for in the same manner as coal stock piles, and fuel oil consumed will be allocated to the Owners in the same manner as coal consumed.

6.2 For purposes of this Agreement, KPCo's Assigned Capacity in the Mitchell Plant shall be equal to 50% of the Total Net Capability, and WPCo's Assigned Capacity shall be equal to 50% of the Total Net Capability.

6.3 For each calendar month, KPCo and Agent will, to the extent practicable, determine all Mitchell Plant operations expenses and associated overheads, as accounted for under the FERC Uniform System of Accounts.

6.4 For each calendar month, KPCo and Agent will, to the extent practicable, determine all Mitchell Plant maintenance expenses and associated overheads, as accounted for under the FERC Uniform System of Accounts.

6.5 In each calendar month, KPCo's and WPCo's respective shares of operations and maintenance expenses associated with the Mitchell Plant, as determined in accordance with Sections 6.3 and 6.4, shall be allocated as follows:

(a) In each calendar month, KPCo's and WPCo's respective shares of the Mitchell Plant steam expenses as recorded in FERC Account 502, and emission tons, with

allowance expenses as recorded in FERC Account 509, shall be proportionate to each Owner's dispatch of the Mitchell Plant in such month.

- (b) In each calendar month, the maintenance of boiler plant expenses as recorded in FERC Account 512, and maintenance of electric plant expenses as recorded in FERC Account 513, shall be directly assigned to Mitchell Unit 1 or Unit 2 or designated as a common expense attributable to both units. In each calendar month, KPCo's and WPCo's respective shares of these expenses shall be proportionate to each Owner's dispatch of the applicable unit, or both units in the case of common expenses, over the previous sixty (60) calendar months.

Dispatch is assumed to have been allocated fifty percent (50%) to each Owner for months that are prior to this Agreement.

- (c) In each calendar month, KPCo's and WPCo's respective shares of all other operations, maintenance, administrative and general expenses shall be proportionate to their respective ownership interests.

- 6.6 Each Owner shall bear the cost of all taxes attributable to its respective ownership interest in the Mitchell Plant.

## ARTICLE SEVEN

### OPERATING COMMITTEE AND OPERATIONS

- 7.1 By written notice to each other, the Owners and Agent each shall name one representative ("Operating Representative") and one alternate to act for it in matters pertaining to operating arrangements under this Agreement. Any Party may change its Operating Representative or alternate at any time by written notice to the other

Parties. The Operating Representatives for the respective Parties, or their alternates, shall comprise the Operating Committee. All decisions, directives, or other actions by the Operating Committee must be by unanimous agreement of the Operating Representatives of the Owners. The Operating Representative of Agent, or of any third party that provides services in replacement of Agent, shall be free to express the views of Agent or such third party on any matter, but shall not have a vote on the Operating Committee. Except as otherwise provided in Sections 11.1, 11.2 and 11.3 with respect to a dispute referred to the Operating Committee by an Owner, the failure of the Owners' respective Operating Representatives to unanimously agree with respect to a matter pending before the Operating Committee shall not be considered to be a dispute that would be subject to resolution under Article Eleven.

7.2 The Operating Committee shall have the following responsibilities:

- (a) Review and approval of an annual budget and annual operating plan, including determination of the emission allowances required to be acquired by KPCo and WPCo. If the Operating Committee fails to approve an annual budget, the approved annual budget from the previous year will continue to apply until such time as the new annual budget is approved.
- (b) Establishment and review of procedures and systems for dispatch, notification of dispatch, and unit commitment under this Agreement, including any commitment of Called Capacity pursuant to Section 7.6.2.

- (c) Establishment and monitoring of procedures for communication and coordination with respect to the Mitchell Plant capacity availability, fuel-firing options, and scheduling of outages for maintenance, repairs, equipment replacements, scheduled inspections, and other foreseeable cause of outages, as well as the return to availability following an unplanned outage.
- (d) Decisions on capital expenditures, including unit upgrades and re-powering.
- (e) Determinations as to changes in the unit capability and decisions on unit retirement.
- (f) Establishment and modification of billing procedures under this Agreement.
- (g) Approval of material contracts for fuel, transportation or consumable supply. Establishment of specification of fuels, oversight of fuel inspection and certification procedures, management of fuel inventories, and allocation of rights under fuel supply, transportation and consumable contracts. Establishment of an Owner's procurement rights and procedures if the Owner elects to purchase coal, transportation or consumables for its own interest.
- (h) Establishment of, termination of, and approval of any change or amendment to the operating arrangements between KPCo and Agent or any replacement third party with respect to the Mitchell Plant generating units; provided, however, that Agent or any replacement

third party shall participate in discussions pursuant to this subsection 7.2(h) only if and to the extent requested to do so by both Owners.

(i) Review and approval of plans and procedures designed to ensure compliance with any environmental law, regulation, ordinance or permit, including procedures for allocating and using emission allowances or for any programs that permit averaging at more than one unit for compliance.

(j) Other duties as assigned by agreement of the Owners.

7.3 The Operating Committee shall meet at least annually, and at such other times as any Party may reasonably request.

7.4 The Parties shall cooperate in providing to the Operating Committee the information it reasonably needs to carry out its duties, and to supplement or correct such information on a timely basis.

7.5 The Owners will each make an initial unit commitment one business day ahead of real-time dispatch.

7.6 Application of this Section 7.6 (including subsections) is subject to (i) the receipt of any necessary regulatory approvals or waivers expressly granted for this Section 7.6; and (ii) the Operating Committee establishing and approving procedures and systems for dispatch. As used in this Section and subsections of this Section, the terms "Party" or "Parties" refers only to KPCo and WPCo, or both of them, as the case may be.



- 7.6.1 If Mitchell Unit 1 or Unit 2 is designated to be committed by both Parties, such unit will be brought on line or kept on line. If neither Party designates Mitchell Unit 1 or Unit 2 to be committed, such unit will remain off line or be taken offline.
- 7.6.2 When a Mitchell Unit is designated to be committed by one Party, but designated not to be committed by the other Party, the unit will be brought on line or kept on line if the Party designating the unit for commitment undertakes to pay any applicable start-up costs for the unit, as well as any applicable minimum running costs for the unit thereafter, in which event the unit shall be brought on line or kept on line, as the case may be. The Party so designating the unit to be committed shall have the right to schedule and dispatch up to all of the Available Capacity of the unit. Available Capacity means that portion of the Owners' aggregate Assigned Capacity that is currently capable of being dispatched. The Party exercising this right shall be referred to as the "Calling Party," and the capacity called by that Party in excess of its Assigned Capacity Percentage of the Available Capacity of that unit shall be referred to as its "Called Capacity." The other Party shall be referred to as the "Non-Calling Party". The Calling Party shall provide reasonable notice to the Non-Calling Party of its call, including any start-up or shut-down time for the Unit. For purposes of this Agreement, KPCo's Assigned Capacity Percentage shall be 50%, and WPCo's Assigned Capacity Percentage shall be 50%.
- 7.6.3 The Non-Calling Party can reclaim any Called Capacity attributable to its Assigned Capacity share by giving the Calling Party notice equal to the normal cold start-up time for the unit. At the end of the notice period, the Non-Calling Party shall have the right to schedule and dispatch the recalled capacity. At that point, the Non-

Calling Party shall resume its responsibility for its share of any applicable start-up costs for the unit and prospectively shall bear its responsibility for the costs associated with its Assigned Capacity from the unit.

- 7.6.4 If any capacity remains available but is not dispatched from a Party's Available Capacity committed as a result of the initial unit commitment, the other Party may only schedule and dispatch such capacity pursuant to agreement with the non-dispatching Party.
- 7.7 KPCo and WPCo shall be individually responsible for any fees charged by FERC on the basis of the sales or transmission by each of capacity or energy at wholesale in interstate commerce.
- 7.8 Emission Allowances. On the Transfer Date pursuant to the ACA, AEPGR, the previous owner of WPCo's interest in the Mitchell Plant, will assign to WPCo all Emission Allowances allocated to AEPGR for the Mitchell Plant for each vintage year after 2014, issued by the U.S. Environmental Protection Agency ("USEPA") pursuant to Title IV of the Clean Air Act Amendments of 1990 and any regulations thereunder, and any other emission allowance trading program created under the Clean Air Act and administered by USEPA or the State of West Virginia, including but not limited to the Clean Air Interstate Rule 40 CFR Parts 96 and 97, and any amendments thereto ("Emission Allowances"), and all Emission Allowances for 2014 and any vintage year prior to 2014 that were allocated to the Mitchell Plant and that have not been expended as of the date of assignment. To the extent that additional Emission Allowances are required for operation of the Mitchell Plant, KPCo and WPCo will each be responsible for acquiring sufficient Emission

Allowances to satisfy the Emission Allowances required because of its dispatch of energy from the Mitchell Plant, and the Emission Allowances required to satisfy the Emission Allowance surrender obligations attributable to the Mitchell Plant imposed under the Consent Decree between USEPA and Ohio Power Company entered on December 10, 2007, in Civil Action No. C2-99-1182 and consolidated cases by the U.S. District Court in the Southern District of Ohio. On or before January 10 of each year, Agent shall determine and notify KPCo and WPCo of the number of additional annual Emission Allowances consumed by each of them through December 31 of the previous year, and KPCo and WPCo shall each transfer into the Mitchell Plant U.S. EPA Allowance Transfer System account that number of Emission Allowances with a small compliance margin by January 31 of that year. For seasonal Emission Allowance programs, Agent shall determine and notify KPCo and WPCo of the number of additional seasonal Emission Allowances consumed by each of them during the applicable compliance period by the 10<sup>th</sup> day of the first month following the end of the compliance period, and KPCo and WPCo shall each transfer into the appropriate Mitchell Plant U.S. EPA Allowance Transfer System Account that number of Emission Allowances with a small compliance margin by the last day of the first month following the end of the compliance period. In the event that KPCo or WPCo fails to surrender the required number of Emission Allowances by January 31 or the last day of the first month following any seasonal compliance period, Agent shall purchase the required number of Emission Allowances, and KPCo or WPCo, as the case may be, shall reimburse Agent for such purchases, with interest at the Federal Funds Rate (as published by the Board of

Governors of the Federal Reserve System as from time to time in effect) running from the date of such purchases to the date of payment. The Operating Committee will develop procedures to be implemented after the end of each calendar year to account for the Emission Allowances required by the use of the Mitchell Plant by KPCo and WPCo and to correct any imbalance between Emission Allowances supplied and Emission Allowances used through the end of the preceding year by settlement or payment.

- 7.9 Capital repairs and improvements to the Mitchell Plant will be determined by the Operating Committee pursuant to the annual budgeting process set forth in Section 7.10. Expenditures that the Operating Committee determines have been or will be incurred exclusively for one Owner shall be assigned exclusively to that Owner.
- 7.10 At least 90 days before the start of each operating year, KPCo and Agent shall submit to the Operating Committee a proposed annual budget with respect to the Mitchell Plant, a proposed annual operating plan, and an estimate and schedule of costs to be incurred for major maintenance or replacement items during the next six-year period. The annual budget shall be presented on a month-by-month basis for each month during the next operating year, and shall include an operating budget, a capital budget, an estimate of the cost of any major repairs that are anticipated will occur during such operating year with respect to the Mitchell Plant, and an itemized estimate of all projected non-fuel variable operating expenses relating to the operation of the Mitchell Plant during that operating year. The members of the Operating Committee will meet and work in good faith to agree upon the final annual budget and final annual operating plan. Once approved, the annual budget

and annual operating plan shall remain in effect throughout the applicable operating year, subject to such changes, revisions, amendments, and updating as the Operating Committee may determine.

## ARTICLE EIGHT

### EFFECTIVE DATE AND TERM

- 8.1 Subject to FERC approval or acceptance for filing, the Effective Date of this Agreement shall be December 31, 2014.
- 8.2 Subject to FERC approval or acceptance, if necessary, this Agreement shall remain in force until such time as (i) KPCo or WPCo has divested itself of all or any portion of its ownership interest in the Mitchell Plant, other than assignment or other transfer of such ownership interests to another AEP affiliate; or (ii) either KPCo or WPCo is no longer a direct or indirect wholly owned subsidiary of AEP; or (iii) KPCo and WPCo may mutually agree to terminate this Agreement.

ARTICLE NINE

GENERAL

- 9.1 This Agreement shall inure to the benefit of and be binding upon the signatories hereto and their respective successors and assigns, but this Agreement may not be assigned by any signatory without the written consent of the others, which consent shall not be unreasonably withheld.
- 9.2 This Agreement is subject to the regulatory authority of any State or Federal agency having jurisdiction.
- 9.3 The interpretation and performance of this Agreement shall be in accordance with the laws of the State of Ohio, excluding conflict of laws principles that would require the application of the laws of a different jurisdiction.
- 9.4 This Agreement supersedes all previous representations, understandings, negotiations, and agreements, either written or oral between the signatories or their representatives with respect to operation of the Mitchell Plant, and constitutes the entire agreement of the signatories with respect to the operation of the Plant. Notwithstanding the foregoing, this Agreement does not supersede any previous agreements among any of the signatories allocating or transferring rights to capacity and associated energy, or ownership, of the Mitchell Plant.
- 9.5 Each Party shall designate in writing a representative to receive any and all notices required under this Agreement. Notices shall be in writing and shall be given to the representative designated to receive them, either by personal delivery, certified mail, facsimile, e-mail or any similar means, properly addressed to such representative at the address specified below:

KENTUCKY POWER COMPANY

Gregory G. Pauley

President & COO

Attn: \_\_\_\_\_

Phone: (502) 696-7007

Facsimile: (502) 696-7006

Email: [ggpauley@aep.com](mailto:ggpauley@aep.com)

WHEELING POWER COMPANY

Charles R. Patton

President

Attn: \_\_\_\_\_

Phone: (304) 348-4152

Facsimile: (304) 348-4198

Email: [crpatton@aep.com](mailto:crpatton@aep.com)

AMERICAN ELECTRIC POWER SERVICE  
CORPORATION

Mark C. McCullough

Executive Vice President – Generation

Attn: \_\_\_\_\_

Phone: (614) 716-2400

Facsimile: (614) 716-1331

Email: [mcmccullough@aep.com](mailto:mcmccullough@aep.com)

All notices shall be effective upon receipt, or upon such later date following receipt as set forth in the notice. Any Party may, by written notice to the other Parties, change the representative or the address to which such notices are to be sent.

## ARTICLE TEN

### LIMITATION OF LIABILITY

- 10.1 Notwithstanding anything in this Agreement to the contrary, neither of the Owners or Agent shall be liable under this Agreement for special, consequential, indirect, punitive or exemplary damages, or for lost profits or business interruption damages, whether arising by statute, in tort or contract or otherwise.

## ARTICLE ELEVEN

### DISPUTE RESOLUTION

- 11.1 If either Owner believes that a dispute has arisen as to the meaning or application of this Agreement, it shall present that matter to the Operating Committee in writing, and shall provide a copy of that writing to the other Owner.
- 11.2 If the Operating Committee is unable to reach agreement on a dispute submitted to the Operating Committee pursuant to Section 11.1 within thirty (30) days after the dispute is presented to it, the matter shall be referred to the chief operating officers of the Owners for resolution in the manner that such individuals shall agree is appropriate; provided, however, that either Owner involved in the dispute may invoke the arbitration provisions set forth in Section 11.3 at any time after the end of the thirty (30) day period provided for the Operating Committee to reach agreement if the Operating Committee has not reached agreement.
- 11.3 If the Owners are unable to resolve a dispute through the Operating Committee within thirty (30) days after the dispute is presented to the Operating Committee pursuant to Section 11.1, or through reference of the matter to the chief operating



officers of the Owners pursuant to Section 11.2, either Owner may commence arbitration proceedings by providing written notice to the other Owner, detailing the nature of the dispute, designating the issue(s) to be arbitrated, identifying the provisions of this Agreement under which the dispute arose, and setting forth such Owner's proposed resolution of such dispute.

- 11.3.1 Within ten (10) days of the date of the notice of arbitration, a representative of each Owner shall meet for the purpose of selecting an arbitrator. If the Owners' representatives are unable to agree on an arbitrator within fifteen (15) days of the date of the notice of arbitration, then an arbitrator shall be selected in accordance with the procedures of the American Arbitration Association ("AAA"). Whether the arbitrator is selected by the Owners' representatives or in accordance with the procedures of the AAA, the arbitrator shall have the qualifications and experience in the occupation, profession, or discipline relevant to the subject matter of the dispute.
- 11.3.2 Any arbitration proceeding shall be subject to the Federal Arbitration Act, 9 U.S.C. §§ 1 *et seq.* (1994), as it may be amended, or any successor enactment thereto, and shall be conducted in accordance with the commercial arbitration rules of the AAA in effect on the date of the notice to the extent not inconsistent with the provisions of this Article.
- 11.3.3 The arbitrator shall be bound by the provisions of this Agreement where applicable, and shall have no authority to modify any terms and conditions of this Agreement in any manner. The arbitrator shall render a decision resolving the dispute in an equitable manner, and may determine that monetary damages are due to an Owner or may issue a directive that an Owner take certain actions or refrain from taking

certain actions, but shall not be authorized to order any other form of relief; provided, however, that nothing in this Article shall preclude the arbitrator from rendering a decision that adopts the resolution of the dispute proposed by an Owner. Unless otherwise agreed to by the Owners, the arbitrator shall render a decision within one hundred twenty (120) days of appointment, and shall notify the Owners in writing of such decision and the reasons supporting such decision. The decision of the arbitrator shall be final and binding upon the Owners, and any award may be enforced in any court of competent jurisdiction.

- 11.3.4 The fees and expenses of the arbitrator shall be shared equally by the Owners, unless the arbitrator specifies a different allocation. All other expenses and costs of the arbitration proceeding shall be the responsibility of the Owner incurring such expenses and costs.
- 11.3.5 Unless otherwise agreed by the Owners, any arbitration proceedings shall be conducted in Columbus, Ohio.
- 11.3.6 Except as provided in this Article, the existence, contents, or results of any arbitration proceeding under this Article may not be disclosed without the prior written consent of the Owners, provided, however, that either Owner may make disclosures as may be required to fulfill regulatory obligations to any agencies having jurisdiction, and may inform its lenders, affiliates, auditors, and insurers, as necessary, under pledge of confidentiality, and may consult with expert consultants as required in connection with an arbitration proceeding under pledge of confidentiality.

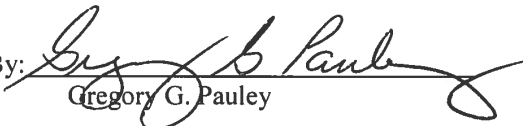
11.3.7 Nothing in this Agreement shall be construed to preclude either Owner from filing a petition or complaint with FERC with respect to any claim over which FERC has jurisdiction. In such case, the other Owner may request that FERC reject the petition or complaint or otherwise decline to exercise its jurisdiction. If FERC declines to act with respect to all or part of a claim, the portion of the claim not so accepted by FERC may be resolved through arbitration, as provided in this Article. To the extent that FERC asserts or accepts jurisdiction over all or part of a claim, the decisions, findings of fact, or orders of FERC shall be final and binding, subject to judicial review under the Federal Power Act, 16 U.S.C. § 791a *et seq.*, as amended from time to time, and any arbitration proceedings that may have commenced prior to the assertion or acceptance of jurisdiction by FERC shall be stayed, pending the outcome of the FERC proceedings. The arbitrator shall have no authority to modify, and shall be conclusively bound by, any decisions, findings of fact, or orders of FERC; provided, however, that to the extent that any decisions, findings of fact, or orders of FERC do not provide a final or complete remedy to an Owner seeking relief, such Owner may proceed to arbitration under this Article to secure such a remedy, subject to any FERC decisions, findings, or orders.

11.4 The procedures set forth in this Article shall be the exclusive means for resolving disputes arising under this Agreement and shall survive this Agreement to the extent necessary to resolve any disputes pertaining to this Agreement. Except as provided in Sections 11.3 and 11.3.7, neither Owner shall have the right to bring any dispute for resolution before a court, agency, or other entity having jurisdiction over this Agreement, unless both Owners agree in writing to such procedure.

11.5 To the extent that a dispute involves the actions, inactions or responsibilities of Agent under this Agreement, the provisions of this Article shall be applicable to such dispute. For such purposes, Agent shall be treated as an Owner in applying the provisions of this Article.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their officers thereunto duly authorized as of the date first above written.

KENTUCKY POWER COMPANY

By:   
Gregory G. Pauley

Title: President & COO

WHEELING POWER COMPANY

By: \_\_\_\_\_  
Charles R. Patton

Title: President

AMERICAN ELECTRIC POWER SERVICE CORPORATION

By: \_\_\_\_\_  
Mark C. McCullough

Title: Executive Vice President - Generation

11.5 To the extent that a dispute involves the actions, inactions or responsibilities of Agent under this Agreement, the provisions of this Article shall be applicable to such dispute. For such purposes, Agent shall be treated as an Owner in applying the provisions of this Article.

IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their officers thereunto duly authorized as of the date first above written.

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By: \_\_\_\_\_  
Gregory G. Pauley

Title: President & COO

WHEELING POWER COMPANY

By: Charles R. Patton  
Charles R. Patton

Title: President

AMERICAN ELECTRIC POWER SERVICE CORPORATION

By: \_\_\_\_\_  
Mark C. McCullough

Title: Executive Vice President - Generation

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IN WITNESS WHEREOF, the Parties hereto have caused this Agreement to be executed by their officers thereunto duly authorized as of the date first above written.

KENTUCKY POWER COMPANY

By: \_\_\_\_\_  
Gregory G. Pauley

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WHEELING POWER COMPANY

By: \_\_\_\_\_  
Charles R. Patton

Title: President

AMERICAN ELECTRIC POWER SERVICE CORPORATION

By:  \_\_\_\_\_  
Mark C. McCullough

Title: Executive Vice President - Generation

**RATE SCHEDULE No. 300**

**POWER COORDINATION AGREEMENT**

**among**

**APPALACHIAN POWER COMPANY,  
INDIANA MICHIGAN POWER COMPANY,  
KENTUCKY POWER COMPANY,  
WHEELING POWER COMPANY**

**and**

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

**as Agent**

Tariff Submitter: **Appalachian Power Company**  
FERC Program Name: **FERC FPA Electric Tariff**  
Tariff Title: **APCo Rate Schedules and Service Agreements Tariffs**  
Tariff Proposed Effective Date: **06/01/2015**  
Tariff Record Title: **Power Coordination Agreement**  
Option Code: **A**  
Record Content Description: **Rate Schedule No. 300**

## **POWER COORDINATION AGREEMENT**

**THIS AGREEMENT** is made and entered into as of this \_\_\_ day of \_\_\_\_\_, 2015, by and among Appalachian Power Company (“APCo”), Indiana Michigan Power Company (“I&M”), Kentucky Power Company (“KPCo”), Wheeling Power Company (“WPCo”) and American Electric Power Service Corporation (“AEPSC”) as agent (“Agent”) to APCo, I&M, KPCo and WPCo.

### **RECITALS:**

**WHEREAS**, APCo, I&M, KPCo and WPCo (collectively the “Operating Companies” or individually “Operating Company”) own and operate electric generation, transmission and distribution facilities with which they are engaged in the business of generating, transmitting and selling electric power to the general public and to other electric utilities;

**WHEREAS**, the Operating Companies' electric facilities are now and have been for many years interconnected through their respective transmission facilities and transmission facilities of third parties at a number of points;

**WHEREAS**, APCo, I&M, KPCo and WPCo provide power to serve retail and wholesale customers in Indiana, Kentucky, Michigan, Tennessee, Virginia and West Virginia;

**WHEREAS**, APCo, I&M, KPCo and WPCo believe that they can continue to achieve efficiencies and economic benefits through (a) participation in the organized power markets of a regional transmission organization and (b) allocation of off-system sales and purchases with other parties on bases that fairly assign or allocate the costs and benefits of these transactions;

**WHEREAS**, the achievement of the foregoing will be facilitated by the performance of certain services by an Agent;



**WHEREAS**, AEPSC is the service company affiliate of APCo, I&M, KPCo and WPCo and as such performs a variety of services on their behalf in accordance with applicable rules and regulations of the Federal Energy Regulatory Commission (“Commission”); and

**WHEREAS**, AEPSC is willing to serve as Agent to APCo, I&M, KPCo and WPCo under this Agreement.

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

## **ARTICLE I DEFINITIONS**

**1.1 Agreement** means this Power Coordination Agreement among APCo, I&M, KPCo, WPCo and Agent, including all Service Schedules and attachments hereto.

**1.2 Capacity Auction** means auctions implemented pursuant to a Capacity Market, and may include, but is not necessarily limited to, the Base Residual Auction and other incremental auctions conducted in accordance with the PJM Interconnection, LLC (“PJM”) Reliability Pricing Model market rules.

**1.3 Capacity Market** means any market of an applicable regional transmission organization under which the Operating Companies satisfy their capacity obligations as load serving entities, which would include, for example, the PJM capacity market as described in the PJM Reliability Assurance Agreement (“RAA”) and Attachment DD of the PJM Open Access Transmission Tariff (“PJM OATT”).

**1.4 Dedicated Wholesale Customer** means a wholesale customer whose load is served by an Operating Company that has undertaken, by contract, an obligation to serve that customer's partial or full requirements load and to acquire power supply resources and other resources necessary to meet those requirements.

**1.5 Generation Hedge Transactions** means Off-System Transactions entered into for the purpose of hedging the output of the generation assets of one or more of the Operating Companies.

**1.6 Industry Standards** means all applicable national and regional electric reliability council and regional transmission organization principles, guides, criteria, standards and practices.

**1.7 Internal Load** means all sales of power, plus associated line losses, by an Operating Company to its Retail Customers and Dedicated Wholesale Customers. As distinguished from Off-System Sales, Internal Load is principally characterized by the Operating Company assuming the load obligation as its own power commitment.

**1.8 Off-System Sales** means all wholesale power sales by an Operating Company other than sales to the Retail Customers and Dedicated Wholesale Customers that comprise the Operating Company's Internal Load. Sales of wholesale power by an Operating Company to another Operating Company are not governed by this Agreement, and will not be deemed Off-System Sales under this Agreement.

**1.9 Off-System Purchases** means wholesale power purchases by an Operating Company or Operating Companies for any of the following reasons: (a) to reduce power supply costs, (b) to serve load requirements, (c) to provide reliability of supply, (d) to satisfy state specific requirements or goals or (e) to engage in Off-System Sales. Purchases of wholesale power by an Operating Company from another Operating Company are not governed by this Agreement, and will not be deemed Off-System Purchases under this Agreement.

**1.10 Off-System Transactions** means Off-System Sales, Off-System Purchases and any other types of power-related wholesale transactions, whether physical or financial, on behalf of an Operating Company or Operating Companies, excluding sales to Internal Load customers.

**1.11 Operating Committee** means the administrative body established pursuant to Article VI for the purposes specified within this Agreement.

**1.12 Party** means each of APCo, I&M, KPCo, WPCo and Agent, individually, and **Parties** means APCo, I&M, KPCo, WPCo and Agent, collectively.

**1.13 Retail Customer** means a retail power customer on whose behalf an Operating Company has undertaken an obligation to obtain power supply resources in order to supply electricity to reliably meet the electric needs of that customer.

**1.14 Service Schedules** means the Service Schedules attached to this Agreement, as they may be amended from time to time, and those that later may be agreed to by the Parties and made part of a modified Agreement.

**1.15 Spot Market** means the day ahead, real time (balancing) or similar short-term energy market(s) operated by the applicable regional transmission organization(s), typically characterized by energy that is selected and delivered on an hourly, or more frequent, basis during that same day or the next calendar day.

**1.16 System Emergency** means a condition which, if not promptly corrected, threatens to cause imminent harm to persons or property, including the equipment of a Party or a Third Party, or threatens the reliability of electric service provided by an Operating Company to Retail Customers or Dedicated Wholesale Customers.

**1.17 Third Party or Third Parties** means any entity or entities that are not a Party or Parties.

**1.18 Trading Transactions** means Off-System Transactions that are not Generation Hedge Transactions or otherwise sourced or hedged from, dedicated to, or associated with the generation assets or Internal Load of the Operating Companies.

## **ARTICLE II TERM OF AGREEMENT**

**2.1 Term and Withdrawal.** Subject to Commission approval or acceptance for filing, this Agreement shall take effect on June 1, 2015, or such other date permitted by the Commission, and shall continue in full force and effect until (a) terminated by mutual agreement or (b) upon no less than twelve (12) months' written notice by one Party to each of the other Parties, after which time the notifying Party will be withdrawn from the Agreement and the Agreement will continue in full force and effect for the remaining Parties except for such modifications necessary to remove the withdrawn Party.

## **ARTICLE III [INTENTIONALLY OMITTED]**

## **ARTICLE IV SCOPE AND RELATIONSHIP TO OTHER AGREEMENTS AND SERVICES**

**4.1 Scope.** This Agreement is not intended to preclude the Parties from entering into other arrangements between or among themselves or with Third Parties. This Agreement is intended to operate in addition to, not in lieu of, power market transactions and settlements that occur between each Operating Company, or the Operating Companies collectively, and any applicable regional transmission organizations.

**4.2 Transmission.** This Agreement is intended to apply to the coordination of the power supply resources of, and loads served by, the Operating Companies. It is not intended to

apply to the coordination of transmission facilities owned or operated by the Operating Companies.

## **ARTICLE V AGENT**

**5.1 Agent.** The Agent will perform the activities and duties specified by this Agreement and any other activities or duties pertaining to this Agreement that may be requested from time to time by one or more Operating Companies, subject to the receipt of any necessary regulatory approvals. The Operating Companies delegate to AEPSC, as the Agent, and AEPSC hereby accepts responsibility and authority for the duties specified in this Agreement and shall perform each of those duties under the direction of the Operating Companies. With the prior written consent of the Operating Companies, AEPSC may delegate all or a part of its responsibilities under this Agreement to another entity.

## **ARTICLE VI COMPOSITION AND DUTIES OF THE OPERATING COMMITTEE**

**6.1 Operating Committee.** By written notice to the other Parties, each Party shall name one representative (“Representative”) to act for it in matters pertaining to this Agreement and its implementation. A Party may change its Representative at any time by written notice to the other Parties. The Representatives of the respective Parties shall comprise the Operating Committee. The Agent’s Representative shall act as the chairman of the Operating Committee (“Chairman”). All decisions of the Operating Committee shall be by a simple majority vote of the Representatives. There shall be only five voting representatives on the Operating Committee. No Party may delegate its vote to another entity.

**6.2 Meeting Dates.** The Operating Committee shall hold meetings at such times, means, and places as the members shall determine. Minutes of each Operating Committee meeting shall be prepared and maintained.

**6.3 Duties.** The Operating Committee shall have the duties listed below:

- (a) reviewing and providing direction concerning the equitable sharing of costs and benefits under this Agreement among the Operating Companies;
- (b) administering this Agreement and proposing amendments hereto, including such amendments that are proposed in response to a change in regulatory requirements applicable to one or more of the Operating Companies or changes concerning an applicable regional transmission organization, provided that any amendments will be subject to Section 13.2; and
- (c) reviewing and, if necessary, proposing changes to the duties and responsibilities of the Agent, subject to Section 5.1.

In the event that an action of the Operating Committee results in a change to the settlement process(es) among the Operating Companies, such modified settlement will normally occur on a prospective basis only, however, this may include past billing periods back to the beginning of the first full billing month preceding the date of action of the Operating Committee. Such modifications will be subject to the terms of Article IX as applicable.

## **ARTICLE VII OPERATING COMPANY PLANNING AND OPERATIONS**

**7.1 Operating Company and System Planning.** Each Operating Company will be individually responsible for its own capacity planning. Consistent with the requirements of PJM or the applicable regional transmission or reliability organization, each Operating Company will be responsible for maintaining an adequate level of power supply resources to meet its own

Internal Load requirements for capacity and energy, including any required reserve margins, and shall bear all of the resulting costs. The Agent shall assess the adequacy of the power supply resources of the Operating Companies and make recommendations to each Operating Company regarding (1) the need for additional power supply resources and (2) whether each Operating Company has power supply resources in excess of its needs (short-term or long-term) that could be made available to the other Operating Companies or Third Parties either through separate contracts or through the power markets of the applicable regional transmission organization. The actual addition or disposition of power supply resources will be conditioned on compliance with all applicable state and other regulatory requirements and requirements of the applicable regional transmission organization.

**7.2 Generation Resource Outage Planning.** The Agent, on behalf of the Operating Companies, will coordinate the scheduling of planned generation resource outages in order to support reliability and manage costs.

**7.3 Generation Resource Dispatch.** The generation resources of each of the Operating Companies will be individually dispatched by the Agent in accordance with the direction of the applicable regional transmission organization.

**7.4 Regional Transmission Organization Transactions.** The Agent will administer the participation of the Operating Companies in the power markets of the applicable regional transmission organization. Each Operating Company shall be individually responsible for charges it incurs and credits it receives due to its participation in the power markets of a regional transmission organization. Such costs and revenues will be assigned or allocated directly by the applicable regional transmission organization or its agent where practical. The Operating Companies may collectively participate from time to time in specific markets of the regional

transmission organization or to meet certain regional transmission or reliability organization requirements, in which case the allocation of resulting revenues and/or costs, if any, will be performed as specified herein. The election of whether each Operating Company's load and generation resources will participate in the Capacity Market of PJM through the Reliability Pricing Model auctions or through the Fixed Resource Requirement alternative, either collectively or individually, for any planning year is not governed by this Agreement.

**7.5 Off System Transactions.** The Agent will engage in Off-System Transactions on behalf of or at the direction of the Operating Companies and will assign or allocate the costs and revenues of Off-System Transactions to the Operating Companies in the manner specified below.

**7.5.1 Capacity Purchases and Sales with Third Parties.** Except as described in Section 7.5.2 related to the PJM Capacity Auctions: (1) Off-System Transactions of capacity undertaken for an individual Operating Company will be directly assigned to that Operating Company; (2) Off-System Purchases of capacity undertaken for more than one Operating Company will be allocated among those Operating Companies ratably in proportion to the total capacity needed by each Operating Company minus each Operating Company's total capacity resources; and (3) Off-System Sales of capacity undertaken for more than one Operating Company will be allocated among those Operating Companies ratably in proportion to the total capacity resources of each Operating Company minus the total capacity obligation of each Operating Company (including any holdback required by the applicable regional transmission organization).

**7.5.2 Capacity Purchases and Sales in the PJM Capacity Auctions And Related Issues.** When an Operating Company participates individually in the Reliability Pricing Model or the Fixed Resource Requirement alternative, Off-System Transactions



of capacity related to a PJM Capacity Auction will be directly assigned to the specific Operating Company based on the results of such auctions.

When two or more Operating Companies collectively participate in the Fixed Resource Requirement alternative, any Off-System Transactions of capacity related to a PJM Capacity Auction will be allocated to each participating Operating Company ratably in proportion to the total capacity resources of each Operating Company minus the total capacity obligation of each Operating Company (including any holdback required by PJM) for the applicable planning year(s), and Service Schedule A will apply to delivery year and post-delivery year obligations of the participating Operating Companies associated with the Fixed Resource Requirement alternative.

**7.5.3 Directly Assigned Energy Purchases and Sales with Third Parties.**

Off-System Transactions of energy will be directly assigned to the applicable Operating Company. Costs and revenues associated with each Operating Company's Off-System Sales of energy and Internal Load energy purchases from the applicable regional transmission organization in the Spot Market, including the purchase of any energy deficits or sales of any energy surpluses, will be directly assigned to that Operating Company.

**7.5.4 Generation Hedge Transactions and Trading Transactions.** Revenues and costs associated with Generation Hedge Transactions, including revenues and costs associated with the settlement of Generation Hedge Transactions in the Spot Market or other markets of the applicable regional transmission organization, will be allocated among the Operating Companies by the Agent as specified under Service Schedule B.

Revenues and costs associated with Trading Transactions, including revenues and costs associated with the settlement of Trading Transactions in the Spot Market or other markets of the applicable regional transmission organization, will be allocated among the Operating Companies by the Agent as specified under Service Schedule C.

**7.6 Emergency Response.** In the event of a System Emergency, no adverse distinction shall be made between the customers of any of the Operating Companies. Each Operating Company shall, under the direction of the applicable regional transmission organization, make its power supply resources available in response to a System Emergency. Notwithstanding the foregoing, it is understood that transmission constraints or other factors may limit the ability of an Operating Company to respond to a System Emergency.

#### **ARTICLE VIII ASSIGNMENT OF COSTS AND BENEFITS OF COORDINATED OPERATIONS**

**8.1 Service Schedules.** The costs and revenues associated with coordinated operations as described in Article VII shall be distributed among the Operating Companies in the manner provided in the Service Schedules utilizing the billing procedures described in Article IX. It is understood and agreed that all such Service Schedules are intended to establish an equitable sharing of costs and/or benefits among the Operating Companies, and that circumstances may, from time to time, require a reassessment of the relative costs and benefits of this Agreement, or of the methods used to apportion costs and benefits under the Service Schedules. Upon a proposal of the Operating Committee, any of the Service Schedules may be amended as of any date agreed to by the Operating Committee by majority vote, subject to Section 13.2.

## **ARTICLE IX BILLING PROCEDURES**

**9.1 Records.** The Agent shall maintain such records as may be necessary to determine the assignment of costs and revenues of coordinated operations pursuant to this Agreement. Such records shall be made available to the Parties upon request for a period not to exceed three (3) years.

**9.2 Monthly Net Billing Statements.** As promptly as practicable after the end of each calendar month, the Agent shall prepare a statement setting forth the monthly summary of costs and revenues allocated or assigned to the Operating Companies in sufficient detail as may be needed for settlements under the provisions of this Agreement. As required, the Agent may provide such statements on an estimated basis and then adjust those statements for actual results.

**9.3 Billings and Payments.** The Agent shall be responsible for all billing between the Operating Companies and other entities with which they engage in Off-System Transactions pursuant to this Agreement. Payments among the Operating Companies, if any, shall be made by remittance of the net amount billed or by making appropriate accounting entries on the books of the Parties. The entire amount shall be paid when due.

**9.4 Taxes.** Should any federal, state, or local tax, surcharge or similar assessment, in addition to those that may now exist, be levied upon the electric capacity, energy, or services to be provided in connection with this Agreement, or upon the provider of service as measured by the electric capacity, energy, or services, or the revenue there from, such additional amount shall be included in the net billing described in Section 9.3.

**9.5 Undelivered and Unpaid Monthly Billing Statements.** Within one (1) year from the date on which a billing statement should have been delivered, if a Party's records reveal that the bill was not delivered, then the Agent shall deliver to the appropriate Party a bill within

one (1) month of this determination. Any amounts collected or reimbursed due to such delay shall not include interest.

**9.6 Billing Errors and Disputes.** If a Party discovers a billing error pertaining to a prior billing for reasons including, but not limited to, missing or erroneous data or calculations, including those caused by meter, computer or human error, a correction adjustment will be calculated through the second full month preceding discovery of the error. The Parties shall have the right to dispute the accuracy of any bill or payment for a period not to exceed two months from the date on which the bill or, if applicable, the corrected bill was initially delivered. Following this two-month period, the right to dispute a bill is permanently waived for any and all reasons including but not limited to, (a) errors, (b) omissions, (c) Agent's actions, and (d) the Operating Committee's decisions, Agreement interpretations and direction in the administration of the Agreement. Any amounts collected or reimbursed due to such disputes shall not include interest.

## **ARTICLE X FORCE MAJEURE**

**10.1 Events Excusing Performance.** No Party shall be liable to another Party for or on account of any loss, damage, injury, or expense resulting from or arising out of a delay or failure to perform, either in whole or in part, any of the agreements, covenants, or obligations made by or imposed upon the Parties by this Agreement, by reason of or through strike, work stoppage of labor, failure of contractors or suppliers of materials (including fuel, consumables or other goods and services), failure of equipment, environmental restrictions, riot, fire, flood, ice, invasion, civil war, commotion, insurrection, military or usurped power, order of any court or regulatory agency granted in any *bona fide* legal proceedings or action, or of any civil or military

authority either *de facto* or *de jure*, explosion, Act of God or the public enemies, or any other cause reasonably beyond its control and not attributable to its neglect. A Party experiencing such a delay or failure to perform shall use due diligence to remove the cause or causes thereof; however, no Party shall be required to add to, modify or upgrade any facilities, or to settle a strike or labor dispute except when, according to its own best judgment, such action is advisable.

## **ARTICLE XI DELIVERY POINTS**

**11.1 Delivery Points.** All electric energy delivered under this Agreement shall be of the character commonly known as three-phase sixty-cycle energy, and shall be delivered at the various points where the transmission systems of the Operating Companies are interconnected, either directly or through transmission facilities of third parties, at the nominal unregulated voltage designated for such points, and at such other points and voltages as may be determined and agreed upon by the Operating Companies.

## **ARTICLE XII GENERAL**

**12.1 Adherence to Industry Standards.** The Parties agree to make their best efforts to conform to Industry Standards as they affect the implementation of and conduct pertaining to this Agreement.

**12.2 No Third Party Beneficiaries.** This Agreement does not create rights of any character whatsoever in favor of any person, corporation, association, entity or power supplier, other than the Parties, and the obligations herein assumed by the Parties are solely for the use and benefit of the Parties. Nothing in this Agreement shall be construed as permitting or vesting, or attempting to permit or vest, in any person, corporation, association, entity or power supplier,

other than the Parties, any rights hereunder or in any of the resources or facilities owned or controlled by the Parties or the use thereof.

**12.3 Waivers.** Any waiver at any time by a Party of its rights with respect to a 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.

**12.4 Successors and Assigns.** This Agreement shall inure to the benefit of and be binding upon the Parties only, and their respective successors and assigns, and shall not be assignable by any Party without the written consent of the other Parties except to a successor in the operation of its properties by reason of a reorganization to comply with state or federal restructuring requirements, or a merger, consolidation, sale or foreclosure whereby substantially all such properties are acquired by or merged with those of such a successor.

**12.5 Liability and Indemnification.** SUBJECT TO ANY APPLICABLE STATE OR FEDERAL LAW THAT MAY SPECIFICALLY RESTRICT LIMITATIONS ON LIABILITY, EACH PARTY (AN "INDEMNIFYING PARTY") SHALL RELEASE, INDEMNIFY, AND HOLD HARMLESS THE OTHER PARTIES (EACH AN "INDEMNIFIED PARTY"), THEIR DIRECTORS, OFFICERS AND EMPLOYEES FROM AND AGAINST ANY AND ALL LIABILITY FOR LOSS, DAMAGE OR EXPENSE (1) ALLEGED TO ARISE FROM, OR BE INCIDENTAL TO, INJURY TO PERSONS AND/OR DAMAGE TO PROPERTY IN CONNECTION WITH THE INDEMNIFYING PARTY'S FACILITIES OR THE PRODUCTION OR TRANSMISSION OF ELECTRIC ENERGY BY OR THROUGH THE INDEMNIFYING PARTY'S FACILITIES OR (2) RELATED TO PERFORMANCE OR NON-

PERFORMANCE OF THIS AGREEMENT OR (3) RELATED TO ANY NEGLIGENCE ARISING UNDER THIS AGREEMENT. IN NO EVENT SHALL ANY PARTY BE LIABLE TO ANOTHER PARTY FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES WITH RESPECT TO ANY CLAIM ARISING OUT OF THIS AGREEMENT.

**12.6 Headings.** The descriptive headings of the Articles, Sections and Service Schedules of this Agreement are used for convenience only, and shall not modify or restrict any of the terms and provisions thereof.

**12.7 Notice.** Any notice or demand for performance required or permitted under any of the provisions of this Agreement shall be deemed to have been given on the date such notice, in writing, is deposited in the U.S. mail, postage prepaid, certified or registered mail, addressed to the Parties at their principal place of business at 1 Riverside Plaza, Columbus, Ohio 43215, or in such other form or to such other address as the Parties may stipulate.

**12.8 Interpretation.** In this Agreement: (a) unless otherwise specified, references to any Article or Section are references to such Article or Section of this Agreement; (b) the singular includes the plural and the plural includes the singular; (c) unless otherwise specified, each reference to a requirement of any governmental entity or regional transmission organization includes all provisions amending, modifying, supplementing or replacing such governmental entity or regional transmission organization from time to time; (d) the words “including,” “includes” and “include” shall be deemed to be followed by the words “without limitation”; (e) unless otherwise specified, each reference to any tariff or agreement includes all amendments, modifications, supplements, and restatements made to such tariff or agreement from time to time which are not prohibited by this Agreement; (f) the descriptive headings of the various Articles

and Sections of this Agreement have been inserted for convenience of reference only and shall in no way modify or restrict the terms and provisions thereof; and (g) “herein,” “hereof,” “hereto” and “hereunder” and similar terms refer to this Agreement as a whole.

### **ARTICLE XIII REGULATORY APPROVAL**

**13.1 Regulatory Authorization.** This Agreement is subject to and conditioned upon its approval or acceptance for filing without material condition or modification by the Commission. In the event that this Agreement is not so approved or accepted for filing in its entirety or without conditions or modifications unacceptable to any Party, or the Commission subsequently modifies this Agreement upon complaint or upon its own initiative (as provided for in Section 13.2), any Party may, irrespective of the notice provisions in Section 2.1, withdraw from this Agreement by giving thirty (30) days’ advance written notice to the other Parties.

**13.2 Changes.** It is contemplated by the Parties that it may be appropriate from time to time to change, amend, modify, or supplement this Agreement, including the Service Schedules and any other attachments that may be made a part of this Agreement, to reflect changes in operating practices or costs of operations or for other reasons. Any such changes to this Agreement shall be in writing executed by the Parties and subject to approval or acceptance for filing by the Commission.



**IN WITNESS WHEREOF**, the Parties have caused this Agreement to be executed and attested by their duly authorized officers on the day and year first above written.

**APPALACHIAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**INDIANA MICHIGAN POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**KENTUCKY POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**WHEELING POWER COMPANY**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**AMERICAN ELECTRIC POWER SERVICE CORPORATION**

By: \_\_\_\_\_

Title: \_\_\_\_\_

**SERVICE SCHEDULE A  
COLLECTIVE PARTICIPATION IN THE  
FIXED RESOURCE REQUIREMENT ALTERNATIVE**

**A1– Duration.** This Service Schedule A shall become effective and binding when the Agreement of which it is a part becomes effective, and shall continue in full force and effect throughout the duration of the Agreement unless terminated or suspended.

**A2 – Availability of Service.** This Service Schedule A governs the administration and settlement of capacity during such times that multiple Operating Companies are participating, on a collective basis, in the Fixed Resource Requirement alternative.

**A3 – Delivery Year and Post-Delivery Year Settlement.** During a given PJM planning year (i.e., the delivery year), the Agent will manage the capacity resources needed to meet the combined Operating Companies' capacity obligations and commitments to PJM.

If capacity resource performance charges are assessed by PJM for a given delivery year, the total net charge will be allocated among the Operating Companies ratably in proportion to each Operating Company's contribution to the total charge, taking into account the effect of collective participation of the Operating Companies in the Fixed Resource Requirement alternative. Each Operating Company's contribution to the total net charge will be determined by the Agent by computing a total MW position for each Operating Company by subtracting its total capacity obligation in MWs from its total capacity resources in MWs. This result will be further adjusted by adding or subtracting as applicable the net total MWs of actual under-performance or over-performance of each Operating Company's capacity resources during the delivery year as computed by PJM. Any Operating Company with a resulting net short MW position, meaning that its capacity obligation MWs are greater than its capacity resource MWs including any MWs of over-performance or under-performance, will be allocated a share of the

total net performance charge from PJM based on the Operating Company's net short MW position. Any performance charge not allocated as set forth above will be directly assigned to the Operating Company that caused the performance charge.

## **SERVICE SCHEDULE B GENERATION HEDGE TRANSACTIONS**

**B1 – Duration.** This Service Schedule B shall become effective and binding when the Agreement of which it is a part becomes effective, and shall continue in full force and effect throughout the duration of the Agreement unless terminated or suspended.

**B2 – Service.** This Service Schedule B governs energy-related Off-System Transactions made pursuant to Section 7.5.4 of the Agreement that are associated with Generation Hedge Transactions as defined in Section 1.5. The total monthly net costs and revenues from the settlement of Generation Hedge Transactions will be allocated among the Operating Companies ratably in proportion to the total of each Operating Company's surplus MWhs for the month, as determined by the Agent. Surplus MWhs will be computed as the total of all MWs in hours in which an Operating Company's MW output of its generation assets and energy purchases exceeded that Operating Company's Internal Load.

If the above allocation would result in any Operating Company being allocated revenues or costs associated with more than one hundred and fifteen percent (115%) of its monthly surplus MWhs as computed above, such excess(es) above that amount will be allocated to all of the Operating Companies ratably in proportion to the sum of each Operating Company's hourly MW output of its generation assets for the month.

## **SERVICE SCHEDULE C TRADING TRANSACTIONS**

**C1 – Duration.** This Service Schedule C shall become effective and binding when the Agreement of which it is a part becomes effective, and shall continue in full force and effect throughout the duration of the Agreement unless terminated or suspended.

**C2 – Service.** This Service Schedule C governs the financial allocation and settlement of Off-System Transactions made pursuant to Section 7.5.4 of the Agreement that are associated with Trading Transactions as defined in Section 1.18. All Trading Transactions settled for a given month will be allocated among the Operating Companies ratably in proportion to each Operating Company's total common shareholder equity balance. The total common shareholder equity balance for each Operating Company as of the end of the previous calendar year will be as stated in the FERC Form 1, currently page 112 (Total Proprietary Capital). These balances will then be applied to allocate settled Trading Transactions among the Operating Companies during the subsequent twelve-month period beginning June 1 and ending May 31.

**Execution Version**

**AMENDED AND RESTATED UREA HANDLING AGREEMENT**

This Urea Handling Agreement (this "Agreement") is entered into by and among **Indiana Michigan Power Company** ("I&M" or "Operator"), **Kentucky Power Company** ("KPCo") and **Appalachian Power Company** ("APCo"), effective on the 16<sup>th</sup> day of December, 2013 (the "Effective Date"). APCo and KPCo may also be referred to herein individually as a "User" or collectively as the "Users."

**RECITALS**

**WHEREAS**, I&M owns and operates the Lakin Urea Terminal, a urea transloading facility located on the Ohio River at Lakin, West Virginia that is capable of unloading urea delivered by barge, storing unloaded urea and loading it upon trucks for delivery to coal-fired power plants operated by the Users, other affiliates of American Electric Power Company, Inc. and third parties (the "Terminal").

**WHEREAS**, APCo and KPCo each own and operate one or more coal-fired electric generating plants that consume urea.

**WHEREAS**, APCo and KPCo have requested I&M to provide urea handling services for them at the Terminal as hereinafter described and I&M is prepared to perform such services as and when requested on the terms and conditions set forth herein.

**NOW, THEREFORE**, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I&M, APCo and KPCo agree as follows:

**1. Urea Handling Services.** Operator shall (i) unload urea from barges delivering urea to the Terminal, (ii) transfer unloaded urea to the urea storage dome, and (iii) load urea onto trucks arranged by User (such services are collectively referred to as the "Urea Handling Services").

**2. Scheduling Notice.** Operator shall perform the Urea Handling Services for a User at such times and for such quantities of urea as such User specifies by notice to Operator. The notice shall specify the date, time, and quantity (tonnage) of urea to be loaded upon trucks

for delivery to User. Operator shall have no responsibility or liability for any demurrage or other charges imposed by carriers delivering urea to the Terminal.

**3. Inventory; Fees and Adjustments.**

a. Urea Handling Services Fee. Operator shall invoice each User at the end of each month for Urea Handling Services provided during such month for each ton (2,000 pounds avoirdupois weight) of urea loaded onto trucks for delivery to User. User shall settle the invoiced Urea Handling Services Fee through the AEP money pool within thirty (30) days following receipt of each invoice. The standard fee for Urea Handling Services (the "Urea Handling Services Fee") shall consist of Operator's estimate of its fully loaded cost to perform the Urea Handling Services on a per ton basis, which shall include an after-tax carrying charge equal to I&M's return on equity set by the Indiana Utility Regulatory Commission on Operator's investment in the Terminal and determined in accordance with Appendix A attached hereto, and an adder for income taxes at the prevailing statutory rate, less revenue for similar urea handling services performed by Operator for any non-affiliates. The Urea Handling Services Fee shall be revised from time to time by the Operator to reflect its estimated fully loaded cost to perform the Urea Handling Services and to reflect any changes in I&M's return on equity. Users shall provide Operator annually with a reasonably detailed forecast of its requirements for Urea Handling Services to assist in the computation of the Urea Handling Services Fee.

b. Urea Handling Services Fee Quarterly True-Up. Within sixty (60) days after the end of each calendar quarter year, Operator shall perform a true-up of the Urea Handling Services Fee paid by the Users during such calendar quarter (each a "True-Up Quarter") by taking (i) Operator's total actual costs allocable to the Terminal for all Urea Handling Services and similar urea handling services provided to non-affiliates during the True-Up Quarter including, but not limited to, lease and rental costs, federal income taxes at the applicable statutory rate and subtracting therefrom (ii) the total revenues accrued by Operator during the True-Up Quarter from AEP unregulated affiliates and other non-affiliates and (iii) dividing the difference between (i) and (ii) by the total number of tons loaded by Operator during the True-Up Quarter for the Users (the "Adjusted Fee"). If the aggregate Urea Handling Services Fees payable or paid by a User during a True-Up Quarter exceeds the Adjusted Fee multiplied by the total number of transferred tons loaded for User during the True-Up Quarter, the amount of the difference shall be credited to the account of User and applied against subsequent invoices

payable by User. If the Adjusted Fee multiplied by the total transferred tons loaded for User during a True-Up Quarter exceeds the total amount of the Urea Handling Services Fees payable or paid by User during the True-Up Quarter, the amount of the difference shall be paid by User to Operator when User receives an invoice for such adjustment.

**4. Accounting and Auditing.** Operator shall keep and maintain such books and records as are necessary to support the charges for Urea Handling Services and in sufficient detail to satisfy applicable regulatory requirements (the "Records"). Operator shall provide Users access to the Records at all reasonable times. Operator shall maintain the Records in accordance with good record management practices.

**5. Termination.**

a. Any User may withdraw from this Agreement upon thirty (30) days written notice to the Operator.

b. Operator may terminate this Agreement upon sixty (60) days written notice to the Users.

c. The performance of the obligations of each party shall be subject to the continued effectiveness of all governmental regulatory authorizations necessary to permit such party to perform its duties and obligations hereunder. In the event that such authorization is revoked or withdrawn, then this Agreement shall cease to be effective as to such party; provided, however, that such ineffectiveness shall not affect the obligations of any other party hereto unless the affected party is the Operator in which case this Agreement shall terminate.

d. If this Agreement becomes effective as to APCo pursuant to paragraph number 6, it shall terminate as to APCo on the fifth anniversary of its receipt of any regulatory approvals required to participate in this Agreement.

**6. APCo Delayed Effectiveness.** This Agreement shall not become effective as to APCo until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Agreement. This provision shall not affect the obligations of any other party hereto.

**7. I&M Delayed Effectiveness.** Pursuant to IC 8-1-2-49(g), this Agreement shall not become effective as to I&M until it has been filed with the Indiana Utility Regulatory Commission.

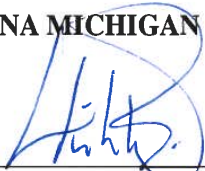


**8. Counterparts.** This Agreement may be executed in any number of counterparts, and each such executed counterpart (including electronically transmitted counterparts) shall be, and shall be deemed to be, an original, but all of which shall constitute, and shall be deemed to constitute, in the aggregate, but one and the same instrument.


**9. Entire Agreement.** This Agreement constitutes the entire agreement among the parties hereto with respect to the subject matter hereof, supersedes and is in full substitution for any and all prior agreements and understandings among them relating to such subject matter, and no party hereto shall be liable or bound to any other party hereto in any manner with respect to such subject matter by any warranties, representations, indemnities, covenants, or agreements except as specifically set forth herein and therein.

Executed as of the Effective Date.


**INDIANA MICHIGAN POWER COMPANY**

By:   
Timothy K. Light, Vice President

**APPALACHIAN POWER COMPANY**

By:   
Timothy K. Light, Vice President

**KENTUCKY POWER COMPANY**

By:   
Timothy K. Light, Vice President

Appendix A

Component		Capitalization @12/31/XX (000)	Percent of Total	Annual Cost		After-Tax Rate of Return	Before-Tax	
							Weighted Percent	In Dollars
Long Term Debt	A	1,532,198	45.97 %	5.70%	C	2.62 %	2.62 %	81,185
Preferred Stock		0	0.00 %	0.00%	C	0.00 %	0.00 %	0
Common Stock	B	1,801,131	54.03 %	10.20%	D	5.51 %	8.48 %	262,628 E
<b>Total</b>		<b>3,333,329</b>	<b>100.00 %</b>			<b>8.13 %</b>	<b>11.10 %</b>	<b>343,813</b>

The amounts above are examples and should be updated as specified below.

A) Includes long term debt due in one year and is net of unamortized debt premium and discount, unamortized debt expense and losses on re-acquired debt. It excludes spent nuclear fuel disposal costs. This figure should be updated annually using actual data from the I&M General Ledger.

B) Common equity includes premium on preferred stock and excludes undistributed subsidiary earnings. This figure should be updated annually using actual data from the I&M General Ledger.

C) Annual cost of Long-Term Debt is updated annually using actual data from the I&M General Ledger.

D) Based on I&M return on equity in effect as determined by the Indiana Utility Regulatory Commission from time to time (e.g. upon resolution of a base rate case, etc.)

E) Includes FIT adder (i.e. "gross-up") calculated at the prevailing statutory tax rate (currently 35%).

**Execution Version**

**AMENDED AND RESTATED UREA HANDLING AGREEMENT**

This Urea Handling Agreement (this "Agreement") is entered into by and among **Indiana Michigan Power Company** ("I&M" or "Operator"), **Kentucky Power Company** ("KPCo") and **Appalachian Power Company** ("APCo"), effective on the 16<sup>th</sup> day of December, 2013 (the "Effective Date"). APCo and KPCo may also be referred to herein individually as a "User" or collectively as the "Users."

**RECITALS**

**WHEREAS**, I&M owns and operates the Lakin Urea Terminal, a urea transloading facility located on the Ohio River at Lakin, West Virginia that is capable of unloading urea delivered by barge, storing unloaded urea and loading it upon trucks for delivery to coal-fired power plants operated by the Users, other affiliates of American Electric Power Company, Inc. and third parties (the "Terminal").

**WHEREAS**, APCo and KPCo each own and operate one or more coal-fired electric generating plants that consume urea.

**WHEREAS**, APCo and KPCo have requested I&M to provide urea handling services for them at the Terminal as hereinafter described and I&M is prepared to perform such services as and when requested on the terms and conditions set forth herein.

**NOW, THEREFORE**, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, I&M, APCo and KPCo agree as follows:

**1. Urea Handling Services.** Operator shall (i) unload urea from barges delivering urea to the Terminal, (ii) transfer unloaded urea to the urea storage dome, and (iii) load urea onto trucks arranged by User (such services are collectively referred to as the "Urea Handling Services").

**2. Scheduling Notice.** Operator shall perform the Urea Handling Services for a User at such times and for such quantities of urea as such User specifies by notice to Operator. The notice shall specify the date, time, and quantity (tonnage) of urea to be loaded upon trucks

for delivery to User. Operator shall have no responsibility or liability for any demurrage or other charges imposed by carriers delivering urea to the Terminal.

**3. Inventory; Fees and Adjustments.**

a. Urea Handling Services Fee. Operator shall invoice each User at the end of each month for Urea Handling Services provided during such month for each ton (2,000 pounds avoirdupois weight) of urea loaded onto trucks for delivery to User. User shall settle the invoiced Urea Handling Services Fee through the AEP money pool within thirty (30) days following receipt of each invoice. The standard fee for Urea Handling Services (the "Urea Handling Services Fee") shall consist of Operator's estimate of its fully loaded cost to perform the Urea Handling Services on a per ton basis, which shall include an after-tax carrying charge equal to I&M's return on equity set by the Indiana Utility Regulatory Commission on Operator's investment in the Terminal and determined in accordance with Appendix A attached hereto, and an adder for income taxes at the prevailing statutory rate, less revenue for similar urea handling services performed by Operator for any non-affiliates. The Urea Handling Services Fee shall be revised from time to time by the Operator to reflect its estimated fully loaded cost to perform the Urea Handling Services and to reflect any changes in I&M's return on equity. Users shall provide Operator annually with a reasonably detailed forecast of its requirements for Urea Handling Services to assist in the computation of the Urea Handling Services Fee.

b. Urea Handling Services Fee Quarterly True-Up. Within sixty (60) days after the end of each calendar quarter year, Operator shall perform a true-up of the Urea Handling Services Fee paid by the Users during such calendar quarter (each a "True-Up Quarter") by taking (i) Operator's total actual costs allocable to the Terminal for all Urea Handling Services and similar urea handling services provided to non-affiliates during the True-Up Quarter including, but not limited to, lease and rental costs, federal income taxes at the applicable statutory rate and subtracting therefrom (ii) the total revenues accrued by Operator during the True-Up Quarter from AEP unregulated affiliates and other non-affiliates and (iii) dividing the difference between (i) and (ii) by the total number of tons loaded by Operator during the True-Up Quarter for the Users (the "Adjusted Fee"). If the aggregate Urea Handling Services Fees payable or paid by a User during a True-Up Quarter exceeds the Adjusted Fee multiplied by the total number of transferred tons loaded for User during the True-Up Quarter, the amount of the difference shall be credited to the account of User and applied against subsequent invoices

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**4. Accounting and Auditing.** Operator shall keep and maintain such books and records as are necessary to support the charges for Urea Handling Services and in sufficient detail to satisfy applicable regulatory requirements (the "Records"). Operator shall provide Users access to the Records at all reasonable times. Operator shall maintain the Records in accordance with good record management practices.

**5. Termination.**

a. Any User may withdraw from this Agreement upon thirty (30) days written notice to the Operator.

b. Operator may terminate this Agreement upon sixty (60) days written notice to the Users.

c. The performance of the obligations of each party shall be subject to the continued effectiveness of all governmental regulatory authorizations necessary to permit such party to perform its duties and obligations hereunder. In the event that such authorization is revoked or withdrawn, then this Agreement shall cease to be effective as to such party; provided, however, that such ineffectiveness shall not affect the obligations of any other party hereto unless the affected party is the Operator in which case this Agreement shall terminate.

d. If this Agreement becomes effective as to APCo pursuant to paragraph number 6, it shall terminate as to APCo on the fifth anniversary of its receipt of any regulatory approvals required to participate in this Agreement.

**6. APCo Delayed Effectiveness.** This Agreement shall not become effective as to APCo until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Agreement. This provision shall not affect the obligations of any other party hereto.


**7. I&M Delayed Effectiveness.** Pursuant to IC 8-1-2-49(g), this Agreement shall not become effective as to I&M until it has been filed with the Indiana Utility Regulatory Commission.

**8. Counterparts.** This Agreement may be executed in any number of counterparts, and each such executed counterpart (including electronically transmitted counterparts) shall be, and shall be deemed to be, an original, but all of which shall constitute, and shall be deemed to constitute, in the aggregate, but one and the same instrument.


**9. Entire Agreement.** This Agreement constitutes the entire agreement among the parties hereto with respect to the subject matter hereof, supersedes and is in full substitution for any and all prior agreements and understandings among them relating to such subject matter, and no party hereto shall be liable or bound to any other party hereto in any manner with respect to such subject matter by any warranties, representations, indemnities, covenants, or agreements except as specifically set forth herein and therein.

Executed as of the Effective Date.

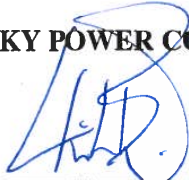
**INDIANA MICHIGAN POWER COMPANY**

By:  \_\_\_\_\_  
Timothy K. Light, Vice President

**APPALACHIAN POWER COMPANY**

By:  \_\_\_\_\_  
Timothy K. Light, Vice President

**KENTUCKY POWER COMPANY**

By:  \_\_\_\_\_  
Timothy K. Light, Vice President

Appendix A

Component		Capitalization @12/31/XX (000)	Percent of Total	Annual Cost		After-Tax Rate of Return	Before-Tax	
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Long Term Debt	A	1,532,198	45.97 %	5.70%	C	2.62 %	2.62 %	81,185
Preferred Stock		0	0.00 %	0.00%	C	0.00 %	0.00 %	0
Common Stock	B	1,801,131	54.03 %	10.20%	D	5.51 %	8.48 %	262,628 E
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The amounts above are examples and should be updated as specified below.

A) Includes long term debt due in one year and is net of unamortized debt premium and discount, unamortized debt expense and losses on re-acquired debt. It excludes spent nuclear fuel disposal costs. This figure should be updated annually using actual data from the I&M General Ledger.

B) Common equity includes premium on preferred stock and excludes undistributed subsidiary earnings. This figure should be updated annually using actual data from the I&M General Ledger.

C) Annual cost of Long-Term Debt is updated annually using actual data from the I&M General Ledger.

D) Based on I&M return on equity in effect as determined by the Indiana Utility Regulatory Commission from time to time (e.g. upon resolution of a base rate case, etc.)

E) Includes FIT adder (i.e. "gross-up") calculated at the prevailing statutory tax rate (currently 35%).

Coal

AEP SYSTEM RAIL CAR USE AGREEMENT

THIS AGREEMENT, dated as of this 1st day of April 1982, among Indiana & Michigan Electric Company ("IMECo"), an Indiana corporation, Appalachian Power Company ("APCo"), a Virginia corporation, and Ohio Power Company ("OPCo"), an Ohio corporation (hereinafter referred to collectively as the Parties, or singularly as a Party), and such other direct or indirect subsidiary company of American Electric Power Company, Inc. as shall become a Party hereto with the consent of the afore-named Parties by executing and delivering a counterpart of this Agreement to each of the Parties hereto.

WITNESSETH THAT:

WHEREAS, each of the Parties to this Agreement currently leases from non-affiliated persons open hopper railroad cars which are used to transport coal from both affiliated and non-affiliated suppliers to various coal-fired electric generating plants within the American Electric Power System; and

WHEREAS, it is contemplated that each of the afore-named Parties may from time to time acquire, by lease or otherwise, additional or replacement open hopper railroad cars which would then become a part of the fleet of such rail cars maintained by such Parties; and

WHEREAS, the Parties recognize that it is desirable that open hopper railroad cars currently leased or to be acquired by lease or otherwise be deployed as a common fleet



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within the American Electric Power System for the mutual benefit of all Parties hereto, without regard to lease ownership by a specific Party, but on the basis of proximity and availability for use, and other dispatching considerations;

NOW, THEREFORE, in consideration of the foregoing and the covenants and agreements of the Parties hereto as herein stated, each Party hereby severally agrees to make available to any other Party open hopper railroad cars now leased or hereafter acquired by lease or otherwise by such Party for use in transporting coal for the benefit of such other Party, subject to the terms and conditions of and in the manner specified in this Agreement, as it may, from time to time, be amended by further agreement of the Parties.

#### ARTICLE I

##### TERM

The term of this Agreement shall continue as to each Party until terminated by such Party on not less than six (6) months' written notice to all other Parties hereto, or, without regard to such prior notice, at the time any such Party shall cease to be a subsidiary, directly or indirectly, of American Electric Power Company, Inc. or its successors.

#### ARTICLE II

##### DEFINITIONS

The following terms, as used in this Agreement, shall have the respective meanings set forth in this Article,

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unless otherwise defined for a particular purpose or unless the context requires a different meaning:

a. AEPX Car means, without distinction based on ownership (by leasehold or otherwise), any open hopper railroad car, and in the plural, all of those open hopper railroad cars, now leased or hereafter acquired by the Parties hereto for use in transporting coal from affiliated and non-affiliated suppliers to electric generating stations within the American Electric Power System or to storage pending later delivery to such electric generating stations.

b. Transportation Department refers to the Coal Transportation Department of the American Electric Power Service Corporation Fuel Supply Department.

c. Ownership, as the term is applied to any AEPX Car, includes ownership by lease, and the Owner of any AEPX Car refers to any Party to this Agreement who owns, by lease or otherwise, such AEPX Car.

d. Use, as the term is applied to any AEPX Car, means the benefit derived from a service movement (i.e., the transportation of coal) using such AEPX Car, and a User of an AEPX Car refers to any Party to this Agreement, or to any other person who is not a Party hereto, who derives such benefit.

### ARTICLE III

#### ESTABLISHMENT OF AEPX CAR COMMON FLEET

Subject to the terms and conditions contained in

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Articles IV and V hereof, each Party to this Agreement, and each person who may hereafter become a Party (to the extent any such Party is an Owner of AEPX Cars), hereby agrees to make available to any other Party and to any person who is not a Party hereto AEPX Cars which such Party owns, at such times and for such uses as the Transportation Department, in its sole discretion, may direct.

It is further agreed that the Transportation Department shall have full authority, as agent for each of the Parties hereto, to identify and select from among the fleet of available AEPX Cars those that may be made available for use by a Party, in accordance with Article IV, or to any other User who is not a Party, in accordance with Article V. The Parties shall reimburse American Electric Power Service Corporation, in accordance with the terms of their respective service agreements, for services performed or costs incurred by the Transportation Department in furtherance of this Agreement.

#### ARTICLE IV

##### AFFILIATE USE OF AEPX CARS

A Party (the User) to this Agreement who uses an AEPX Car owned by another Party (the Owner) to deliver coal directly to any of the User's generating plant sites, shall pay to the Owner a daily usage charge that is equivalent to the Owner's daily lease cost for any such AEPX Car, and a mileage maintenance charge, determined by the Transportation Department from data provided by the Computerized Freight Car

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Control System of the Association of American Railroads, if available, otherwise from data developed by the Transportation Department, such charge representing the amount accrued by the Owner in its Maintenance Accrual Accounts to provide for projected car maintenance expenses.

If an AEPX Car is used by an affiliated company in the AEP System to deliver coal into storage at an AEP System coal transfer terminal for future delivery to a then undetermined AEP System generating station, daily usage and mileage charges shall be paid initially by the operator of such transfer terminal, and accrued by such operator as a part of the inventory value of the stored coal, and shall, depending upon ultimate delivery of the stored coal, be absorbed by the operator of that transfer terminal, or passed through to such other AEP System company as may take delivery of such coal.

#### ARTICLE V

##### NON-AFFILIATE USE OF AEPX CARS

The Transportation Department shall have authority, as agent for each Party to this Agreement, to enter into subleasing agreements with non-AEP System Users for the use of such AEPX Cars. Each sublease of an AEPX Car shall provide for the User to pay a daily usage charge and mileage charge in such amounts and at such rates as may be determined by negotiation between the Transportation Department and any such User. Any sublease entered into by

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the Transportation Department on behalf of an Owner shall also specify that the sublessee is to pay the applicable daily usage charge directly to the Owner of an AEPX Car subject to any such sublease and may specify that mileage charges are to be paid either to such Owner or to the Transportation Department, which shall be responsible for determining, based on car ownership, the amount to be credited to a particular Owner.

#### ARTICLE VI

##### AEPX CAR INSURANCE AND TAX CHARGES

The Transportation Department, on behalf of the Parties hereto, shall be responsible for the filing of all tax returns and verification of all tax bills, for prorating total tax liabilities among the Parties to this Agreement based on usage of AEPX Cars and for billing (and collecting from) non-affiliated sublessees taxes applicable to usage of AEPX Cars by such sublessees when the subleases specify such manner of recovery. Each Party to this Agreement shall arrange for adequate insurance coverage with respect to AEPX Cars owned by it, in accordance with applicable requirements of any lease, and shall be responsible for complying with all other terms and conditions contained in any lease.

#### ARTICLE VII

##### RECORDS AND AUDITS

The Transportation Department and the General Office Accounting Department of each Owner Party shall keep accurate and satisfactory records and ledgers and all

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other data which will allow the Parties hereto to carry out the purposes of this Agreement. Each Party shall have the right at any time, upon written notice to the Transportation Department, to examine the Transportation Department's records for the purpose of verifying the data used or to be used in determining the amounts payable by or owing to such Party hereunder.

#### ARTICLE VIII

##### REGULATORY APPROVALS

The performance of the obligations of each Party hereto shall be subject to the receipt and continued effectiveness of all authorizations of governmental regulatory authorities necessary at the time to permit such Party to perform its duties and obligations hereunder. In the event that the performance by any Party shall not be authorized by governmental regulatory authorities whose authorization is necessary for such performance, or in the event that any such authorization once given, shall be revoked or withdrawn, then this Agreement shall not become effective, or shall cease to be effective, as the case may be, as to such Party, but such ineffectiveness shall not affect the obligations of any other Party hereto.

#### ARTICLE IX

##### FURTHER AGREEMENTS

The Parties hereto may enter into a further agreement or agreements setting forth detailed terms and provisions relating to the performance by them of their respective obligations hereunder. No agreement entered into

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pursuant to this Article IX shall, however, alter to any material degree the obligations of any Party to this Agreement in any manner inconsistent with any of the foregoing sections of this Agreement.

IN WITNESS WHEREOF, the Parties have caused this Agreement to be signed by their respective authorized officers as of the day and year first above written.

APPALACHIAN POWER COMPANY  
40 Franklin Road  
Roanoke, Virginia 24009

By:  \_\_\_\_\_  
Vice President

INDIANA & MICHIGAN ELECTRIC COMPANY  
One Summit Square  
Fort Wayne, Indiana 46801

By:  \_\_\_\_\_  
Vice President

OHIO POWER COMPANY  
301 Cleveland Avenue, S.W.  
Canton, Ohio 44702

By:  \_\_\_\_\_  
Vice President

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CONSENT TO AGENCY

The American Electric Power Service Corporation, a New York corporation and an associate company of each of the Parties hereto in the American Electric Power System, hereby agrees to render services in furtherance of this Agreement, in accordance with the terms of its service agreement with each Party hereto.

AMERICAN ELECTRIC POWER  
SERVICE CORPORATION  
180 East Broad Street  
Columbus, Ohio 43215

By: Frank D. Owen  
Vice Chairman

Dated as April 1, 1982.



AMENDMENT NO. 1 AND CONSENT  
TO  
AEP SYSTEM RAIL CAR USE AGREEMENT

This AMENDMENT and CONSENT is dated as of the 1st day of July,  
2006.

WHEREAS, that certain AEP System Rail Car Use Agreement dated as of April 1, 1982 ("Rail Car Use Agreement"), is among Indiana & Michigan Electric Company, now Indiana Michigan Power Company, an Indiana corporation ("I&M"), Appalachian Power Company, a Virginia corporation ("APCO"), and Ohio Power Company, an Ohio corporation ("OPCO"), all three of which companies are subsidiaries of American Electric Power Company, Inc., a New York corporation ("AEP") and therefore affiliates.

WHEREAS, the Rail Car Use Agreement provides that other direct or indirect subsidiary companies of AEP may become a party to the Rail Car Use Agreement with the consent of the aforementioned parties to the Rail Car Use Agreement and by executing and delivering a counterpart of the Rail Car Use Agreement to each of the parties thereto.

WHEREAS, Public Service Company of Oklahoma, an Oklahoma corporation ("PSO"), and Southwestern Electric Power Company, a Delaware corporation ("SWEPCO"), each of which is an indirect subsidiary of AEP, desire to become a party to the Rail Car Use Agreement;

WHEREAS, each of I&M, APCO, and OPCO does hereby consent to the addition of PSO and SWEPCO as parties to the Rail Car Use Agreement;

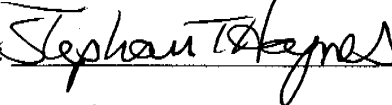
NOW THEREFORE, in consideration of the foregoing,

1. The Rail Car Use Agreement is hereby amended to add PSO and SWEPCO to the Rail Car Use Agreement.
2. PSO and SWEPCO hereby agree to abide by all of the terms and conditions of the Rail Car Use Agreement as are currently in effect.
3. APCO, I&M, and OPCO hereby consent to the addition of PSO and SWEPCO as parties to the Rail Car Use Agreement.
4. All other terms and conditions of the Rail Car Use Agreement, a copy of which is attached, remain in full force and effect.

IN WITNESS WHEREOF, the parties have caused this Amendment and Consent to be signed by their respective authorized officers as of the day and year first above written.

APPALACHIAN POWER COMPANY

By:



Its: Assistant Treasurer

INDIANA MICHIGAN POWER COMPANY

By: Stephan T. Haynes

Its: Assistant Treasurer

OHIO POWER COMPANY

By: Stephan T. Haynes

Its: Assistant Treasurer

PUBLIC SERVICE COMPANY OF OKLAHOMA

By: Stephan T. Haynes

Its: Assistant Treasurer

SOUTH WESTERN ELECTRIC POWER COMPANY

By: Stephan T. Haynes

Its: Assistant Treasurer

**AMENDMENT NO. 2 TO AEP  
SYSTEM RAIL CAR USE AGREEMENT**

This Amendment No. 2 to AEP System Rail Car Use Agreement (this "Amendment No. 2") is entered into by and among **Indiana Michigan Power Company ("I&M")**, **Appalachian Power Company (APCo)**, **Ohio Power Company (OPCo)**, **Southwestern Electric Power Company ("SWEPCO")**, **Public Service Company of Oklahoma ("PSO")** and **Kentucky Power Company ("KPCo")**, effective on the 12 day of September, 2013 (the "Effective Date").

WHEREAS, I&M, APCo, OPCo, SWEPCO and PSO are parties to that certain AEP System Rail Car Use Agreement dated April 1, 1982, as amended by Amendment No. 1 and Consent to AEP System Rail Car Use Agreement dated July 1, 2006 (the "Rail Car Use Agreement").

WHEREAS, KPCo, an indirect subsidiary of AEP, desires to become a party to the Rail Car Use Agreement.

WHEREAS, I&M, APCo, OPCo, SWEPCO, PSO and KPCo are indirect subsidiaries of American Electric Power Company, Inc. ("AEP").

WHEREAS, the Rail Car Use Agreement provides that other direct or indirect subsidiary companies of AEP may become a party to the Rail Car Use Agreement with the consent of the existing parties to the Rail Car Use Agreement and by executing and delivering a counterpart of the Rail Car Use Agreement to each of the parties thereto.


NOW THEREFORE, in consideration of the foregoing,

1. The Rail Car Use Agreement is hereby amended to add KPCo as a party.
2. KPCo hereby agrees to abide by all of the terms and conditions of the Rail Car Use Agreement.
3. APCo, I&M, OPCo, SWEPCO and PSO each consent to the addition of KPCo as a party to the Rail Car Use Agreement.
4. All other terms and conditions of the Rail Car Use Agreement as amended, a copy of which is attached, remain in full force and effect.

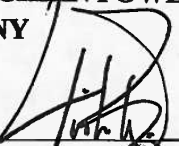
5. Pursuant to IC 8-1-2-49(g), this Amendment No. 2 shall not become effective as to I&M until it has been filed with the Indiana Utility Regulatory Commission.

Executed as of the Effective Date.

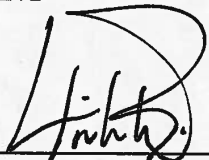
**OHIO POWER COMPANY**

By:   
\_\_\_\_\_  
Timothy K. Light, Vice President *RGL*

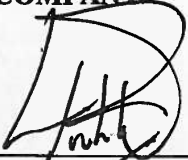
**APPALACHIAN POWER COMPANY**

By:   
\_\_\_\_\_  
Timothy K. Light, Vice President *RGL*


**INDIANA MICHIGAN POWER COMPANY**

By:   
\_\_\_\_\_  
Timothy K. Light, Vice President *RGL*

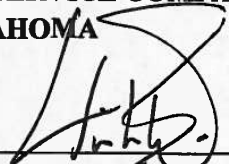
**SOUTHWESTERN ELECTRIC POWER COMPANY**

By:   
\_\_\_\_\_  
Timothy K. Light, Vice President *RGL*

**KENTUCKY POWER COMPANY**

By:   
\_\_\_\_\_  
Timothy K. Light, Vice President *RGL*

**PUBLIC SERVICE COMPANY OF OKLAHOMA**

By:   
\_\_\_\_\_  
Timothy K. Light, Vice President *RGL*

Appendix A

Component		Capitalization @12/31/XX (000)	Percent of Total	Annual Cost		After-Tax Rate of Return	Before-Tax	
							Weighted Percent	In Dollars
Long Term Debt	A	1,532,198	46.97 %	5.70%	C	2.62 %	2.62 %	81,185
Preferred Stock		0	0.00 %	0.00%	C	0.00 %	0.00 %	0
Common Stock	B	1,801,131	54.03 %	10.20%	D	5.51 %	8.48 %	282,628
<b>Total</b>		<b>3,333,329</b>	<b>100.00 %</b>			<b>8.13 %</b>	<b>11.10 %</b>	<b>343,813</b>

The amounts above are examples and should be updated as specified below.

- A) Includes long term debt due in one year and is net of unamortized debt premium and discount, unamortized debt expense and losses on re-acquired debt. It excludes spent nuclear fuel disposal costs. This figure should be updated annually using actual data from the I&M General Ledger.
- B) Common equity includes premium on preferred stock and excludes undistributed subsidiary earnings. This figure should be updated annually using actual data from the I&M General Ledger.
- C) Annual cost of Long-Term Debt is updated annually using actual data from the I&M General Ledger.
- D) Based on I&M return on equity in effect as determined by the Indiana Utility Regulatory Commission from time to time (e.g. upon resolution of a base rate case, etc.)
- E) Includes FIT adder (i.e. "gross-up") calculated at the prevailing statutory tax rate (currently 35%).

**AMERICAN ELECTRIC POWER COMPANY, INC. AND  
ITS CONSOLIDATED AFFILIATES  
TAX AGREEMENT UNDER TITLE 17, CHAPTER II  
OF THE CODE OF FEDERAL REGULATIONS PARAGRAPH  
(C) OF SECTION 250.45 REGARDING METHOD OF  
ALLOCATING CONSOLIDATED INCOME TAXES**

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The below listed affiliated companies, joining in the annual filing of a consolidated federal income tax return with American Electric Power Company, Inc., agree to allocate the consolidated annual net current federal income tax liability and/or benefit to the members of the consolidated group in accordance with the following procedures:

- ( 1) The consolidated regular federal income tax, exclusive of capital gains and preference taxes and before the application of general business credits including foreign tax credits, shall be apportioned among the members of the consolidated group based on corporate taxable income. Loss companies shall be included in the allocation, receiving a negative tax allocation which is similar to a separate return carryback refund, before considering general business credits, which would have resulted had the loss company historically filed a separate return.
- ( 2) The corporate taxable income of each member of the group shall be first reduced by its proportionate share of American Electric Power Company, Inc.'s (the holding company) tax loss (excluding the effects of extraordinary items which do not apply to the regulated business) in arriving at adjusted corporate taxable income for each member of the group with positive taxable income.
- ( 3) To the extent that the consolidated and corporate taxable incomes include material items taxed at rates other than the statutory tax rate (such as capital gains and preference items), the portion of the

consolidated tax attributable to these items shall be apportioned directly to the members of the group giving rise to such items.

- ( 4) General business credits, other tax credits, and foreign tax credits shall be equitably allocated to those members whose investments or contributions generates the tax credit.
- ( 5) If the tax credits can not be entirely utilized to offset the consolidated tax liability, the tax credit carryover shall be equitably allocated to those members whose investments or contributions generated the credit.
- ( 6) Should the consolidated group generate a net operating tax loss for a calendar year, the tax benefits of any resultant carryback refund shall be allocated proportionately to member companies that generated corporate tax losses in the year the consolidated net operating loss was generated. Any related loss of general business credits, shall be allocated to the member companies that utilized the credits in the prior year in the same proportion that the credit lost is to the total credit utilized in the prior year. A consolidated net operating tax loss carryforward shall be allocated proportionately to member companies that generated the original tax losses that gave rise to the consolidated net operating tax loss carryforward.
- ( 7) A member with a net positive tax allocation shall pay the holding company the net amount allocated, while a tax loss member with a net negative tax allocation shall receive current payment from the holding company in the amount of its negative allocation. The payment made to a member with a tax loss should equal the amount by which the consolidated tax is reduced by including the member's net corporate tax loss in the consolidated tax return. The holding company shall pay to the Internal Revenue Service the consolidated group's net current federal



income tax liability from the net of the receipts and payments.

- ( 8) No member of the consolidated group shall be allocated a federal income tax which is greater than the federal income tax computed as if such member had filed a separate return.
- ( 9) Prior to the 1991 tax year, CSW Leasing, Inc. and CSW Energy Inc. were excluded from the tax allocation pursuant to Rule 45(c)(4) and the tax benefits attributable to such companies' losses and credits were allocated to the Central and South West Corporation. These excluded companies retain separate return carryover rights for the losses and credits availed of by the parent corporation through the consolidated return. On future consolidated tax allocations, Central and South West Corporation shall pay such companies for the previously allocated tax benefits to the extent the companies are able to offset separate return corporate taxable income with such carryovers.
- (10) In the event the consolidated tax liability is subsequently revised by Internal Revenue Service audit adjustments, amended returns, claims for refund, or otherwise, such changes shall be allocated in the same manner as though the adjustments on which they are based had formed part of the original consolidated return using the tax allocation agreement which was in effect at that time.

Any current state tax liability and/or benefit associated with a state tax return involving more than one member of the consolidated group, shall be allocated to such members following the principles set forth above for current federal income taxes. Due to certain states utilizing a unitary approach, the consolidated return liability may exceed the sum of the liabilities computed for each company on a separate return basis. If this occurs, the excess of the consolidated liability over the sum of the separate return liabilities shall be allocated proportionally based on each member's contribution to the consolidated apportionment percentage. If additional tax is attributable to a significant transaction or event, such

additional tax shall be allocated directly to the members who are party to said transaction or event.

This agreement is subject to revision as a result of changes in federal and state tax law and relevant facts and circumstances.

The above procedures for apportioning the consolidated annual net current federal and state tax liabilities and expenses of American Electric Power Company, Inc. and its consolidating affiliates have been agreed to by each of the below listed members of the consolidated group as evidenced by the signature of an officer of each company.

<u>COMPANY</u>	<u>OFFICER'S SIGNATURE</u>
American Electric Power Company, Inc.	<u>/S/ W.L. Scott</u>
American Electric Power Service Corporation	<u>/S/ W.L. Scott</u>
AEP C&I Company, LLC	<u>/S/ Timothy A. King</u>
AEP Communications, Inc.	<u>/S/ W.L. Scott</u>
AEP Communications, LLC	<u>/S/ Jeffrey D. Cross</u>
AEP Credit, Inc.	<u>/S/ W.L. Scott</u>
AEP Delaware Investment Company	<u>/S/ Mark A. Pyle</u>
AEP Delaware Investment Company II	<u>/S/ Mark A. Pyle</u>
AEP Energy Management, LLC	<u>/S/ Jeffrey D. Cross</u>
AEP Energy Services, Inc.	<u>/S/ W.L. Scott</u>

AEP Energy Services Gas Holding Company	<u>/S/ Mark A. Pyle</u>
AEP Energy Services Investments, Inc.	<u>/S/ Mark A. Pyle</u>
AEP Energy Services Ventures, Inc.	<u>/S/ Mark A. Pyle</u>
AEP Energy Services Ventures II, Inc.	<u>/S/ Mark A. Pyle</u>
AEP Energy Services Ventures III, Inc.	<u>/S/ Mark A. Pyle</u>
AEP Fiber Ventures, LLC	<u>/S/ Timothy A. King</u>
AEP Gas Power GP, LLC	<u>/S/ Timothy A. King</u>
AEP Gas Power System GP, LLC	<u>/S/ Jeffrey D. Cross</u>
AEP Generating Company	<u>/S/ W.L. Scott</u>
AEP Investments, Inc.	<u>/S/ W.L. Scott</u>
AEP Ohio Commercial & Industrial Retail Co.	<u>/S/ Timothy A. King</u>
AEP Ohio Retail Energy, LLC	<u>/S/ Jeffrey D. Cross</u>
AEP Power Marketing, Inc.	<u>/S/ Thomas Ashford</u>
AEP Pro Serv, Inc.	<u>/S/ W.L. Scott</u>
AEP Resources, Inc.	<u>/S/ W.L. Scott</u>
AEP Resources Services, LLC	<u>/S/ Jeffrey D. Cross</u>

AEP Retail Energy, LLC	<u>/S/ Jeffrey D. Cross</u>
AEP T & D Services, LLC	<u>/S/ Timothy A. King</u>
AEP Texas Commercial & Industrial Retail GP	<u>/S/ Timothy A. King</u>
AEP Texas Retail GP, LLC	<u>/S/ Timothy A. King</u>
Appalachian Power Company	<u>/S/ W.L. Scott</u>
Ash Creek Mining Company	<u>/S/ W.L. Scott</u>
Blackhawk Coal Company	<u>/S/ W.L. Scott</u>
Cedar Coal Company	<u>/S/ W.L. Scott</u>
Central and South West Corporation	<u>/S/ W.L. Scott</u>
Central and South West Services, Inc.	<u>/S/ W.L. Scott</u>
Central Appalachian Coal Company	<u>/S/ W.L. Scott</u>
Central Coal Company	<u>/S/ W.L. Scott</u>
Central Ohio Coal Company	<u>/S/ W.L. Scott</u>
Central Power and Light Company	<u>/S/ W.L. Scott</u>
Colomet, Inc.	<u>/S/ W.L. Scott</u>
Columbus Southern Power Company	<u>/S/ W.L. Scott</u>

Conesville Coal Preparation Company	<u>/S/ W.L. Scott</u>
C3 Communications, Inc.	<u>/S/ W.L. Scott</u>
CSW Development-I, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Development-II, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Development-3, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Eastex GP I, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Eastex GP II, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Eastex LP I, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Eastex LP II, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Energy, Inc.	<u>/S/ W.L. Scott</u>
CSW Energy Services, Inc.	<u>/S/ Thomas Ashford</u>
CSW Frontera GP I, Inc.	<u>/S/ Timothy A. King</u>
CSW Frontera GP II, Inc.	<u>/S/ Timothy A. King</u>
CSW Frontera LP I, Inc.	<u>/S/ Timothy A. King</u>
CSW Frontera LP II, Inc.	<u>/S/ Timothy A. King</u>
CSW Ft. Lupton, Inc.	<u>/S/ Mark A. Pyle</u>

CSW International, Inc.	<u>/S/ W.L. Scott</u>
CSW International (U.K.), Inc.	<u>/S/ Mark A. Pyle</u>
CSW International Two, Inc.	<u>/S/ Mark A. Pyle</u>
CSW International Three, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Leasing, Inc.	<u>/S/ W.L. Scott</u>
CSW Mulberry, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Mulberry II, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Nevada, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Northwest GP, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Northwest LP, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Orange, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Orange II, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Power Marketing, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Services International, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Sweeny GP I, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Sweeny GP II, Inc.	<u>/S/ Mark A. Pyle</u>

CSW Sweeny LP I, Inc.	<u>/S/ Mark A. Pyle</u>
CSW Sweeny LP II, Inc.	<u>/S/ Mark A. Pyle</u>
CSWC Southwest Holding, Inc.	<u>/S/ Mark A. Pyle</u>
CSWC TeleChoice, Inc.	<u>/S/ Mark A. Pyle</u>
CSWC TeleChoice Management, Inc.	<u>/S/ Mark A. Pyle</u>
Datapult, LLC	<u>/S/ Timothy A. King</u>
DECCO II, LLC	<u>/S/ Mark A. Pyle</u>
Diversified Energy Contractors Co., LLC	<u>/S/ Mark A. Pyle</u>
Enershop, Inc.	<u>/S/ Mark A. Pyle</u>
Envirotherm, Inc.	<u>/S/ Mark A. Pyle</u>
Franklin Real Estate Company	<u>/S/ W.L. Scott</u>
Indiana Franklin Realty, Inc.	<u>/S/ W.L. Scott</u>
Indiana Michigan Power Company	<u>/S/ W.L. Scott</u>
Industry and Energy Associates, LLC	<u>/S/ Mark A. Pyle</u>
Kentucky Power Company	<u>/S/ W.L. Scott</u>
Kingsport Power Company	<u>/S/ W.L. Scott</u>

Latin American Energy Holding, Inc.	<u>/S/ Mark A. Pyle</u>
LIG, Inc.	<u>/S/ Mark A. Pyle</u>
LIG Chemical Company	<u>/S/ Mark A. Pyle</u>
LIG Liquids Company, LLC	<u>/S/ Mark A. Pyle</u>
LIG Pipeline Company	<u>/S/ Mark A. Pyle</u>
Louisiana Intrastate Gas Company, LLC	<u>/S/ Mark A. Pyle</u>
Mutual Energy, LLC	<u>/S/ Timothy A. King</u>
Mutual Energy Service Company, LLC	<u>/S/ Timothy A. King</u>
Newgulf Power Venture, Inc.	<u>/S/ Mark A. Pyle</u>
Noah I Power G.P., Inc.	<u>/S/ Mark A. Pyle</u>
Ohio Power Company	<u>/S/ W.L. Scott</u>
Price River Coal Company, Inc.	<u>/S/ W.L. Scott</u>
Public Service Company of Oklahoma	<u>/S/ W.L. Scott</u>
Simco, Inc.	<u>/S/ W.L. Scott</u>
Southern Appalachian Coal Company	<u>/S/ W.L. Scott</u>
Southern Ohio Coal Company	<u>/S/ W.L. Scott</u>



Southwest Arkansas Utilities Corp.	<u>/S/ W.L. Scott</u>
Southwestern Electric Power Company	<u>/S/ W.L. Scott</u>
Southwestern Wholesale Electric Company	<u>/S/ Mark A. Pyle</u>
Tuscaloosa Pipeline Company	<u>/S/ Mark A. Pyle</u>
Ventures Lease Co., LLC	<u>/S/ Timothy A. King</u>
West Texas Utilities Company	<u>/S/ W.L. Scott</u>
West Virginia Power Company	<u>/S/ W.L. Scott</u>
Wheeling Power Company	<u>/S/ W.L. Scott</u>
Windsor Coal Company	<u>/S/ W.L. Scott</u>

**EXECUTION VERSION**

**RAIL CAR MAINTENANCE AGREEMENT**

This Rail Car Maintenance Agreement (this "Agreement") is entered into by and among **AEP Generating Company** ("Provider"), **Ohio Power Company** ("OPCo"), **Indiana Michigan Power Company** ("I&M"), **Kentucky Power Company** ("KPCo"), **Appalachian Power Company** ("APCo"), **Public Service Company of Oklahoma** ("PSO") and **Southwestern Electric Power Company** ("SWEPCO") effective on the 1<sup>st</sup> day of August, 2013 (the "Effective Date"). OPCo, I&M, KPCo, APCo, PSO and SWEPCO may also be referred to herein individually as a "Rail Car Owner" or collectively as the "Rail Car Owners."

**RECITALS**

**WHEREAS**, Provider is the lessee and operator of the Cook Coal Terminal, a coal transfer facility located on the Ohio River near Metropolis, Illinois that is capable of unloading coal in bulk from unit trains and transferring it to, and loading it upon, barges for transportation by water (the "Terminal").

**WHEREAS**, OPCo, I&M, and APCo each own or lease certain open hopper railroad cars ("AEP Cars") that deliver coal to the Terminal for unloading and reloading by Provider onto barges pursuant to that certain Cook Coal Terminal Transfer Agreement entered into by and among Provider, OPCo, I&M, KPCo and APCo contemporaneously with the execution of this Agreement.

**WHEREAS**, PSO and SWEPCO each own or lease AEP Cars that deliver coal to coal-fired generating plants owned and operated by them.

**WHEREAS**, KPCo may own or lease AEP Cars in the future.

**WHEREAS**, Provider owns and operates a rail car maintenance facility at the Terminal that it uses to maintain and repair railroad hopper cars transporting coal to the Terminal (the "RCMF").

**WHEREAS**, it is desirable and economical for the Railcar Owners' AEP Cars to receive routine maintenance and repairs at the RCMF.

**WHEREAS**, OPCo previously was the lessee and operator of the Terminal and provided rail car maintenance services to APCo and I&M pursuant to that certain Railcar Maintenance Agreement dated April 1, 1982 which they now desire to terminate.

**WHEREAS**, OPCo, I&M, KPCo, APCo, PSO and SWEPCO desire to have Provider perform such routine preventive and other maintenance on their AEP Cars on the terms and conditions as herein set forth.

**NOW, THEREFORE**, in consideration of the covenants and agreements of the parties hereto as herein stated, the parties hereby agree as follows:

**1. Rail Car Maintenance Services.** Provider will inspect and perform maintenance and repair services on the Rail Car Owners' AEP Cars as they arrive at the Terminal, including routine inspection and repair work that may be performed on AEPX Cars while in transit through the Terminal and major repairs that are required to be made using the RCMF (herein, the "Rail Car Maintenance Services"). The Rail Car Maintenance Services will be performed by Provider without further specific instructions from the Rail Car Owners and it will be done under the supervision of Provider personnel and such other personnel as Provider may, in its discretion, elect to employ for such purpose. The determination by Provider as to the need for and types of Rail Car Maintenance Services to be performed shall be conclusive. Provider shall perform the Rail Car Maintenance Services (i) in an expeditious and non-discriminatory manner given the capacity of its existing facilities, the size of its workforce and the availability of parts and (ii) in accordance with rules and regulations of the Federal Railroad Administration and the American Association of Railroads. Provider may, but is not obligated to, employ resources or personnel supplied by non-affiliated parties to assist it in the performance of the Rail Car Services.

**2. Rail Car Maintenance Services Fees.**

a. Fees. The fees for Rail Car Maintenance Services shall consist of the sum of (i) all direct materials and supplies used by Provider in performing the Rail Car Maintenance Services using Provider's standard inventory allocation procedures applied on a consistent basis, (ii) Provider's fully loaded cost to perform the Rail Car Maintenance Services including labor, all overhead (including but not limited to depreciation, rentals, administration expenses, taxes other than income taxes, and insurance, (iii) an after tax carrying charge on Providers invested capital in the RCMF equal to the I&M return on equity then in effect as determined by the Indiana Utility

Regulatory Commission (currently 10.2%) from time to time (the "I&M ROE"), including an adder for income taxes at the prevailing statutory rate applied to Provider's investment in the RCMF and (iv) the amounts charged by railroad carriers for maintenance and repairs they perform on the Rail Car Users' AEP Cars.

b. Invoices. Provider shall invoice each Rail Car Owner at the end of each month for Rail Car Maintenance Services provided during such month. Each Rail Car Owner shall pay the invoiced Rail Car Maintenance Services within ten (10) days following receipt of each invoice. Invoices to each Rail Car Owner shall be based on monthly cost accumulations following Provider's standard valuation procedures applied on a consistent basis, and an allocation of all other costs to AEP Cars based on the ratio of tons of coal delivered to the Cook Coal Terminal for Rail Car Owners or delivered to power plants operated by PSO or SWEPCO as applicable.

**3. Accounting and Auditing.** Provider shall keep and maintain such books and records as are necessary to support the charges for Rail Car Maintenance Services in sufficient detail to satisfy applicable regulatory requirements (the "Records"). Provider shall provide Rail Car Owners access to the Records at all reasonable times. Provider shall maintain the Records in accordance with good record management practices.

**4. Termination.**

a. This Agreement shall automatically terminate as to OPCo effective on January 1, 2014 without any further action by OPCo. Notwithstanding the preceding sentence, OPCo may revoke such automatic termination by written notice to Provider at any time in prior to January 1, 2014.

b. A Rail Car Owner may withdraw from this Agreement upon thirty (30) days written notice to Provider.

c. Provider may terminate this Agreement upon sixty (60) days written notice to the Rail Car Owners.

d. The performance of the obligations of each party shall be subject to the continued effectiveness of all governmental regulatory authorizations necessary to permit such party to perform its duties and obligations hereunder. In the event that such authorization is revoked or withdrawn, then this Agreement shall cease to be effective as to such party; provided,

however, that such ineffectiveness shall not affect the obligations of any other party hereto unless the affected party is the Provider in which case this Agreement shall terminate.

e. If this Agreement becomes effective as to APCO pursuant to paragraph number 6, it shall terminate as to APCo on the fifth anniversary of its receipt any regulatory approvals required to participate in this Agreement.

**5. Termination of April 1, 1982 Railcar Maintenance Agreement.** The April 1, 1982 Railcar Maintenance Agreement by and among OPCO, APCo and I&M shall be deemed terminated contemporaneously upon the effectiveness of this Agreement.

**6. APCO Delayed Effectiveness.** This Agreement shall not become effective or binding as to APCo until such time, if ever, that it has obtained all governmental regulatory approvals necessary to participate in this Agreement. This provision shall not affect the obligations of any other party hereto.

**7. I&M Delayed Effectiveness.** Pursuant to IC 8-1-2-49(g), this Agreement shall not become effective as to I&M until it has been filed with the Indiana Utility Regulatory Commission.

**8. Counterparts.** This Agreement may be executed in any number of counterparts, and each such executed counterpart (including electronically transmitted counterparts) shall be, and shall be deemed to be, an original, but all of which shall constitute, and shall be deemed to constitute, in the aggregate, but one and the same instrument.

**9. Entire Agreement.** This Agreement constitutes the entire agreement among the parties hereto with respect to the subject matter hereof, supersedes and is in full substitution for any and all prior agreements and understandings among them relating to such subject matter, and no party hereto shall be liable or bound to any other party hereto in any manner with respect to such subject matter by any warranties, representations, indemnities, covenants, or agreements except as specifically set forth herein and therein.

*Signatures appear on the following page*

Executed as of the Effective Date.

**AEP GENERATING COMPANY**

By:   
Timothy K. Light, Vice President

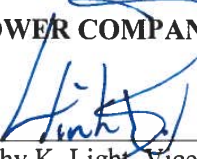
*RGR*

**APPALACHIAN POWER COMPANY**

By:   
Timothy K. Light, Vice President

*RGR*

**OHIO POWER COMPANY**

By:   
Timothy K. Light, Vice President

*RGR*

**KENTUCKY POWER COMPANY**

By:   
Timothy K. Light, Vice President

*RGR*

**INDIANA MICHIGAN POWER  
COMPANY**

By:   
Timothy K. Light, Vice President

*RGR*

**PUBLIC SERVICE COMPANY  
OF OKLAHOMA**

By:   
Timothy K. Light, Vice President

*RGR*

**SOUTHWESTERN ELECTRIC  
POWER COMPANY**

By:   
Timothy K. Light, Vice President

*RGR*

KSJCO-4

AGREEMENT BETWEEN  
KENTUCKY POWER COMPANY  
and  
AEP ENERGY SERVICES, INC.

Dated: July 7, 1983

THIS AGREEMENT, made and entered into as of July 7, 1983, by and between KENTUCKY POWER COMPANY, a corporation organized under the laws of the State of Kentucky, party of the first part (hereinafter sometimes referred to as "Operating Company") and AEP ENERGY SERVICES, INC., a corporation organized under the laws of the State of Ohio, party of the second part (hereinafter sometimes referred to as "Client Company").

W I T N E S S E T H:

WHEREAS, both the Operating Company and the Client Company are associate companies in the American Electric Power System (hereinafter called the "System"), which is comprised of American Electric Power Company, Inc. (hereinafter called "American") and its subsidiary companies; and the Operating Company, which is a wholly-owned subsidiary of American, is an electric utility company within the meaning of Section 2(a)(3) of the Public Utility Holding Company Act of 1935 (hereinafter called the "1935 Act"), and maintains an organization of employees who are experienced in the problems and operations of public utilities and related businesses, together with appropriate facilities and equipment,

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and, in the course of its operations as an electric utility company, has acquired and will acquire certain properties and other resources; and

WHEREAS, Client Company is authorized under the 1935 Act by orders of the Securities and Exchange Commission dated March 28, 1983, and June 20, 1983, to utilize those services, properties and resources of Operating Company, as well as those provided by other members of the American System, to sell management, technical and training services and expertise to non-affiliate companies, agencies and other business concerns, including domestic and foreign governmental agencies, public utilities, industrial concerns, or entities owning, operating or performing services for any of them; and

WHEREAS, economies and increased efficiencies will result from the performance by Operating Company of services for Client Company and the provision of certain property and resources to Client Company as herein provided; and

WHEREAS, subject to the terms and conditions herein described, Operating Company is willing, upon request by Client Company, to render such services and provide such property and resources to Client Company at cost, determined in accordance with applicable rules, regulations and orders of the Commission under the 1935 Act;

NOW, THEREFORE, in consideration of the premises and of the mutual agreements herein, the parties hereto hereby agree as follows:



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ARTICLE I. DEFINITIONS

As used hereinafter, the following terms, in addition to those elsewhere defined in this Agreement, shall have the following meanings unless the context otherwise requires:

A. "Services" shall mean the services described in Articles III, IV and V hereof.

B. "Non-Affiliate" means any corporation, company, agency, government, business, entity or person other than American, a direct or indirect subsidiary of American, or a person employed by American or any of such subsidiaries.

C. "Intellectual Property" means any process, program or technique which is protected by the copyright, patent or trademark laws, or as a trade secret, and which has been specifically and knowingly incorporated into, exhibited in, or reduced to a tangible writing, drawing, manual, computer program, product or similar manifestation or thing.

ARTICLE II. AGREEMENT TO FURNISH SERVICES

A. Upon its receipt of Client Company's work order or other request therefor, Operating Company will, if it has or can have available the personnel and resources needed to fill the work order on request, furnish to Client Company upon the terms and conditions hereinafter set forth such of the Services, at such times, for such periods

-4-

and in such manner as Client Company may from time to time request; provided, however, that the determination of whether Operating Company has the available personnel and resources to perform in accordance with the work order or request will be entirely within the discretion of Operating Company, and Operating Company may at its option elect not to perform any requested Services, except that, once having agreed to perform pursuant to a work order or request, Operating Company cannot withdraw or depart from such performance without the consent of Client Company, which consent will not be unreasonably withheld.

B. The provision of Services by Operating Company pursuant to this Agreement shall in all cases and notwithstanding anything herein contained to the contrary be subject to any limitations contained in authorizations, rules or regulations of those governmental agencies, if any, having jurisdiction over Operating Company, Client Company, or such provision of Services.

ARTICLE III. DESCRIPTION OF SERVICES

The services to be provided by Operating Company to Client Company hereunder shall include the following:

1. Environmental Engineering

Provide services and advice relating to policies and procedures for compliance with environmental regulations. The activities would include:

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- a) Consulting with state commissions regarding the development and enactment of regulations.
- b) Dealing with new and existing plant situations regarding the applications for and operating requirements of air, water and solid waste permits.
- c) Reviewing the sufficiency of permits and environmental laws, and assisting in the preparation of statements in regard thereto.
- d) Reviewing current and projected research projects.

2. Executive Group

This group, consisting of the Chairman of the Board, the President and any Vice President of the Company and their staffs, will advise and assist the officers and employees of Client Company in connection with various phases of its business and operations, including particularly, but not exclusively, those phases which involve coordination of planning or operation between Client Company and other entities.

3. Land Management

Provide services and advice relating to real estate, such as:

-6-

- a) Review of purchase negotiations and contracts.
- b) Review of sales negotiations and contracts.
- c) Studies to determine excess or insufficient holdings of real estate.
- d) Recommend disposition to others of unused property for future use.
- e) Studies of future plant sites and power line corridors.

4. Marketing and Customer Services

Provide services and advice relating to utility end-use customer needs, such as, applications of energy-efficient systems and methods, energy management, heating, ventilation and air conditioning, training, co-generation and small power production analysis and application.

5. Power Plant Generation

- a) Provide services and assistance in the engineering, design, operation and maintenance of power plants and related facilities. Provide services in applications, such as, boilers, turbines, generators, auxiliaries, combustion of fuels, piping, instrumentation, controls, heating, ventilation, air conditioning and fire protection.

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- b) Provide services and advice for the handling and the transportation of coal and other materials to storage facilities via rail, river, conveyor or overland, and for the transporting of fly ash and bottom ash to disposal areas or to the arrangement for the sale and best future use of such materials to third parties.
- c) Provide planning and engineering services related to the uses of coal, preparation of coal for burning and safety activities.

6. Public Affairs

- a) Prepare and disseminate information on all phases of the utility business, including assisting with news media, news releases, advertising and news letters.
- b) Provide Client Company with video tapes as well as other audio-visual materials.

7. Purchasing and Stores

Provide services and advice relating to the procurement of equipment and stores items, including market research, preparation of commitments, requests for quotations, preparation of bid summaries and expediting delivery of materials and services.

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8. Rates, Tariffs and Contracts

Provide services and advice relating to rates and evaluations. Activities would include the following:

a) Interconnection

Arrange contract terms for System Power Pool purchases and sales.

b) Special Contracts

Administer special contracts to provide services.

c) Rates

Coordinate and prepare rate cases. Also participate in the "hearing aspects" of fuel clause matters.

d) Rate Research and Design

Review the cost of service to different rate jurisdictions and to customer classes within rate jurisdictions.

9. System Operations

- a) Provide services and assistance in the engineering, design, operation and maintenance of systems, programs and equipment to improve the economics, efficient application and scheduling of generating, transmission, distribution and associated facilities.

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- b) Provide computer services and applications useful to Client Company, such as:
  - 1) Machine-related data processing services.
  - 2) Computer applications activity - services including feasibility studies for and development of new applications, enhancement of existing applications and other related activity.

10. Technical Education

Provide training to personnel of Client Company or of non-affiliates. Develop and make available training procedures, materials and facilities, and provide instructors.

11. Transmission and Distribution

Provide services and advice related to new or existing transmission lines, which services include:

- a) Planning for the upgrade of transmission and distribution lines.
- b) Planning for and assisting in the engineering of distribution line construction jobs.
- c) Assisting in reliability problems.
- d) Providing services and advice related to system planning.

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- e) Negotiating contracts relating to the purchase of equipment for maintenance and construction projects.
- f) Providing services and advice relating to research and development projects.
- g) Providing services and advice relating to educational programs.
- h) Monitoring the construction of transmission and distribution lines, assemble cost estimates, prepare capital forecasts, provide construction management to ensure that design, engineering and construction activities all coincide with proposed plans, work on contracts for outside construction crews, including the administration of labor contracts on construction projects.
- i) Providing civil engineering services and advice to Client Company on projects related to construction as it concerns siting, surveying, design and engineering, the preparation of drawings and cost estimates.
- j) Providing services and advice relating to approval of bids by outside contractor



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for maintenance along rights-of-way, such maintenance to include trimming trees and brush, groundline treatment of poles, painting towers and stations, and aerial patrol of rights-of-way. In addition, monitor the work of the contractors for purposes of cost control and adherence to contract terms. Also review safety standards.

ARTICLE IV. PROVISION OF PERSONNEL

When specifically requested by Client Company, Operating Company may loan its employees to Client Company. In that event, such loaned employees will be under the sole supervision and control of Client Company for such period or periods of time as are necessary to complete the work to be performed by such employees. Such employees may be withdrawn by Operating Company from tasks assigned by Client Company only with the consent of Client Company, which consent will not be unreasonably withheld in the event of a demonstrable emergency requiring the use of such employees in another capacity for Operating Company. Client Company will be responsible for the actions and activities of such employees while engaged in the performance of the work to the same degree as though such persons were employees of Client Company; provided that, such persons shall remain the employees of the Operating Company, and nothing herein shall

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be construed as creating the employer-employee relationship between Client Company and such persons. Accordingly, as part of Services, Operating Company, during periods when such employees are loaned to Client Company, will continue to provide to such employees those same payroll, pension, savings, tax withholding, unemployment, bookkeeping and other personnel support services then being utilized by Operating Company in connection with compensating and benefiting such employees.

ARTICLE V. EXCHANGE OF INTELLECTUAL PROPERTY

A. Client Company shall own all Intellectual Property developed during the course of its business utilizing personnel and other resources of Operating Company, except as Client Company's proprietary interest therein may be limited by contractual commitments of Client Company to Non-Affiliates, applicable laws and regulations, and the legal rights and entitlements of others. Nothing herein shall be construed as granting or conferring any proprietary interest in such Intellectual Property to or upon Operating Company. Nevertheless, should Client Company in the course of its business develop Intellectual Property, it will make such Intellectual Property available for utilization by any associate company of Client Company in the American Electric Power System without charge (except the actual expenses incurred by Client Company in connection with making such Intellectual Property so available); provided, however, that such availability shall also be dependent upon and subject

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to any contractual commitments of Client Company to Non-Affiliates, applicable laws and regulations, and the legal rights and entitlements of others.

B. As part of the Services, Operating Company will make available to Client Company for use or for re-sale or licensing to Non-Affiliates all Intellectual Property heretofore or hereafter developed or obtained by Operating Company without charge (except for the actual expenses incurred in making the same available, and except as otherwise provided in Article VIII below), provided, however, that such availability shall be dependent and subject to any contractual commitments of Operating Company to Non-Affiliates, applicable laws and regulations, and the legal rights and entitlement of others.

ARTICLE VI. COMPENSATION OF OPERATING COMPANY

As compensation for services actually requested by Client Company and rendered to it by Operating Company, Client Company hereby agrees to pay to Operating Company the cost of such services, except as described in Article V(B), computed in accordance with applicable rules and regulations (including Rules 90 and 91 under the 1935 Act) and accounting standards. As soon as practicable after the close of each month, Operating Company will issue to Client Company an invoice and detail of charges, and all amounts so billed shall be paid by Client Company within thirty days after receipt thereof. The cost of Services to be paid by Client

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Company shall include direct charges and Client Company's pro rata share of certain of Operating Company's costs, determined as set forth below:

A. Direct Charges. To the extent that the costs incurred by Operating Company in connection with Services rendered by it to Client Company can be identified and related to a particular transaction, direct charges will be made by Operating Company to Client Company.

B. Prorated Charges. Such costs incurred by Operating Company in connection with rendering Services to Client Company as cannot be identified and related to a particular transaction will be charged to Client Company in a fair and equitable manner.

ARTICLE VII. WORK ORDERS

The Services will be performed in accordance with work orders or requests issued or made by or on behalf of Client Company and accepted by Operating Company, and all services will be assigned an applicable work order number to enable specific work to be properly allocated by project or other appropriate basis. Work orders shall be as specific as practicable in defining the Services requested to be performed. Client Company shall have the right from time to time to amend, alter or rescind any work order, provided that (i) any such amendment or alteration which results in a material change in the scope of the work to be performed or equipment to be provided is agreed to by Operating Company;

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(ii) the costs for the Services covered by the work order will include any expense incurred by Operating Company as a direct result of such amendment, alteration or rescission of the work order, and (iii) no amendment, alteration or rescission of a work order will release Client Company from liability for all costs already incurred or contracted for by Operating Company pursuant to the work order, regardless of whether the work associated with such costs has been completed.

ARTICLE VIII. DISPOSITION OF INTELLECTUAL PROPERTY

In the event Client Company sells or licenses to Non-Affiliates Intellectual Property heretofore or hereafter developed by Operating Company for its own use, and as a result of such sale or license such Intellectual Property is no longer available for use by Operating Company, Client Company shall receive, as and when received from such Non-Affiliates, a commission of thirty percent (30%) of all net profits (after deducting marketing and any other applicable expenses incurred by Client Company) earned from such sale or licensing, and Operating Company shall receive seventy percent (70%) of such net profits.

ARTICLE IX. LIMITATION OF LIABILITY AND INDEMNIFICATION

A. In performing the Services hereunder (except to the extent such services are being performed by employees loaned to and under the supervision of Client Company), Operating Company will exercise due care to assure that the services are performed in a workmanlike manner, meet the

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standards and specifications set forth in the applicable work order or request with respect to such services, and comply with applicable standards of law and regulation. However, failure to meet these obligations shall in no event subject Operating Company to any claims or liabilities other than to reperform the work at cost such that it fully complies with the work order, request or standard, as the case may be. Operating Company makes no other warranty with respect to its performance of the Services, and Client Company agrees to accept such Services without further warranty of any nature. The Client Company shall and does hereby indemnify and agree to save harmless and defend Operating Company from the payment of any sum or sums of money on account of, or resulting from, claims or suits growing out of (i) injuries to or the death of any person, (ii) damage to or loss of any property, and/or (iii) other damages in any way attributable to or arising out of the performance and prosecution of any project or work performed by or on behalf of Client Company for Non-Affiliates, whether or not the same results or allegedly results from the claimed or actual negligence or breach of warranty of, or wilful conduct by, Client Company or of its employees, agents or subcontractors or any combination thereof. Further, Client Company shall and does hereby indemnify and agree to save harmless and defend Operating Company (a) from any and all liens, garnishments, attachments, claims,

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suits, costs, attorneys' fees, cost of investigation and of defense resulting from, incurred in connection with, or relating to any such claims, (b) from the payment of any such sum or sums of money, and (c) from the payment of any penalties, fines, damages, suits or claims (and any liens or attachments asserted in connection therewith) arising out of (i) any alleged or actual violation of law, court order, or governmental agency rule or regulation committed by or existing with respect to Client Company or its employees, agents or subcontractors (except Operating Company when not performing Services hereunder), (ii) any alleged or actual breaches of contract by Client Company, (iii) any claims made by or on account of any employee, agent or subcontractor (except Operating Company when not performing Services hereunder or an employee or agent of Service Company where such claim does not arise specifically in connection with the performance of Services hereunder) of Client Company, or for (iv) services or labor performed, materials, provisions or supplies furnished or board of men which have been purchased or allegedly contracted for by or on behalf of the Client Company, its employees, agents or sub-contractors (except Operating Company when not performing services hereunder).

B. The Operating Company shall within five business days after it receives notice of any claims, action, damages or liability against which it will expect to

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be indemnified pursuant to Article IX(A), notify Client Company of such claims, actions, damages or liabilities. Thereafter, Client Company may at its own expense, upon notice to Operating Company, defend or participate in the defense of such action or claim or any negotiation for settlement of such action or claim, provided that unless Client Company proceeds promptly and in good faith to pay or defend such action or claim, then Operating Company shall have the right (but not the obligation), in good faith, upon ten days notice to Client Company, to pay, settle, compromise or proceed to defend any such action or claim without the further participation by Client Company. Client Company will immediately pay (or reimburse Operating Company, as the case may be) any payments, settlements, compromises, judgments, costs or expenses made or incurred by Operating Company in or resulting from the pursuit by Operating Company of such right. If any judgment is rendered against Operating Company in any action defended by Client Company or from which Operating Company is otherwise entitled to indemnification under Article IX(A), or any lien attached to the assets of Operating Company in connection therewith, Client Company immediately upon such entry or attachment shall pay the judgment in full or discharge any such lien unless, at its expense and direction, appeal shall be taken under which the execution of the judgment or satisfaction of the lien is stayed. If and when a final and unappealable



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judgment is rendered against Operating Company in any such action, Client Company shall forthwith pay such judgment or discharge such lien prior to the time that Operating Company would be legally held to do so.

C. Client Company shall maintain at all times adequate levels of insurance to discharge financially its obligations under this Article IX.

ARTICLE X. MISCELLANEOUS

This Agreement shall be binding upon the successors and assigns of the parties hereto, provided that Operating Company shall not be entitled to assign or subcontract out any of its obligations under this Agreement or under any purchase order or work order issued hereunder without the prior written approval of Client Company. This Agreement may not be modified or amended in any respect except in writing executed by the parties hereto. This Agreement shall be construed and enforced under and in accordance with the laws of the State of Ohio. This Agreement may be executed in counterparts, each one of which when fully executed shall be deemed to have the same dignity, force and effect as if the original. No provision of this Agreement shall be deemed waived nor breach of this Agreement consented to unless waiver or consent is set forth in writing and executed by the party hereto making such waiver or consent.

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IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed in their respective corporate names by their respective Presidents or one of their respective Vice Presidents and their respective seals to be hereunto affixed and attested by their respective Secretaries or one of their respective Assistant Secretaries as of the day and year first above written.

KENTUCKY POWER COMPANY  
(Operating Company)

ATTEST:

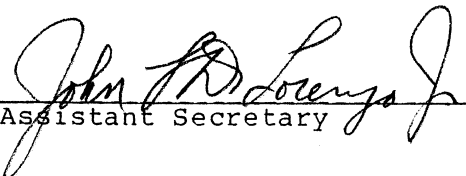
  
Assistant Secretary

By:

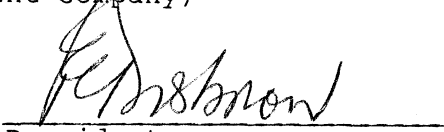
  
President

AEP ENERGY SERVICES, INC.  
(Client Company)

ATTEST:

  
Assistant Secretary

By:

  
President

PURCHASE CONTRACT

THIS AGREEMENT, made this 31st day of March, 1975, by and between KENTUCKY POWER COMPANY, a corporation of the State of Kentucky (hereinafter called the "Purchaser"), and INDIANA FRANKLIN REALTY, INC., a corporation of the State of Indiana (hereinafter called the "Seller"),

W I T N E S S E T H,

T H A T :

WHEREAS, the Seller may from time to time hereafter, at the request of the Purchaser, acquire and hold title to or rights in real and/or personal property, tangible or intangible, at a cost to it, at a cost to the Purchaser, or at a cost to both for the purpose of thereafter conveying, transferring or assigning such title or rights to or upon the order of the Purchaser.

NOW, THEREFORE, in consideration of the mutual covenants herein set forth, the Seller agrees to sell, transfer and/or convey to the Purchaser, and the Purchaser agrees to buy from the Seller, real and/or personal property, tangible or intangible, as follows:

The Seller hereby undertakes and covenants and agrees with the Purchaser that at any time and from time to time hereafter, as and when requested by the Purchaser so to do, the Seller will convey, transfer or assign to or upon the order of the Purchaser, all the right, title and interest of the Seller in and to any and all real or personal property, tangible or intangible, the title to or rights in which hereafter shall be acquired by the Seller at the request of the Purchaser,

and remit to the Purchaser all such part of any consideration received by the Seller for such transfer, assignment or conveyance as shall be in excess of the cost to the Seller of the acquisition, holding, transferring, assigning and conveying of such title or rights.

The Purchaser hereby undertakes, covenants and agrees with the Seller that, upon the transfer, assignment or conveyance by the Seller to or upon the order of the Purchaser of title to or rights in real or personal property, tangible or intangible, in accordance with the agreement of the Seller, as set forth in the next preceding paragraph hereof, the Purchaser will fully reimburse the Seller for all or any part not theretofore retained by the Seller or paid by the Purchaser to the Seller of the cost to Seller of the acquisition, holding, transferring, assigning and conveying of such title to or rights in such property.

This agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this instrument in duplicate as of the day and year hereinabove set forth.

KENTUCKY POWER COMPANY

By

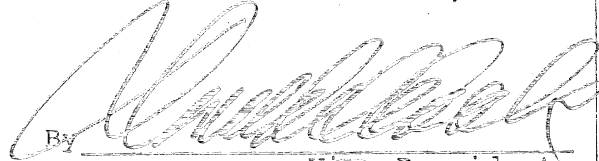


Vice President

ATTEST:

  
Secretary

INDIANA FRANKLIN REALTY, INC.

By    
President OK  
2/10/22

ATTEST:

  
ASSISTANT Secretary

PURCHASE CONTRACT

THIS AGREEMENT, made this 7<sup>th</sup> day of ~~May~~ <sup>JUNE</sup>, 1963,  
by and between KENTUCKY POWER COMPANY, a corporation of the  
State of Kentucky (hereinafter called the "Purchaser"),  
and THE FRANKLIN REAL ESTATE COMPANY, a corporation of  
the Commonwealth of Pennsylvania (hereinafter called the  
"Seller");

W I T N E S S E T H ,

T H A T :

WHEREAS, at the request of the Purchaser, the  
Seller has heretofore at various times acquired and now  
holds title to and/or rights in various and sundry parcels  
or tracts of real estate, at a cost to it, at a cost to  
the Purchaser, or at a cost to both with the understanding  
that the Seller, upon being reimbursed by the Purchaser for  
the full cost to the Seller in so acquiring and holding  
and in conveying such title and rights, should convey all  
such title and rights to or upon the order of the Purchaser;  
and

WHEREAS, the Seller may from time to time here-  
after, at the request of the Purchaser, acquire and hold title  
to or rights in real and/or personal property, tangible or  
intangible, at a cost to it, at a cost to the Purchaser, or  
at a cost to both for the purpose of thereafter conveying,  
transferring or assigning such title or rights to or upon  
the order of the Purchaser.

NOW, THEREFORE, in consideration of the mutual  
covenants herein set forth, the Seller agrees to sell,  
transfer and/or convey to the Purchaser, and the Purchaser  
agrees to buy from the Seller, real and/or personal property,  
tangible or intangible, as follows:

The Seller hereby undertakes, covenants and agrees with the Purchaser that at any time and from time to time hereafter, as and when requested by the Purchaser so to do, the Seller will convey, transfer or assign to or upon the order of the Purchaser, all the right, title and interest of the Seller in and to any and all real or personal property, tangible or intangible, the title to or rights in which heretofore have been or hereafter shall be acquired by the Seller at the request of the Purchaser, and remit to the Purchaser all such part of any consideration received by the Seller for such transfer, assignment or conveyance as shall be in excess of the cost to the Seller of the acquisition, holding, transferring, assigning and conveying of such title or rights.

The Purchaser hereby undertakes, covenants and agrees with the Seller that, upon the transfer, assignment or conveyance by the Seller to or upon the order of the Purchaser of title to or rights in real or personal property, tangible or intangible, in accordance with the agreement of the Seller, as set forth in the next preceding paragraph hereof, the Purchaser will fully reimburse the Seller for all or any part not theretofore retained by the Seller or paid by the Purchaser to the Seller of the cost to Seller of the acquisition, holding, transferring, assigning and conveying of such title to or rights in such property.

This agreement cancels and supersedes the agreement between Kentucky and West Virginia Power Company (now Kentucky Power Company) and The Franklin Real Estate Company dated August 11, 1941.

This agreement shall be binding upon and inure to the benefit of the respective successors and assigns of the parties hereto.

IN WITNESS WHEREOF, the parties hereto have executed this instrument in duplicate on this, the day and year hereinsabove set forth.

KENTUCKY POWER COMPANY

By (S) G. V. Patterson  
Vice President

ATTEST:

(S) M. P. McGlone  
Assistant Secretary

SEAL

THE FRANKLIN REAL ESTATE COMPANY

By (S) W. J. Ross  
Vice President

ATTEST:

(S) Edward Smith  
Assistant Secretary

SEAL



Execution Version


December 15, 2013

Appalachian Power Company  
1 Riverside Plaza  
Columbus, Ohio 43215  
Attn: Thomas G. Berkemeyer, Assistant Secretary

**Re: ASSIGNMENT OF GYPSUM AND PURGE STREAM WASTE DISPOSAL  
AGREEMENT DATED NOVEMBER 16, 2007 TO KENTUCKY POWER  
COMPANY**


Effective on December 31, 2013, Ohio Power Company will transfer its interest in the Mitchell Plant located in Marshall County, West Virginia to Kentucky Power Company, a Kentucky corporation, as Operator, and to an affiliate of Kentucky Power Company. Therefore, Ohio Power Company hereby requests the consent of Appalachian Power Company to Ohio Power Company's assignment of its interest, including all rights and obligations thereunder, in the above referenced Agreement to Kentucky Power Company effective on January 1, 2014.

**OHIO POWER COMPANY**

By:   
Jeffrey D. Cross  
Assistant Secretary

Consent granted this 18<sup>th</sup> day of December, 2013.

**APPALACHIAN POWER COMPANY**

By:   
Thomas G. Berkemeyer  
Assistant Secretary

Acceptance of Assignment of Ohio Power Company's Interest Effective January 1, 2014.

**KENTUCKY POWER COMPANY**

By:   
Thomas G. Berkemeyer  
Assistant Secretary

*orig.*

## **GYPSUM AND PURGE STREAM WASTE DISPOSAL AGREEMENT**

THIS AGREEMENT, dated as of November 16, 2007, between Appalachian Power Company, a Virginia corporation ("APCo"), and Ohio Power Company, an Ohio corporation ("OPCo").

WITNESSETH THAT:

WHEREAS, APCo and OPCo are each public utility subsidiaries of American Electric Power Company, Inc., a New York corporation ("AEP") and are affiliates of each other; and

WHEREAS, APCo owns and operates the Mountaineer Plant located in Mason County, West Virginia and OPCo owns and operates the Mitchell Plant located in Marshall County, West Virginia; and

WHEREAS, both the Mountaineer Plant and the Mitchell Plant have been retrofitted with Flue Gas Desulfurization ("FGD") Equipment which will produce a quantity of gypsum and purge stream waste ("Waste Product") which must be disposed of in a landfill; and

WHEREAS, the Mitchell Plant does not have available landfill capacity to accommodate the waste product produced by the Mitchell Plant ("Mitchell Waste Product"); and

WHEREAS, APCo operates a landfill ("Landfill") adjacent to the Mountaineer Plant which has sufficient capacity not only to accommodate waste stream from its own facilities but also from facilities other than the Mountaineer Plant; and

WHEREAS, OPCo desires to dispose of the Mitchell Waste Product in the Landfill; and

WHEREAS, OPCo has requested to purchase such services and such capacity and APCo is prepared to provide unloading, transfer, transportation, and landfill disposal services to OPCo;

NOW THEREFORE, in consideration of the premises and for the purposes hereinabove recited, and in consideration of the mutual covenants hereinafter contained, the parties hereby agree as follows:

### **ARTICLE 1 Services Provided**

- 1.1 APCo shall (a) utilize its equipment to unload Mitchell Waste Product from barges delivered to the Mountaineer Plant by OPCo; (b) transfer such material to a limited conveyor system owned by OPCo and located at the Mountaineer Plant, which will be used to transport the material to APCo's conveyor system also located at the Mountaineer Plant; (c) transport Mitchell Waste Product over APCo's conveyor system to APCo's radial stacker at APCo's Landfill adjacent to the Mountaineer Plant; and (d) dispose of the Mitchell Waste Product in the Landfill.

- 1.2 APCo will operate and maintain the limited conveyor system owned by OPCo at the Mountaineer Plant and used to transport the Mitchell Plant's Waste Product.

## **ARTICLE 2**

### **Compensation for Services Provided**

- 2.1 Waste Product Disposal O&M Expense Reimbursement

Total actual Operation and Maintenance (O&M) expenses incurred by APCo monthly for Waste Product disposal will be accumulated in separate billing work orders and benefiting locations. All of the costs to operate and maintain the dedicated unloading and transporting equipment owned by APCo, including depreciation and property taxes, will be charged to these work orders and benefiting locations. An automated billing process will allocate the monthly O&M costs between OPCo and APCo based on the ratio of estimated tons of Waste Product each company will be disposing of divided by the combined total tons of Waste Product. Since the unloading equipment is used to unload limestone in addition to Mitchell Waste Product, this will be taken into account when developing the allocation ratios. Where appropriate, certain O&M expenses such as the cost of third party transportation will be directly charged to OPCO.

- 2.2 Equipment Fee

OPCo shall pay APCo an Equipment Fee to compensate APCo for its fixed costs of its investment in the unloader, conveyor and radial stacker facilities determined by utilizing the percentage rate described in Section 2.5 times the allocated net book value.

- 2.3 Landfill Fee

OPCo shall pay APCo a Landfill Fee equal to the tons of Mitchell Waste product times a average Landfill cost, which shall be determined by dividing APCo's annual expenses of operation and maintenance, depreciation and overhead expense, taxes, plus a provision for capital fixed charges on APCo's investment in the Landfill, by the capacity in tons capable of being disposed of in the Landfill.

- 2.4 Overhead Fee

OPCo shall pay APCo an Overhead Fee determined by taking the labor dollars charged to the work orders identified for Waste Product disposal O&M times a fixed overhead rate. The overhead rate is determined by an internal overhead study calculated annually and includes fringe benefits and general and administrative costs.

- 2.5 The provision for capital fixed charges on APCo's investments will be at an initial rate of 10.459% determined as set forth in Appendix A attached hereto, and shall be subject to adjustment on the first day of January in each succeeding year based on changes in the

average of the rate of return on common equity allowed by the Public Service Commission of West Virginia and the Virginia State Corporation Commission in the last base rate proceeding involving APCo.

- 2.6 The depreciation rates to be applied in determining the deprecation associated with the unloading and transporting equipment and the Landfill Fee, shall be a composite rate based upon the last depreciation rate approved by the Public Service Commission of West Virginia and the Virginia State Corporation Commission for APCo's Mountaineer Plant.

### **ARTICLE 3 True-up Provisions**

- 3.1 The ratios used to allocate the monthly O&M expenses, the Equipment Fee and the Landfill Fee will be initially based on estimated volumes of Waste Product to be transported and disposed of at the Landfill. A year-end billing adjustment will be calculated to true-up for the difference between estimated and actual volumes of transported and disposed of Waste Product.

### **ARTICLE 4 Liability**

- 4.1 Any liability for claims or damages resulting from the deposit of Waste Product in the Landfill will be apportioned between the parties based on the quantities of Waste Product delivered to the Landfill.

### **ARTICLE 5 Termination**

- 5.1 This Agreement shall remain in force until such time as the parties mutually agree in writing to cancel it.

### **ARTICLE 6 Amendments**

- 6.1 This Agreement may be amended from time to time to include additional companies affiliated with APCo. All amendments must be in writing and signed by all of the parties to the Agreement.

### **ARTICLE 7 Regulatory Authority**

7.1 This Agreement is subject to the regulatory authority of any State or Federal agency having jurisdiction.

**ARTICLE 8**  
**Binding Effect**

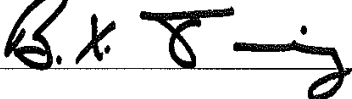
8.1 This Agreement shall inure to the benefit of and be binding upon the parties hereto and their respective successors and assigns, but this Agreement may not be assigned by APCo or OPCo without the prior written consent of the other contracting party.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by the undersigned thereunto duly authorized as of the date first above written.

APPALACHIAN POWER COMPANY

By 

OHIO POWER COMPANY

By 

Execution Version


December 15, 2013

Appalachian Power Company  
1 Riverside Plaza  
Columbus, Ohio 43215  
Attn: Thomas G. Berkemeyer, Assistant Secretary

**Re: ASSIGNMENT OF GYPSUM AND PURGE STREAM WASTE DISPOSAL  
AGREEMENT DATED NOVEMBER 16, 2007 TO KENTUCKY POWER  
COMPANY**

Effective on December 31, 2013, Ohio Power Company will transfer its interest in the Mitchell Plant located in Marshall County, West Virginia to Kentucky Power Company, a Kentucky corporation, as Operator, and to an affiliate of Kentucky Power Company. Therefore, Ohio Power Company hereby requests the consent of Appalachian Power Company to Ohio Power Company's assignment of its interest, including all rights and obligations thereunder, in the above referenced Agreement to Kentucky Power Company effective on January 1, 2014.

**OHIO POWER COMPANY**

By:   
Jeffrey D. Cross  
Assistant Secretary

Consent granted this 18<sup>th</sup> day of December, 2013.

**APPALACHIAN POWER COMPANY**

By:   
Thomas G. Berkemeyer  
Assistant Secretary

Acceptance of Assignment of Ohio Power Company's Interest Effective January 1, 2014.

**KENTUCKY POWER COMPANY**

By:   
Thomas G. Berkemeyer  
Assistant Secretary

AEPES-7

AGREEMENT BETWEEN  
KENTUCKY POWER COMPANY  
and  
AEP ENERGY SOLUTIONS, INC.

THIS AGREEMENT, made and entered into as of September 27, 1996 by and between KENTUCKY POWER COMPANY, a corporation organized under the laws of the Commonwealth of Kentucky (hereinafter sometimes referred to as "Operating Company") and AEP ENERGY SOLUTIONS, INC., a corporation organized under the laws of the State of Ohio (hereinafter sometimes referred to as "Client Company").

W I T N E S S E T H :

WHEREAS, both the Operating Company and the Client Company are associate companies in the American Electric Power System (hereinafter called the "System"), which is comprised of American Electric Power Company, Inc. (hereinafter called "American") and its subsidiary companies; and the Operating Company, which is a wholly-owned subsidiary of American, is an electric utility company within the meaning of Section 2(a)(3) of the Public Utility Holding Company Act of 1935 (hereinafter called the "1935 Act"), and maintains an organization of employees who are experienced in the problems and operations of public utilities and related businesses, together with appropriate facilities and equipment, and, in the course of its operations as an electric utility company, has acquired and will acquire certain properties and other resources; and

WHEREAS, Client Company is authorized under the 1935 Act by order of the Securities and Exchange Commission dated September 13, 1996, to utilize those services, properties and resources of Operating Company, as well as those provided by other members of the American System, to broker and market energy commodities; and

WHEREAS, economies and increased efficiencies will result from the performance by Operating Company of services for Client Company and the provision of certain property and resources to Client Company as herein provided; and

WHEREAS, subject to the terms and conditions herein described, Operating Company is willing, upon request by Client Company, to render such services and provide such property and resources to Client Company at cost, determined in accordance with applicable rules, regulations and orders of the Commission under the 1935 Act;

NOW, THEREFORE, in consideration of the premises and of the mutual agreements herein, the parties hereto hereby agree as follows:

#### ARTICLE I. AGREEMENT TO FURNISH SERVICES

A. Upon its receipt of Client Company's work order or other request therefor, Operating Company will, if it has or can have available the personnel and resources needed to fill the work order or request, furnish to Client Company upon the terms and conditions hereinafter set forth services, for such periods and in such manner as Client Company may from time to time request (the "Services"); provided, however, that the determination of whether Operating



Company has the available personnel and resources to perform in accordance with the work order or request will be entirely within the discretion of Operating Company, and Operating Company may at its option elect not to perform any requested Services, except that, once having agreed to perform pursuant to a work order or request, Operating Company cannot withdraw or depart from such performance without the consent of Client Company.

B. The provision of Services by Operating Company pursuant to this Agreement shall in all cases and notwithstanding anything herein contained to the contrary be subject to any limitations contained in authorizations, rules or regulations of those governmental agencies, if any, having jurisdiction over Operating Company, Client Company, or such provision of Services.

#### ARTICLE II. PROVISION OF PERSONNEL

When specifically requested by Client Company, Operating Company may loan its employees to Client Company. In that event, such loaned employees will be under the sole supervision and control of Client Company for such period or periods of time as are necessary to complete the work to be performed by such employees. Such employees may be withdrawn by Operating Company from tasks assigned by Client Company only with the consent of Client Company, which consent will not be unreasonably withheld in the event of a demonstrable emergency requiring the use of such employees in another capacity for Operating Company. Client Company will be responsible for the actions and activities of such employees while

engaged in the performance of the work to the same degree as though such persons were employees of Client Company; provided that such persons shall remain the employees of the Operating Company and nothing herein shall be construed as creating the employer-employee relationship between Client Company and such persons. Accordingly, as part of Services, Operating Company, during periods when such employees are loaned to Client Company, will continue to provide to such employees those same payroll, pension, savings, tax withholding, unemployment, bookkeeping and other personnel support services then being utilized by Operating Company in connection with compensating and benefiting such employees.

ARTICLE III. COMPENSATION OF OPERATING COMPANY

As compensation for services actually requested by Client Company and rendered to it by Operating Company, Client Company hereby agrees to pay to Operating Company the cost of such services computed in accordance with applicable rules and regulations (including Rules 90 and 91 under the 1935 Act) and accounting standards. As soon as practicable after the close of each month, Operating Company will issue to Client Company an invoice and detail of charges, and all amounts so billed shall be paid by Client Company within thirty days after receipt thereof. The cost of Services to be paid by Client Company shall include direct charges and Client Company's pro rata share of certain of Operating Company's costs, determined as set forth below:

A. Direct Charges. To the extent that the costs incurred by Operating Company in connection with Services rendered by it to Client Company can be identified and related to a particular transaction, direct charges will be made by Operating Company to Client Company.

B. Prorated Charges. Such costs incurred by Operating Company in connection with rendering Services to Client Company as cannot be identified and related to a particular transaction will be charged to Client Company in a fair and equitable manner.

#### ARTICLE IV. WORK ORDERS

The Services will be performed in accordance with work orders or requests issued or made by or on behalf of Client Company and accepted by Operating Company, and all services will be assigned an applicable work order number to enable specific work to be properly allocated by project or other appropriate basis. Work orders shall be as specific as practicable in defining the Services requested to be performed. Client Company shall have the right from time to time to amend, alter or rescind any work order, provided that (i) any such amendment or alteration which results in a material change in the scope of the work to be performed or equipment to be provided is agreed to by Operating Company; (ii) the costs for the Services covered by the work order will include any expense incurred by Operating Company as a direct result of such amendment, alteration or rescission of the work order; and (iii) no amendment, alteration or rescission of a work order will release Client

Company from liability for all costs already incurred or contracted for by Operating Company pursuant to the work order, regardless of whether the work associated with such costs has been completed.

ARTICLE V. LIMITATION OF LIABILITY AND INDEMNIFICATION

A. In performing the Services hereunder (except to the extent such services are being performed by employees loaned to and under the supervision of Client Company), Operating Company will exercise due care to assure that the Services are performed in a workmanlike manner, meet the standards and specifications set forth in the applicable work order or request with respect to such services, and comply with applicable standards of law and regulation. However, failure to meet these obligations shall in no event subject Operating Company to any claims or liabilities other than to reperform the Services at cost so that they fully comply with the work order, request or standard, as the case may be. Operating Company makes no other warranty with respect to its performance of the Services, and Client Company agrees to accept such Services without further warranty of any nature. The Client Company shall indemnify and agree to save harmless and defend Operating Company from the payment of any sum or sums of money on account of, or resulting from, claims or suits growing out of (i) injuries to or the death of any person, (ii) damage to or loss of any property, and/or (iii) other damages in any way attributable to or arising out of the performance of any Service, whether or not the same results or allegedly results from the claimed or actual

negligence or breach of warranty of, or wilful conduct by, Client Company or of its employees, agents or subcontractors or any combination thereof. Further, Client Company shall indemnify and agree to save harmless and defend Operating Company (a) from any and all liens, garnishments, attachments, claims, suits, costs, attorneys' fees, cost of investigation and of defense resulting from, incurred in connection with, or relating to any such claims; (b) from the payment of any such sum or sums of money; and (c) from the payment of any penalties, fines, damages, suits or claims (and any liens or attachments asserted in connection therewith) arising out of (i) any alleged or actual violation of law, court order, or governmental agency rule or regulation committed by or existing with respect to Client Company or its employees, agents or subcontractors (except Operating Company when not performing Services hereunder); (ii) any alleged or actual breaches of contract by Client Company; (iii) any claims made by or on account of any employee, agent or subcontractor (except Operating Company when not performing Services hereunder or an employee or agent of Operating Company where such claim does not arise specifically in connection with the performance of Services hereunder) of Client Company; or for (iv) services or labor performed, materials, provisions or supplies furnished or board of men which have been purchased or allegedly contracted for by or on behalf of the Client Company, its employees, agents or sub-contractors (except Operating Company when not performing services hereunder).

B. The Operating Company shall within five business days after it receives notice of any claims, action, damages or liability against which it will expect to be indemnified pursuant to Article V(A), notify Client Company of such claims, actions, damages or liabilities. Thereafter, Client Company may at its own expense, upon notice to Operating Company, defend or participate in the defense of such action or claim or any negotiation for settlement of such action or claim, provided that unless Client Company proceeds promptly and in good faith to pay or defend such action or claim, then Operating Company shall have the right (but not the obligation), in good faith, upon ten days' notice to Client Company, to pay, settle, compromise or proceed to defend any such action or claim without the further participation by Client Company. Client Company will immediately pay (or reimburse Operating Company, as the case may be) any payments, settlements, compromises, judgments, costs or expenses made or incurred by Operating Company in or resulting from the pursuit by Operating Company of such right. If any judgment is rendered against Operating Company in any action defended by Client Company or from which Operating Company is otherwise entitled to indemnification under Article V(A), or any lien attached to the assets of Operating Company in connection therewith, Client Company immediately upon such entry or attachment shall pay the judgment in full or discharge any such lien unless, at its expense and direction, appeal shall be taken under which the execution of the judgment or satisfaction of the lien is stayed. If and when a final and

unappealable judgment is rendered against Operating Company in any such action, Client Company shall forthwith pay such judgment or discharge such lien prior to the time that Operating Company would be legally held to do so.

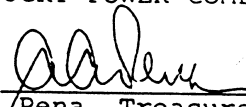
C. Client Company shall maintain at all times adequate levels of insurance to discharge financially its obligations under this Article V.

#### ARTICLE VI. MISCELLANEOUS

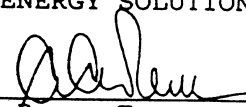
This Agreement shall be binding upon the successors and assigns of the parties hereto, provided that Operating Company shall not be entitled to assign or subcontract out any of its obligations under this Agreement or under any purchase order or work order issued hereunder without the prior written approval of Client Company. This Agreement may not be modified or amended in any respect except in writing executed by the parties hereto. This Agreement shall be construed and enforced under and in accordance with the laws of the State of Ohio. This Agreement may be executed in counterparts, each one of which when fully executed shall be deemed to have the same dignity, force and effect as if the original. No provision of this Agreement shall be deemed waived nor breach of this Agreement consented to unless waiver or consent is set forth in writing and executed by the party hereto making such waiver or consent.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed as of the day and year first above written.

KENTUCKY POWER COMPANY

By:   
A.A. Pena, Treasurer

AEP ENERGY SOLUTIONS, INC.

By:   
A.A. Pena, Treasurer

[97FN0003.KPC]



**AEP SYSTEM AMENDED AND RESTATED  
UTILITY MONEY POOL AGREEMENT**

This AMENDED AND RESTATED UTILITY MONEY POOL AGREEMENT ("Agreement") is made and entered into this 9<sup>th</sup> day of December, 2004 by and among American Electric Power Company, Inc., a New York corporation ("AEP"), AEP Utilities Inc., a Delaware corporation ("AEP Utilities"), both registered holding companies under the Public Utility Holding Company Act of 1935, as amended (the "Act"), American Electric Power Service Corporation ("AEPSC"), a New York corporation and a nonutility subsidiary of AEP (in its role as administrative agent and as a participant in the Utility Money Pool), AEP Utility Funding LLC, a Delaware limited liability company ("AEPUF"), and certain of the direct or indirect subsidiaries of AEP, each of which are signatories hereto and participants in the AEP Utility Money Pool ("Participants"), or which subsequently become signatories hereto and agree to abide by the terms herein. (All of the above are referred to as a Party or Parties to this Agreement).

WHEREAS, the following entities are each a direct or indirect subsidiary of AEP, and a Participant in the AEP Utility Money Pool (collectively referred to herein as "Operating Companies"):

AEP Generating Company  
AEP Texas Central Company  
AEP Texas North Company  
Appalachian Power Company  
Columbus Southern Power Company  
Indiana Michigan Power Company  
Kentucky Power Company  
Kingsport Power Company  
Ohio Power Company  
Public Service Company Of Oklahoma  
Southwestern Electric Power Company  
Wheeling Power Company

And

WHEREAS, in addition to the Operating Companies, the following are Participants in the AEP Utility Money Pool:

American Electric Power Service Corporation  
Blackhawk Coal Company  
Cedar Coal Company  
Central Appalachian Coal Company  
Central Coal Company  
Colomet, Inc.  
Conesville Coal Preparation Company  
Dolet Hills Lignite Company, LLC

Franklin Real Estate Company  
Indiana Franklin Reality, Inc.  
Simco, Inc.  
Southern Appalachian Coal Company

WHEREAS, the Participants from time to time have need to borrow funds on a short-term basis; and

WHEREAS, some of the Parties from time to time are expected to have funds available to loan on a short-term basis; and

WHEREAS, AEP and the Parties have established a pool (the "Utility Money Pool") to coordinate and provide for certain of the Participants' short-term cash requirements;

WHEREAS, AEPUF has been formed to fund the Utility Money Pool; and

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

## **ARTICLE I CONTRIBUTIONS AND BORROWINGS**

### Section 1.1. Contributions to the Utility Money Pool.

American Electric Power Service Corporation ("AEPSC") shall act as administrative agent of the Utility Money Pool. Each Participant, AEP, AEP Utilities, and AEPUF will determine on a daily basis, the amount of funds it has available for contribution to the Utility Money Pool. The determination of whether a Party at any time has surplus funds, or shall lend such funds to the Utility Money Pool, will be made by such Party's treasurer, any assistant treasurer, or by a designee thereof, on the basis of cash flow projections and other relevant factors, in such Party's sole discretion. Each Party may withdraw any of its funds at any time upon notice to AEPSC.

### Section 1.2 Rights to Borrow.

(a) Subject to the provisions of Section 1.4(b) of this Agreement, all short-term borrowing needs of the Participants may be met by funds in the Utility Money Pool to the extent such funds are available. Each Participant shall have the right to borrow from the Utility Money Pool from time to time, subject to the availability of funds and the limitations and conditions set forth herein and in the applicable orders of the Securities and Exchange Commission ("SEC") and other regulatory authorities. Each Participant may request loans from the Utility Money Pool from time to time during the period from the date hereof until this Agreement is terminated by written agreement of the Parties; provided, however, that the aggregate amount of all loans requested by any Participant hereunder shall not exceed the applicable borrowing limits set forth in applicable orders of the SEC and other regulatory authorities, resolutions of such Board of

Directors, such Party's governing corporate documents, and agreements binding upon such Party. No Participant shall be obligated to borrow from the Utility Money Pool if lower cost funds can be obtained from its own external borrowing.

(b) Neither AEP, AEP Utilities nor AEPUF will borrow funds from the Utility Money Pool or any Participant. Participants in the Utility Money Pool will not engage in lending and borrowing transactions with participants in the Nonutility Money Pool. The Utility Money Pool will not borrow from the Nonutility Money Pool.

Section 1.3 Source of Funds.

- (a) AEPSC administers the Utility Money Pool by matching up, to the extent possible, short-term cash surpluses and loan requirements of the various Participants. Participants' requests for short-term loans are met first from surplus funds of other Participants which are available to the Utility Money Pool. To the extent the Participant contributions of surplus funds to the Utility Money Pool are insufficient to meet Participant requests for short-term loans, AEP or AEP Utilities may contribute corporate funds to the extent available or borrowings may be made from external sources. Funds will be made available from such sources in such other order as AEPSC, as administrator of the Utility Money Pool, may determine will result in a lower cost of borrowing to companies borrowing from the Utility Money Pool, consistent with the individual borrowing needs and financial standing of the Parties providing funds to the Utility Money Pool.
- (b) External borrowings may be made by AEP, AEP Utilities, Inc., or AEPUF, each individually, a Lending Party, collectively Lending Parties, from the sale of commercial paper notes and/or other instruments authorized by the SEC, and/or bank borrowings ("External Funds"), the proceeds of which would be added to the Utility Money Pool, in each case to the extent permitted by applicable laws and regulatory orders. All debt issued in connection with the Utility Money Pool will be unsecured. External borrowings by AEP, AEP Utilities, or AEPUF will not be made unless there are no surplus funds in the treasuries of the Participants sufficient to meet borrowing needs. If it is determined that AEP can borrow money at a cheaper rate than AEPUF can, then AEP will fund the Utility Money Pool directly.
- (c) Each borrowing Participant will borrow pro rata from each fund source in the same proportion that the amount of funds provided from that fund source bears to the total amount of short-term funds available to the Utility Money Pool. On any day, when more than one fund source (e.g., surplus treasury funds of AEP, AEP Utilities or other Utility Money Pool participants ("Internal Funds") and External Funds), with different rates of interest, is used to fund loans through the Utility Money Pool, each borrowing party will borrow pro rata from each fund source in the same proportion that the amount of funds provided by that fund source bears to the total amount of short-term funds available to the Utility Money Pool.

Section 1.4 Authorization.

(a) The determination of whether a Participant or a Lending Party has at any time surplus funds to lend to the Utility Money Pool will be made by its treasurer, any assistant treasurer, or by a designee thereof.

(b) Any loan from the Utility Money Pool to a Participant shall be authorized by the borrowing Participant's treasurer, any assistant treasurer, or by a designee thereof. No Party shall be required to effect a borrowing through the Utility Money Pool if such Participant determines that it can (and is authorized to) effect such borrowing at lower cost through the sale of its own commercial paper or other instruments, or borrowing directly from banks.

Section 1.5 Investment of Investment Pool Funds.

Funds which are loaned from Participants into the Utility Money Pool which are not required to satisfy borrowing needs of other Participants ("Investment Pool") will be invested on the behalf of the Lending Parties in one or more short-term instruments ("External Investments"), including (i) interest-bearing accounts with banks; (ii) obligations issued or guaranteed by the U.S. government and/or its agencies and instrumentalities, including obligations under repurchase agreements; (iii) obligations issued or guaranteed by any state or political subdivision thereof, provided that such obligations are rated not less than "A" by a nationally recognized rating agency; (iv) commercial paper rated not less than "A-1" or "P-1" or their equivalent by a nationally recognized rating agency; (v) money market funds; (vi) bank certificates of deposit, (vii) Eurodollar funds; (viii) short-term debt securities rated AA or above by Standard & Poor's, Aa or above by Moody's Investors Service, or AA or above by Fitch Ratings; (ix) short-term debt securities issued or guaranteed by an entity rated AA or above by Standard & Poor's, Aa or above by Moody's Investors Service, or AA or above by Fitch Ratings; and (x) such other investments as are permitted by Section 9(c) of the Act and Rule 40 thereunder.

No funds from the Utility Money Pool will be invested in EWG's or FUCO's.

Section 1.6 Utility Money Pool Interest.

The interest rate applicable on any day to then outstanding loans through the Utility Money Pool, whether or not evidenced by a promissory demand note, will be the composite weighted average daily effective cost incurred by the Lending Parties for External Funds outstanding on that date. If there are no External Funds outstanding on that date, then the rate would be the certificate of deposit yield equivalent of the 30-day Federal Reserve "A2/P2" Non-Financial Commercial Paper Composite Rate (the "Composite"), or if no Composite is established for that day, then the applicable rate will be the Composite for the next preceding day for which a composite is established.

If the Composite shall cease to exist, then the rate would be the composite which then most closely resembles the Composite and/or most closely mirrors the pricing the Lending Parties would expect if it had External Funds.

Section 1.7 Investment Pool Interest.

Interest income related to External Investments will be calculated daily and allocated back to Participants on the basis of their relative contribution to the Investment Pool funds on that date.

Section 1.8 Repayment.

Each Participant receiving a loan hereunder shall repay the principal amount of such loan, together with all interest accrued thereon, on demand and in any event not later than the expiration date of SEC authorization for the operation of the Utility Money Pool. All loans made through the Utility Money Pool may be prepaid by the borrower without premium or penalty.

Section 1.9 Form of Loans to Participants.

Loans to the Participants through the Utility Money Pool will be made pursuant to open-account advances, although any AEPUF or Participant would at all times be entitled to receive upon request a promissory note evidencing the transaction. Any such note shall: (a) be substantially in the form attached herewith as Exhibit A; (b) be dated as of the date of the initial borrowing; (c) mature on demand or on a date mutually agreed to by the Parties to the transaction, but in any event not later than the expiration date of the SEC authorization for the operation of the Utility Money Pool; and (d) be repayable in whole at any time or in part from time to time, without premium or penalty.

**ARTICLE II  
OPERATION OF THE UTILITY MONEY POOL**

Section 2.1 Operation.

Operation of the Utility Money Pool, including record keeping and coordination of loans, will be handled by AEPSC under the authority of the treasurer or any assistant treasurer of AEP and/or AEPSC. AEPSC shall be responsible for the determination of all applicable interest rates and charges to be applied to any loans from the Utility Money Pool and earnings to be applied to any loans to the Utility Money Pool and/or Investment Pool outstanding at any time hereunder, shall maintain records of all advances, interest charges and accruals and interest and principal payments for purposes hereof, and shall prepare periodic reports thereof for the Parties. Services rendered by AEPSC will be "at cost" in accordance with rules of the SEC.

Section 2.2 Certain Costs.

The cost of fees and/or compensating balances paid to banks to maintain credit lines will be allocated to the Participants on the basis of relative maximum non-coincidental borrowings of the Participants.

Section 2.3 Event of Default.

If any Participant shall generally not pay its debts as such debts become due, or shall admit in writing its inability to pay its debts generally, or shall make a general assignment for the benefit of creditors, or any proceeding shall be instituted by or against any Participant seeking to adjudicate it a bankrupt or insolvent, then AEPSC, on behalf of the Utility Money Pool, may, by notice to the Participant, terminate the Utility Money Pool's commitment to the Participant and/or declare the unpaid principal amount of any loans to such Participant, and all interest thereon, to be forthwith due and payable and all such amounts shall forthwith become due and payable without presentment, demand, protest or other formalities of any kind, all of which are hereby expressly waived by the Participant.

**ARTICLE III  
AEP UTILITIES FUNDING LLC**

Section 3.1 AEPUF.

AEPUF is a special purpose financing conduit, formed to fund the Utility Money Pool. AEPUF may obtain funds from external sources or from AEP or AEP Utilities. AEP, AEP Utilities and the Operating Companies are also authorized to fund the Utility Money Pool through the issuance of short-term debt. AEPUF will have a separate bank account for all Utility Money Pool funds. AEPUF may issue commercial paper or other short-term debt for the benefit of the Utility Money Pool participants and will lend cash proceeds of the issuance of commercial paper to each Participant as said Participant's needs are identified. When AEPUF directly issues commercial paper to dealers to fund the Utility Money Pool, each Operating Company that borrows from AEPUF must maintain comparable debt ratings equal to or greater than AEPUF and maintain requisite backup facilities with one or more financial institutions.

Section 3.2 Loans.

AEPUF shall provide the cash proceeds of each issuance of commercial paper or other short-term debt to the Utility Money Pool. The proceeds of borrowings by AEPUF will not be loaned to AEP or AEP Utilities. The proceeds of the borrowings of AEPUF will be used to repay AEPUF's borrowings or be invested to continue funding the Utility Money Pool.

Section 3.3 Several Liability.

It is expressly agreed that the obligations of each Participant to AEPUF are several and not joint and, subject to paragraph 3.4 below, that each Participant shall not be responsible to AEPUF or any assignee or creditor of AEPUF for any payment in excess of payments due under any Participant's outstanding note and its pro rata share of other expenses and administrative costs of AEPUF in connection with its funding of the Utility Money Pool. No Participant will be liable for the borrowings of any other affiliate under the Utility Money Pool.

Section 3.4 Placement Agents.

(a) As a condition precedent to each commercial paper dealer and placement agent (each, a "Placement Agent") entering into a dealer or placement agreement with AEPUF (each such agreement, a "Placement Agreement"), each Participant agrees: (i) to pay all costs, expenses, liabilities, losses and damages, including liabilities in respect of the AEPUF's indemnification obligations under the Placement Agreements (collectively, the "Liabilities") which it may incur relating to the offer and sale of AEPUF's commercial paper, the proceeds of which were used to make any loan to such Participant under this agreement, and (ii) to pay its Pro Rata Share of all other Liabilities which AEPUF may incur other than any such Liability which relates to the offer and sale of AEPUF's commercial paper the proceeds of which were used to make any loan to any other participant in the Utility Money Pool in respect of which such other affiliate is obligated to pay the full amount of such Liability. As used herein the term "Pro Rata Share" of any Liability shall mean an amount equal to the product of such Liability and a fraction expressed as a percentage (x) the numerator of which is the average outstanding loans made to the Participant during the period from the date which is three years prior to the date such Liability is due and payable to the date such Liability is due and payable (the "Determination Period"), and (y) the denominator of which is the average aggregate outstanding loans made during the Determination Period to the Participant and all other Participants which received loans from AEPUF and which are obligated to pay such Liability in accordance with this provision.

(b) Each Participant and AEPUF hereby acknowledge and agree that each Placement Agent is a third-party beneficiary of this Article III and is entitled to the benefits of the obligations of each separate Participant contained in this Article III and is entitled to bring any action to enforce such obligations directly against the separate Participant. In the case of any specific Liability arising out of or in connection with the Placement Agreement, each Participant shall pay the amount of such Participant's Liability directly to such Placement Agent or as the Placement Agent directs.

(c) This Article III shall not be amended or modified without the prior written consent of each Placement Agent. The agreements and obligations of each of the Participants set forth in this Article III shall survive the termination of this Agreement.

**ARTICLE IV  
MISCELLANEOUS**

Section 4.1 Amendments.

No amendment to this Agreement shall be effective unless the same be in writing and signed by all Parties thereto.

Section 4.2 Legal Responsibility.

Nothing herein contained shall render AEP or any Party liable for the obligations of any other Party(ies) hereunder and the rights, obligations and liabilities of AEP and the Parties are several in accordance with their respective obligations, and not joint.

Section 4.3 Governing Law.

This Agreement shall be governed by, and construed in accordance with, the laws of the State of New York.



IN WITNESS WHEREOF, the undersigned Parties have duly caused this document to be signed on their behalf on the date first written above by the undersigned thereunto duly authorized.

**AMERICAN ELECTRIC POWER COMPANY, INC.  
and  
AEP UTILITIES, INC.  
AEP UTILITY FUNDING LLC  
AMERICAN ELECTRIC POWER SERVICE CORPORATION, as  
Agent and Participant**

**Participants:**

**AEP GENERATING COMPANY  
AEP TEXAS CENTRAL COMPANY  
AEP TEXAS NORTH COMPANY  
APPALACHIAN POWER COMPANY  
COLUMBUS SOUTHERN POWER COMPANY  
INDIANA MICHIGAN POWER COMPANY  
KENTUCKY POWER COMPANY  
KINGSPORT POWER COMPANY  
OHIO POWER COMPANY  
PUBLIC SERVICE COMPANY OF OKLAHOMA  
SOUTHWESTERN ELECTRIC POWER COMPANY  
WHEELING POWER COMPANY**

**BLACKHAWK COAL COMPANY  
CEDAR COAL COMPANY  
CENTRAL APPALACHIAN COAL COMPANY  
CENTRAL COAL COMPANY  
COLOMET, INC.  
CONESVILLE COAL PREPARATION COMPANY  
DOLET HILLS LIGNITE COMPANY, LLC  
FRANKLIN REAL ESTATE COMPANY  
INDIANA FRANKLIN REALTY, INC.  
SIMCO, INC.  
SOUTHERN APPALACHIAN COAL COMPANY**

By: Wendy D. Hargus  
Assistant Treasurer of each  
of the above-listed companies.

EXHIBIT A

**FORM OF UTILITY MONEY POOL NOTE  
TO BE EXECUTED BY BORROWING PARTIES  
TO AEP OR OTHER PARTIES**

\_\_\_\_\_, 20\_\_

FOR VALUE RECEIVED, the undersigned, \_\_\_\_\_ (the "Borrower"), hereby promises to pay to the order of \_\_\_\_\_ (the "Lender") at its principal office in \_\_\_\_\_, on demand or on \_\_\_\_\_, 20\_\_, or at the option of the Borrower, whichever first occurs, but in any event not later than the expiration date of the SEC authorization for the operation of the Utility Money Pool, the principal sum set forth on the attachment hereto as "Principal Amount Outstanding." This note may be paid in full at any time or in part from time to time without premium or penalty. The Principal Amount Outstanding shall bear interest at the composite weighted average daily effective cost incurred by the Lending Parties for External Funds outstanding on that date. If there are no External Funds outstanding on that date, then the rate would be the CD yield equivalent of the 30-day Federal Reserve "A2/P2" Non-Financial Commercial Paper Composite Rate (the "Composite"), or if no Composite is established for that day, then the applicable rate will be the Composite for the next preceding day for which a Composite is established.

This Note shall be governed by, and construed and interpreted in accordance with, the Laws of the State of New York.

IN WITNESS WHEREOF, the undersigned, pursuant to due authorization, has caused this Note to be executed in its name and on its behalf by its duly authorized officer.

\_\_\_\_\_  
(Name of Borrower)

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Title: \_\_\_\_\_

<u>Date</u>	<u>Loan (Repayment)</u>	<u>Principal Amount Outstanding</u>	<u>Rate</u>	<u>Interest</u>
_____	_____	_____	_____	_____
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_____	_____	_____	_____	_____



American Electric Power  
1 Riverside Plaza  
Columbus, OH 43215-2373  
AEP.com

Cardinal Operating Company  
155 W. Nationwide Blvd.  
Columbus, Ohio 43215

Buckeye Power, Inc.  
6677 Busch Blvd.  
Columbus, Ohio 43229

AEP Generation Resources Inc.  
155 W. Nationwide Blvd., Suite 500  
Columbus, OH 43215

December 31, 2013

Re: Cardinal Operating Company's ("Cardinal"), and the Cardinal Owners'<sup>1</sup> Rights and Obligations Related to Kentucky Power Company's ("KPCo") Rights and Obligations under Supply Agreement dated March 11, 2005, as amended, between CertainTeed Gypsum West Virginia, Inc. ("CertainTeed") (formerly BPB West Virginia, Inc.) and KPCo (the "CT Agreement")

Gentlemen:

Consistent with the CT Agreement, CertainTeed owns, operates, and maintains gypsum storage facilities, manufacturing facilities, and other facilities and equipment (collectively the "CertainTeed Plant") at a location near the Mitchell Plant and KPCo, as the operator and 50% owner of the Mitchell Plant and assignee of the CT Agreement, provides certain quantities of Gypsum Filter Cake to the CertainTeed Plant.

In connection with Ohio Power Company's ("OPCo's") structural corporate separation, i.e. the corporate reorganization that will result in the legal separation of OPCo's generation and power marketing business from its transmission and distribution businesses, among other things: (1) KPCo has assumed (i) a 50% ownership interest in the Mitchell Plant, and (ii) OPCo's interest in the CT Agreement, and (2) OPCo has assigned to Resources and Resources has assumed (i) OPCo's ownership interest in the Cardinal Plant, (ii) OPCo's interest in the Cardinal Station Agreement, (iii) OPCo's 50% ownership interest in Cardinal, and (iv) a 50% ownership interest in the Mitchell Plant (such transactions being referred to herein collectively as the "Corporate Separation").

The parties acknowledge that (i) the Stockpile Start Date under the CT Agreement was December 15, 2006, (ii) the Commencement Date of the CT Agreement is January 1,

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<sup>1</sup> The Cardinal Owners means AEP Generation Resources Inc. ("Resources") and Buckeye Power, Inc. ("Buckeye"), collectively. Cardinal Operating Company is owned 50% by Resources and 50% by Buckeye.

2008, and (iii) the flue gas desulfurization system (“FGD System”) at Unit 2 at the Mitchell Plant became operational in January 2007 and that the FGD System at Unit 1 at the Mitchell Plant became operational in May 2007, prior to the installation and operation of FGD Systems at the Cardinal Plant and the FGD System at Cardinal Unit No. 1 was previously installed and is operational, and the FGD System at Cardinal Unit No. 2 was previously installed and is operational.

As background, (1) CertainTeed has not issued a No Stockpile Notice pursuant to Section 2.2(e) of the CT Agreement or a No Build Notice pursuant to Section 2.4(b) of the CT Agreement, (2) CertainTeed no longer has the right under the CT Agreement to issue a No Stockpile Notice or a No Build Notice, (3) pursuant to Section 3.1(b) of the original CT Agreement, CertainTeed was informed that the Cardinal Commitment is zero, and (4) CertainTeed has not exercised the option under Section 3.1(c) of the original CT Agreement to purchase an additional three hundred thousand (300,000) Net Dry Tons of Gypsum Filter Cake per Contract Year for a period of five (5) years beginning July 1, 2009 and CertainTeed no longer has the right to elect such option.

KPCo represents and warrants that it has supplied the Cardinal Owners with a true and complete copy of the CT Agreement. KPCo also covenants and agrees that it will provide to the Cardinal Owners true and complete copies of any further amendments to the CT Agreement that KPCo and CertainTeed may enter into from time to time after the date of this letter agreement.

In order to assist KPCo in fulfilling its obligations to supply Gypsum Filter Cake to CertainTeed under the CT Agreement, effective as of the consummation of Corporate Separation, the Cardinal Owners will continue supplying Gypsum Filter Cake from the Cardinal Plant, including Cardinal Unit Nos. 1 and 2, to KPCo upon the terms and conditions hereinafter set forth.

1. Section 3.1(a) of the CT Agreement provides for delivery and acceptance, subject to adjustment, of eight hundred thousand (800,000) Net Dry Tons of Gypsum Filter Cake per Contract Year (the “Contract Commitment”). Each Contract Year, beginning on the Commencement Date, Cardinal agrees to deliver to CertainTeed the quantity of Gypsum Filter Cake equal to the Contract Commitment less the Net Dry Tons delivered by KPCo from the Mitchell Plant to CertainTeed, provided that in no event shall Cardinal be obligated to deliver more Gypsum Filter Cake than the Cardinal Owners’ Initial Units have available for delivery. Cardinal shall be permitted to dispose of Gypsum Filter Cake other than by delivering it to the CertainTeed Plant at the Mitchell Site, without restrictions, in the same circumstances that KPCo is permitted under the CT Agreement to dispose of Gypsum Filter Cake other than by selling it to CertainTeed, without restrictions. Cardinal shall be excused from making deliveries of Gypsum Filter Cake to the CertainTeed Plant to the extent that KPCo is excused from making deliveries of Gypsum Filter Cake under the CT Agreement, and Cardinal shall be excused from making deliveries of Gypsum Filter Cake, whether or not KPCo is excused from making deliveries of Gypsum Filter Cake under the CT Agreement, for the same reasons that KPCo would be excused from making deliveries under the CT Agreement, to the extent

that any of such reasons are applicable to Cardinal Unit Nos. 1 or 2, e.g. a Force Majeure Event applicable to Cardinal. The Point of Delivery for the Gypsum Filter Cake to be delivered by Cardinal shall be the applicable Point of Delivery specified in the CT Agreement for the delivery of the Contract Commitment of Gypsum Filter Cake from the Cardinal Plant.

With respect to the Contract Commitment, for each Net Dry Ton of Gypsum Filter Cake delivered to CertainTeed from the Cardinal Plant by the Cardinal Owners, Cardinal, as agent for the Cardinal Owners, shall be entitled to receive from KPCo an amount equal to the payments received by KPCo from CertainTeed for such Gypsum Filter Cake under Section 4.1(a) of the CT Agreement (subject to adjustment as provided in Sections 4.2 and 4.4 of the CT Agreement); provided, that Cardinal, as agent for Buckeye, shall be entitled to receive from KPCo (I) a minimum payment per Contract Year starting in 2014 through 2017 equal to the product of (a) Five Hundred Thousand Dollars (\$500,000.00), multiplied by (b) the quotient of (i) the price per Net Dry Ton that CertainTeed is obligated to pay to KPCo under Section 4.1(a) of the CT Agreement (as adjusted pursuant to Section 4.2 of the CT Agreement), divided by (ii) Three Dollars (\$3.00) per Net Dry Ton, regardless of the number of tons of Gypsum Filter Cake delivered to CertainTeed by Cardinal from the Cardinal Plant, and (II) a minimum payment per Contract Year thereafter equal to the amount determined pursuant to the calculation described in clause (I) above, unless the circumstances surrounding this letter agreement have changed so that such calculation would produce an inequitable result, in which case, the parties shall mutually agree upon a revised calculation of Cardinal's minimum payment to be received from KPCo consistent with the relative benefits and burdens each party is receiving under this letter agreement in light of such changed circumstances. The quantity of Gypsum Filter Cake delivered to CertainTeed from the Cardinal Plant shall be determined by weighing at the Cardinal Plant the actual Net Dry Tons of Gypsum Filter Cake to be delivered to the Mitchell Plant from the Cardinal Plant. Cardinal shall also be entitled to receive the Cardinal Percentage Contribution (as defined below) of the payments received by KPCo from Certain Teed under Sections 7.4 and 7.5 of the CT Agreement resulting from under acceptance or discontinued acceptance of the Contract Commitment, and Cardinal shall be required to pay the Cardinal Percentage Contribution (as defined below) of any amounts payable to CertainTeed by KPCo under Sections 7.2 and 7.3 of the CT Agreement relating to undersupply or discontinued supply of the Contract Commitment by KPCo, regardless of the number of tons of Gypsum Filter Cake delivered to CertainTeed by Cardinal from the Cardinal Plant.

2. The parties to this letter agreement acknowledge that OPCo and Buckeye made certain capital expenditures in connection with the CT Agreement in order for deliveries of Gypsum Filter Cake from the Cardinal Plant to be accepted by CertainTeed. Such facilities ("Mitchell Unloading Improvements") at the Mitchell Plant (see Exhibit 1 for more detail) included (a) the installation of a Gypsum Conveyor System, (b) a barge unloading facility, (c) the relocation of transmission towers, and (d) the past remediation of certain real property. Buckeye made a capital contribution to the cost of the Mitchell Unloading Improvements in the amount of \$7,317,347.00 and neither Buckeye nor

Cardinal shall be required to make any further capital contribution to the cost of the Mitchell Unloading Improvements.

The "Cardinal Percentage Contribution" through Contract Year 2017 is 25.46%. Commencing with Contract Year 2018 and every fifth Contract Year, after Contract Year 2017, the Cardinal Percentage Contribution shall be adjusted prospectively to equal the percentage equal to the quotient of (a) the actual aggregate number of Net Dry Tons of Gypsum Filter Cake delivered to the CertainTeed Plant from the Cardinal Plant during the preceding five Contract Years, divided by (b) 4,000,000 Net Dry Tons of Gypsum Filter Cake (i.e. the annual Contract Commitment multiplied by the number of Contract Years). The adjusted Cardinal Percentage Contribution shall be applicable under this letter agreement for the next five Contract Years.

3. Mitchell Unloading Improvements operating and maintenance ("O&M") expenses related shall be allocated to the Cardinal Plant, on a monthly basis, as follows: (a) for O&M expenses related to the Gypsum Conveyor System at the Mitchell Plant, in the same ratio as the actual Net Dry Tons of Gypsum Filter Cake delivered to CertainTeed from the Cardinal Plant for the month bear to the total Net Dry Tons of Gypsum Filter Cake delivered to CertainTeed under the CT Agreement for such month, (b) for O&M expenses related to the E-Crane, barge cells, and barge handling system portions of the unloading facilities at the Mitchell Plant that are used for unloading both Gypsum Filter Cake from the Cardinal Plant and limestone, in the same ratio as the actual Net Dry Tons of Gypsum Filter Cake delivered to CertainTeed from the Cardinal Plant for the month bear to the total Net Dry Tons of Gypsum Filter Cake from the Cardinal Plant and limestone delivered to the Mitchell Plant for such month, and (c) for all other O&M expenses, which expenses are related solely to the remaining portion of the barge facility for unloading Gypsum Filter Cake from Cardinal at the Mitchell Plant including conveyors BC-17 and BC-18, 100%. Cardinal agrees to pay, on a monthly basis, the O&M expenses related to the Mitchell Unloading Improvements (allocated to the Cardinal Plant as described above and not otherwise paid by CertainTeed pursuant to the CT Agreement) and Cardinal will allocate these O&M expenses between Buckeye and Resources or cause Buckeye and Resources to pay their portion directly to KPCo, and neither Cardinal Owner will be responsible for the other Cardinal Owner's share of such O&M expenses.

4. Section 7.1 of the CT Agreement provides for certain remedies in the event that KPCo delivers Non-Compliant Material to CertainTeed. Cardinal and KPCo acknowledge that the Gypsum Filter Cake from the Cardinal Plant and the Mitchell Plant may be commingled before being delivered to the CertainTeed Plant. In the event the parties are unable to determine the origin of any Non-Compliant Material, liability for delivery of any Non-Compliant Material pursuant to Section 7.1 of the CT Agreement, including any reduction in the price paid by CertainTeed for the Non-Compliant Material and for the payments described in Section 7.1(b) of the CT Agreement, shall be assumed by each of KPCo and Cardinal in proportion to the quantity of Gypsum Filter Cake delivered by the respective such party during the three calendar months preceding such delivery (i.e. Gypsum Filter Cake delivered from the Mitchell Plant shall be deemed to be

delivered by KPCo and Gypsum Filter Cake delivered from the Cardinal Plant shall be deemed to be delivered by Cardinal). In the event the parties are able to determine the origin of any Non-Compliant Material, liability for delivery of any Non-Compliant Material pursuant to Section 7.1 of the CT Agreement shall be assumed entirely by the party, i.e. KPCo, Buckeye or Resources, delivering the Non-Compliant Material.

5. Cardinal shall make modifications to the Cardinal Plant Unit No. 1 FGD System in the circumstances described in Sections 18.1 and 18.2 of the CT Agreement and pay the Modifications Cost in the circumstances described in Sections 18.1 and 18.2 of the CT Agreement, if (a) the Modifications Cost is less than the aggregate Fully Loaded Cost to Landfill the Gypsum Filter Cake that Cardinal would reasonably expect to deliver from its Cardinal Unit No. 1 FGD System to the CertainTeed Plant pursuant to and over the remaining term of this letter agreement, or (b) if the Modifications Cost is greater than the aggregate Fully Loaded Cost to Landfill the Gypsum Filter Cake that Cardinal would reasonably expect to deliver from its Cardinal Unit No. 1 FGD System pursuant to and over the remaining term of this letter agreement, and CertainTeed or KPCo agrees to pay Cardinal the difference between such costs. If the Modifications Cost is more than the aggregate Fully Loaded Cost to Landfill the Gypsum Filter Cake and neither CertainTeed nor KPCo agrees to pay Cardinal the difference, then Cardinal shall not be deemed in breach of this letter agreement and either Cardinal or Resources may terminate this letter agreement without any further obligation or liability to the other parties hereunder.

Cardinal shall make modifications to the Cardinal Plant Unit No. 2 FGD System in the circumstances described in Sections 18.1 and 18.2 of the CT Agreement and pay the Modifications Cost in the circumstances described in Sections 18.1 and 18.2 of the CT Agreement, if (a) the Modifications Cost is less than the aggregate Fully Loaded Cost to Landfill the Gypsum Filter Cake that Cardinal would reasonably expect to deliver from its Cardinal Unit No. 2 FGD System to the CertainTeed Plant pursuant to and over the remaining term of this letter agreement, or (b) if the Modifications Cost is greater than the aggregate Fully Loaded Cost to Landfill the Gypsum Filter Cake that Cardinal would reasonably expect to deliver from its Cardinal Unit No. 2 FGD System pursuant to and over the remaining term of this letter agreement, and CertainTeed or KPCo agrees to pay Cardinal the difference between such costs. If the Modifications Cost is more than the aggregate Fully Loaded Cost to Landfill the Gypsum Filter Cake and neither CertainTeed nor KPCo agrees to pay Cardinal the difference, then Cardinal shall not be deemed in breach of this letter agreement and either Cardinal or Buckeye may terminate this letter agreement without any further obligation or liability to the other parties hereunder.

6. This letter agreement may not be assigned by any party without the prior written consent of the other parties. Notwithstanding the foregoing, KPCo may, without Buckeye's, Resources' or Cardinal's consent, assign this letter agreement to an Affiliate (as defined in the CT Agreement) that is the permitted assignee of KPCo's rights and obligations under the CT Agreement. No assignment or transfer in whole or in part of any party's interest in this letter agreement shall relieve such party of its obligations hereunder, unless otherwise agreed to in a writing signed by all the parties hereto. Cardinal and Buckeye acknowledge and agree that OPCo shall be released from its



obligations under the CT Agreement relating to its status as owner of the Mitchell Plant accruing after the effective date of the consummation of Corporate Separation, which date is anticipated to be December 31, 2013, but such release will not pertain to performance of OPCo's obligations under the CT Agreement accruing on and prior to the effective date of the consummation of the Corporate Separation, and Buckeye acknowledges and agrees that KPCo is the only entity that will have contractual obligations under the CT Agreement upon the closing of the Corporate Separation and not any intermediary assignees.

7. This letter agreement shall become effective upon the consummation of the Corporate Separation. The obligations of the parties under this letter agreement shall terminate upon the termination or expiration of the CT Agreement or in the event that KPCo is otherwise relieved of its obligations to deliver the Contract Commitment of Gypsum Filter Cake to CertainTeed under the CT Agreement. In the event the Cardinal Station Agreement terminates prior to the termination of this letter agreement, then this letter agreement shall survive the termination of the Cardinal Station Agreement and continue in effect until terminated in accordance with its terms. To the extent that provisions of the Cardinal Station Agreement relate to the implementation of the terms of this letter agreement, such provisions of the Cardinal Station Agreement shall continue in effect until the termination of this letter agreement. All capitalized terms used but not defined herein shall have the meanings ascribed to them in the CT Agreement or the Station Agreement dated as of January 1, 1968, as amended (the "Cardinal Station Agreement"), as appropriate.

8. This letter agreement shall be construed under and in accordance with the laws of the State of Ohio without regard to conflicts of laws principles.

9. Every provision of this letter agreement is intended to be severable. If any term or provision hereof is illegal or invalid for any reason whatsoever, such illegality or invalidity shall not affect the validity of the remainder of this letter agreement, provided the essential purposes of this letter agreement are not frustrated.

10. This letter agreement may be executed by facsimile and in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

11. No waiver of any breach of this letter agreement shall be held to be a waiver of any other or future breach of this letter agreement.

12. The parties to this letter agreement shall enter into an amendment to this letter agreement containing mutually agreeable terms and conditions in the event that (a) KPCo establishes a commitment of Net Dry Tons of Gypsum Filter Cake to be delivered from the Cardinal Plant under the CT Agreement, (b) KPCo permits CertainTeed to purchase additional Net Dry Tons of Gypsum Filter Cake under the CT Agreement, or (c) the CT Agreement is amended or modified in any other material way. KPCo shall not establish a commitment of Net Dry Tons of Gypsum Filter Cake to be delivered from the Cardinal

Plant under the CT Agreement without the prior consent of Cardinal. Pricing adjustments pursuant to Section 4.2 of the CT Agreement shall not, for purposes of this Section 14, be considered a material amendment or modification of the CT Agreement. Any such amendment shall contain such terms and conditions as may be necessary to define the Cardinal Owners' and Cardinal's rights and obligations with respect to the amended CT Agreement. Buckeye or Cardinal may terminate this letter agreement in the event that KPCo enters into a material amendment or modification of the CT Agreement without Buckeye's or Cardinal's prior consent and the parties hereto are unable to agree on the terms and conditions of an amendment to this letter agreement setting forth the Cardinal Owners' and Cardinal's rights and obligations with respect to such amended CT Agreement.

13. Upon the request of Cardinal or Buckeye, KPCo shall provide Cardinal or Buckeye with access to only those books and records required to be maintained by KPCo under Section 6.5 of the CT Agreement.

14. The same limits of liability set forth in Section 11.3 of the CT Agreement and applicable to KPCo shall be applicable to Cardinal and the Cardinal Owners under this letter agreement, except that Cardinal's and the Cardinal Owners' aggregate liability under this letter agreement shall not exceed that portion of the aggregate limits of liability applicable to KPCo under Section 11.3 of the CT Agreement equal to the Cardinal Percentage Contribution.

15. Neither Cardinal Owner (Buckeye or Resources), nor Cardinal are parties to the CT Agreement nor is this letter agreement intended to make them parties to the CT Agreement, nor is CertainTeed or any other party intended to be a third party beneficiary of this letter agreement or to have any right to enforce KPCo's, Buckeye's, Resources' or Cardinal's rights or obligations under this letter agreement. Nothing contained herein shall be construed to imply a partnership or joint venture relationship or principal/agent relationship between the parties hereto. KPCo is not entitled to create any obligations on behalf of Cardinal or the Cardinal Owners with CertainTeed or any other person or entity; provided, however, that Cardinal and the Cardinal Owners agree that KPCo may make pricing adjustments pursuant to Section 4.2 of the CT Agreement and may make other non-material amendments and modifications to the CT Agreement without Cardinal's or the Cardinal Owners' consent and without requiring any amendments to this letter agreement, and Cardinal and the Cardinal Owners each acknowledge that such pricing adjustments may affect the payments that Cardinal receives under Section 1 of this letter agreement. With respect to the subject matter of this letter agreement, KPCo shall not enter into any contracts or take any other actions, as agent or otherwise, with CertainTeed or any other third parties in the name of Cardinal or either Cardinal Owner without the prior written consent of Cardinal or such Cardinal Owner, as applicable.

16. Each party hereto agrees not to disclose, either directly or indirectly, the terms of this letter agreement to a third party without the written consent of the other parties (other than to a party's or its Affiliates' directors, trustees, employees, lenders, counsel, accountants or prospective permitted purchasers of all or substantially all of the assets of

such party or its Affiliates), except in order to comply with any applicable law, order, regulation or exchange rule; provided, each party shall notify the other parties of any proceeding of which it is aware which may result in disclosure and use reasonable efforts to prevent or limit the disclosure.

17. This letter agreement constitutes the entire understanding of the parties hereto with respect to the subject matter hereof, and no amendment, modification or alteration of the terms hereof shall be binding unless the same be in writing, dated subsequent to the date hereof and duly approved and executed by each party.

If you are in agreement with the foregoing, please so indicate by signing the enclosed duplicate of this letter in the space provided and returning it to me.

Sincerely,

Kentucky Power Company

By:  \_\_\_\_\_

Name: Timothy Light

Its: Vice President

[Signatures on Following Page]

Agreed to this 31st day of December, 2013

Cardinal Operating Company

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

AEP Generation Resources Inc.

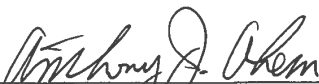
By: Charles E Zebula  
Name: Charles E Zebula  
Its: President

Buckeye Power, Inc.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

Agreed to this 31st day of December, 2013

Cardinal Operating Company

By:   
Name: Anthony J. Ahern  
Its: Executive Vice President

AEP Generation Resources Inc.

By: \_\_\_\_\_  
Name: \_\_\_\_\_  
Its: \_\_\_\_\_

Buckeye Power, Inc.


By:   
Name: Anthony J. Ahern  
Its: President & CEO

EXHIBIT 1 -- Mitchell Wallboard Cost Summary

Table with columns: Vendor, Vendor, Contract#PO, Steps, Labor, Material, Engineering, Other, Estimate at Completion, Actual Cost thru August, Actual Cost Final, Original R&S Claim, Notes, Status, Buckeye Contribution, Buckeye Contribution Final, Buckeye Contribution @ 00/30/07, Buckeye Contribution, Buckeye Contribution Final, Buckeye Contribution @ 00/30/07, Buckeye Contribution. Rows include items like Gypsum Storage Building & Overhead Conveyor, Creep Property, Grading, etc.

Summary table showing Grand Total, Actual Cost Final, and Buckeye Contribution Final. Grand Total: \$ 23,103,880; Actual Cost Final: \$ 25,528,894; Buckeye Contribution Final: \$ 3,425,014.

Notes: 12/12/2008

Final cost allocations

AGGREGATE CAPITAL EXPENDITURES \$ 34,765,138 (Actual Cost Final)

BUCKEYE'S AGGREGATE CAPITAL CONTRIBUTION \$ 7,317,247 (Lessor of Applicable of Buckeye's allocated Contributions and \$7,317,247)

BUCKEYE'S PERCENTAGE CONTRIBUTION 21.03% (Buckeye's Appropriate Capital Contributions / Applicable Capital Expenditures)

**CONFIDENTIAL AND PROPRIETARY**  
*Grid Assurance LLC*

**GRID ASSURANCE LLC  
AMENDED AND RESTATED  
SUBSCRIPTION AGREEMENT**

**COVER PAGE**

This Amended and Restated Subscription Agreement (this “*Agreement*”) is made and entered into as of April 2, 2019, (the “*Execution Date*”) (and amends and restates in its entirety that certain subscription agreement among the parties hereto dated February 20, 2017, as amended), among GRID ASSURANCE LLC, a limited liability company organized under the laws of the State of Delaware (“*Grid Assurance*”), American Electric Power Service Corporation solely in its capacity as agent on behalf of PUBLIC SERVICE COMPANY OF OKLAHOMA, a corporation organized under the laws of the State of Oklahoma, American Electric Power Service Corporation solely in its capacity as agent on behalf of OHIO POWER COMPANY, a corporation organized under the laws of the State of Ohio, American Electric Power Service Corporation solely in its capacity as agent on behalf of AEP TEXAS INC., a corporation organized under the laws of the State of Delaware, American Electric Power Service Corporation solely in its capacity as agent on behalf of AEP OHIO TRANSMISSION COMPANY, INC., a corporation organized under the laws of the State of Ohio, American Electric Power Service Corporation solely in its capacity as agent on behalf of AEP OKLAHOMA TRANSMISSION COMPANY, INC., a corporation organized under the laws of the State of Oklahoma,

and the following additional Subscriber Parties added in accordance with the terms of that certain Amended and Restated Multi-Subscriber Addendum among the parties hereto:

ELECTRIC TRANSMISSION TEXAS, LLC, a corporation organized under the laws of the State of Delaware, American Electric Power Service Corporation solely in its capacity as agent on behalf of APPALACHIAN POWER COMPANY, a corporation organized under the laws of the State of Virginia, American Electric Power Service Corporation solely in its capacity as agent on behalf of AEP APPALACHIAN TRANSMISSION COMPANY, INC., a corporation organized under the laws of the State of Virginia, American Electric Power Service Corporation solely in its capacity as agent on behalf of INDIANA MICHIGAN POWER COMPANY, a corporation organized under the laws of the State of Indiana, American Electric Power Service Corporation solely in its capacity as agent on behalf of AEP INDIANA MICHIGAN TRANSMISSION COMPANY, INC., a corporation organized under the laws of the State of Indiana, American Electric Power Service Corporation solely in its capacity as agent on behalf of KINGSPORT POWER COMPANY, a corporation organized under the laws of the State of Virginia, American Electric Power Service Corporation solely in its capacity as agent on behalf of KENTUCKY POWER COMPANY, a corporation organized under the laws of the State of Kentucky, American Electric Power Service Corporation solely in its capacity as agent on behalf of AEP KENTUCKY TRANSMISSION COMPANY, INC., a corporation organized under the laws of the State of Kentucky, American Electric Power Service Corporation solely in its capacity as agent on behalf of SOUTHWESTERN ELECTRIC POWER COMPANY, a corporation organized under the laws of the State of Delaware, American Electric Power Service Corporation solely in its capacity as agent on behalf of WHEELING POWER COMPANY, a corporation organized under the laws of the State of West Virginia, American Electric Power Service Corporation solely in its capacity as agent on behalf of AEP WEST VIRGINIA TRANSMISSION COMPANY, INC., a corporation organized under the laws of the State of West Virginia (Public Service Company of Oklahoma, Ohio Power Company, AEP Texas Inc., AEP Ohio Transmission Company, Inc., AEP Oklahoma Transmission Company, Inc., Appalachian Power Company, AEP Appalachian Transmission Company, Inc., Electric Transmission Texas, LLC, Indiana Michigan Power Company, AEP Indiana Michigan Transmission Power Company, Inc., Kingsport Power Company, Kentucky Power Company, AEP Kentucky Transmission Company, Inc., Southwestern Electric Power Company, Wheeling Power Company and AEP West Virginia Transmission Company, Inc. being referred to collectively as “*Subscriber*”).

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1. Defined Terms. Capitalized terms used in this Agreement shall have the meanings ascribed to them in Part 1 of this Agreement (Defined Terms), which shall be deemed to be incorporated herein by reference as if stated herein in its entirety.

2. General Terms and Conditions. This Agreement shall be governed by the terms and conditions set forth in Part 2 of this Agreement (General Terms and Conditions), which shall be deemed to be incorporated herein by reference as if stated herein in its entirety.

3. Composition of Agreement. This Agreement shall include all of the Schedules identified in Part 1 and Part 2 of this Agreement, all of which shall be deemed to be incorporated herein by reference as if stated herein in their entirety. Such schedules shall include:

- Schedule 2.1 (Equipment Classes, Designated Transmission Owners and Nominated Quantities);
- Schedule 2.2 (Sparing Protocols);
- Schedule 2.7 (Insurance Requirements);
- Schedule 3.2 (Form of Fee Confirmation Notice);
- Schedule 4.1 (Form of QE Purchase Notice);
- Schedule 4.3 (Deployment Protocols);
- Schedule 4.5 (Standard Terms for Sales of Inventoried Spares);
- Schedule 5.1 (Sparing Service Fee);
- Schedule 6.4 (Reduction Liability);
- Schedule 12 (Non-Disclosure Agreement);
- Schedule 13.3 (Termination Liability); and
- Schedule 17 (Notice Information).

*[Signature Page Follows]*



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IN WITNESS WHEREOF, the Parties have caused this Agreement to be duly executed as of the Execution Date.

GRID ASSURANCE LLC

By:   
Michael M. Deggendorf  
Chief Executive Officer

AMERICAN ELECTRIC POWER SERVICE CORPORATION solely in its capacity as agent on behalf of each of

PUBLIC SERVICE COMPANY OF OKLAHOMA

OHIO POWER COMPANY

AEP TEXAS INC.

AEP OHIO TRANSMISSION COMPANY, INC.

AEP OKLAHOMA TRANSMISSION COMPANY, INC.

APPALACHIAN POWER COMPANY

AEP APPALACHIAN TRANSMISSION COMPANY, INC.

INDIANA MICHIGAN POWER COMPANY

AEP INDIANA MICHIGAN TRANSMISSION COMPANY, INC.

KINGSPORT POWER COMPANY


KENTUCKY POWER COMPANY

AEP KENTUCKY TRANSMISSION COMPANY, INC.

SOUTHWESTERN ELECTRIC POWER COMPANY

WHEELING POWER COMPANY

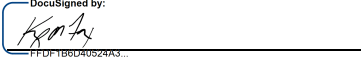
AEP WEST VIRGINIA TRANSMISSION COMPANY, INC.

By:   
Mark C McCullough  
EVP Transmission

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*Grid Assurance LLC*

ELECTRIC TRANSMISSION TEXAS, LLC

By:    
Kip M. Fox  
President

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***CONFIDENTIAL AND PROPRIETARY***  
*Grid Assurance LLC*

**GRID ASSURANCE LLC**  
**SUBSCRIPTION AGREEMENT**  
**PART 1**

**DEFINED TERMS**

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## **GRID ASSURANCE LLC SUBSCRIPTION AGREEMENT**

### **DEFINED TERMS**

The following capitalized terms, when used in the Subscription Agreement, shall have the meanings set forth below.

**Acceptance Date:** The date as of which Grid Assurance issues an Acceptance Notice to Subscriber.

**Acceptance Notice:** A written notice delivered by Grid Assurance to Subscriber stating that Grid Assurance is in receipt of a Regulatory Confirmation Notice and a valid Fee Confirmation Notice from Subscriber and has determined, in its reasonable judgment, that it has sufficient Regulatory Confirmation Notices and valid Fee Confirmation Notices from other Subscriber Group Members to enable Grid Assurance to provide Sparing Service to Subscriber for every Equipment Class in which Subscriber is participating, as each such Equipment Class is designated on Schedule 2.1.

**Affiliate:** With respect to any Person, another Person that directly or indirectly controls, is under common control with, or is controlled by, such Person or any successor thereto; *provided, however*, that for purposes of this definition, control of a Person means the power, direct or indirect, to vote fifty percent (50%) or more of the securities having ordinary voting power for the election of the governing body of such Person or direct or cause the direction of the management and policies of such Person, whether by contract or otherwise.

**Agreement:** The Subscription Agreement between Grid Assurance and Subscriber, including:

- The Cover Page;
- Part 1 (Defined Terms);
- Part 2 (General Terms and Conditions);
- Schedule 2.1 (Equipment Classes, Designated Transmission Owners and Nominated Quantities);
- Schedule 2.2 (Sparing Protocols);
- Schedule 2.7 (Insurance Requirements);
- Schedule 3.2 (Form of Fee Confirmation Notice);
- Schedule 4.1 (Form of QE Purchase Notice);
- Schedule 4.3 (Deployment Protocols);
- Schedule 4.5 (Standard Terms for Sales of Inventoried Spares);
- Schedule 5.1 (Sparing Service Fee);
- Schedule 6.4 (Reduction Liability);
- Schedule 12 (Non-Disclosure Agreement);

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- Schedule 13.3 (Termination Liability); and
- Schedule 17 (Notice Information).

**Auditor:** An accounting firm selected by Grid Assurance and approved by the Subscriber Advisory Committee in accordance with Section 9.1.2(a) of Part 2.

**Billing Period:** With respect to each Equipment Class, each calendar month commencing as of the Fee Commencement Date for that Equipment Class and continuing through the term of the Agreement; *provided, however*, that the initial Billing Periods and the final Billing Periods may be partial calendar months.

**Board:** The Board of Managers of Grid Assurance.

**Board Representative:** As of any point in time, an individual assigned by the Board to serve as a liaison to the Subscriber Advisory Committee or an Equipment Committee.

**Business Day:** Any day other than a Saturday, Sunday or federal holiday.

**Claim:** Any judgment, claim, action, cause of action, demand, lawsuit, proceeding, grievance, governmental investigation or audit, loss, assessment, fine, penalty, administrative order, arbitral award, obligation, cost (including attorneys' fees), expense, lien, liability or damage.

**Conditional Period:** The period commencing as of the Execution Date and continuing: (a) until the first date as of which Subscriber shall have issued a Fee Confirmation Notice and a Regulatory Confirmation Notice; and (b) during any period thereafter for which Subscriber does not have a valid Fee Confirmation Notice outstanding; *provided, however*, that the Conditional Period shall not extend beyond the Acceptance Date.

**Deployment Protocols:** The rules and procedures governing the priority and manner in which Grid Assurance will sell Inventoried Spares to Transmission Group Members and other Persons, as such rules and procedures are set forth on Schedule 4.3.

**Designated Transmission Owner:** Each of: (a) Subscriber, if it is (i) identified on Schedule 2.1 as a Designated Transmission Owner and (ii) the direct owner or lessee of an electric transmission system; and (b) any Affiliate of Subscriber that is (x) identified on Schedule 2.1 as a Designated Transmission Owner and (y) the direct owner or lessee of an electric transmission system.

**Discretionary Sale:** Any sale of any Inventoried Spare(s) by Grid Assurance other than a sale that is: (a) made to a Transmission Group Member; (b) due to damage or destruction caused by a Qualifying Event affecting the electric transmission system of that Transmission Group Member; (c) from an Equipment Class in which such Transmission Group Member is participating; and (d) in a quantity, for each such Equipment Class, no greater than the Nominated Quantity of such Transmission Group Member in that Equipment Class.

**Drop Dead Date:** The date which is eighteen (18) months after the Execution Date, as such Drop Dead Date may be extended by agreement of the Parties.

**Equipment Class:** A designation of a certain type of Inventoried Spare based on its function (*e.g.*, transformer, circuit breaker, bushing, etc.), voltage and/or other operational criteria.

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**Equipment Committee:** With respect to each Equipment Class, a permanent committee comprised of Subscriber Representatives representing the Subscriber Group Members participating in that Equipment Class, as such committees are described in Section 9.2 of Part 2.

**Equipment Manufacturer:** With respect to any Inventoried Spare, the original equipment manufacturer of such Inventoried Spare or its successor.

**Event of Default:** Any of the following events or circumstances affecting a Party:

- (a) a proceeding is instituted against such Party seeking to adjudicate such Party as bankrupt or insolvent and such proceeding is not dismissed within sixty (60) days of filing; such Party makes a general assignment for the benefit of its creditors; a receiver is appointed on account of the insolvency of such Party; such Party files a petition seeking to take advantage of any applicable law relating to bankruptcy, insolvency, reorganization, winding up or composition or readjustment of debts; or such Party is unable to pay its debts when due or as they mature;
- (b) Subscriber fails to satisfy the credit requirements set forth in Article 10 of Part 2;
- (c) a Party fails to pay any amount due and owing, which failure continues for thirty (30) days after notice thereof;
- (d) a Party fails to perform any other material obligation under the Agreement, which failure continues for thirty (30) days after notice thereof or, if such failure cannot reasonably be cured within such thirty (30) day period, such longer period of time as may be reasonably necessary to cure the failure so long as such Party diligently undertakes and proceeds on an uninterrupted basis to cure the failure, which, in any event, shall not be longer than ninety (90) days; and
- (e) any representation or warranty made by a Party is or was materially inaccurate as of the date made, which inaccuracy continues for thirty (30) days after notice thereof or, if such inaccuracy is curable but cannot reasonably be cured within such thirty (30) day period, such longer period of time as may be reasonably necessary to cure the inaccuracy so long as such Party diligently undertakes and proceeds on an uninterrupted basis to cure the inaccuracy, which in any event, shall not be longer than ninety (90) days.

**Execution Date:** The date of the Agreement, as specified on the Cover Page of the Agreement.

**Fee Commencement Date:** With respect to each Equipment Class, the first date as of which Grid Assurance has received, and is capable of delivering, any Inventoried Spare in that Equipment Class.

**Fee Confirmation Notice:** A notice in the form of Schedule 3.2 stating that, as of the date of such notice, the estimated annual Sparing Service Fee set forth in a valid Fee Estimate Certification applicable to every Equipment Class in which Subscriber's Designated Transmission Owner(s) is/are participating, is acceptable to Subscriber.

**Fee Estimate Certification:** A good faith, non-binding estimate (which may be subject to reasonable assumptions set forth therein) of the Sparing Service Fee that will be payable by Subscriber for one (1) year of Sparing Service for every Equipment Class in which Subscriber's Designated Transmission Owner(s) is/are participating once the Target Inventory Level for each such Equipment Class has been achieved.

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**Force Majeure:** Any event or circumstance affecting a Party or one or more of its contractors of any tier that: (a) renders it impracticable for such Party to comply with its obligations under the Agreement; (b) is beyond the reasonable control of such Party or contractor(s), as applicable; and (c) does not result from the fault or negligence of such Party or contractor(s), as applicable; *provided, however*, that Force Majeure shall not include: (i) economic difficulties; (ii) changes in market conditions; or (iii) delay in the delivery of any machinery, equipment or materials except to the extent caused by an event that would otherwise constitute a Force Majeure.

**GA Warehouse:** A warehouse or other storage facility owned or leased by Grid Assurance at which Inventoried Spares are stored and maintained.

**GAAP:** As of any date, generally accepted accounting principles for the United States, as accepted by the Financial Accounting Standards Board or its successor, applied on a consistent basis.

**Good Utility Practice:** The practices, methods and acts engaged in, or approved by, a significant portion of transmission owners operating in the United States and Canada during the relevant time period, or any other practices, methods and acts that, in the exercise of reasonable judgment in light of the facts known at the time a decision is made, would be reasonably expected to accomplish the desired result at a reasonable cost, consistent with good business practices and reasonable consideration of reliability, safety and expedition; *provided, however*, that Good Utility Practice is not intended to be limited to the optimum practices, methods or acts to the exclusion of all others, but rather is intended to include generally accepted practices, methods and acts generally accepted in the region in which a transmission owner operates.

**Governmental Authority:** Any federal or state department, commission, board, bureau, agency, authority or other body having regulatory or oversight jurisdiction or authority over a Party or any Designated Transmission Owner.

**Grid Assurance:** Grid Assurance LLC, a Delaware limited liability company.

**Indemnified Persons:** With respect to a Person, such Person, its Affiliates (excluding any Affiliate that is also an Affiliate of the Indemnifying Party) and their respective employees, agents, directors, members, shareholders and officers.

**Indemnifying Party:** The Party obligated to indemnify the other Party's Indemnified Persons pursuant to the terms of the Agreement.

**Inventoried Spare:** Any transmission-related equipment procured and owned by Grid Assurance for a designated Equipment Class and held for re-sale.

**Late Payment Rate:** An annual rate of interest equal to the lesser of: (a) the "prime rate" as published in *The Wall Street Journal* under the caption "Money Rates" in effect on the date a payment hereunder is due plus two percent (2%); and (b) the maximum rate of interest permitted by applicable law.

**Lender:** A Person that issues debt, makes loans or otherwise provides credit, credit support or other financing to a Party.

**Letter of Credit Amount:** An amount equal to the Sparing Service Fee payable by Subscriber for twenty-four (24) complete Billing Periods immediately following the date of determination of the Letter of Credit Amount; *provided, however*, that in determining such amount, Grid Assurance shall utilize the assumptions contained in the most recent five (5) year budget forecast provided to Subscriber Group Members pursuant to Section 8.1(b)

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of Part 2 (except that costs and revenues associated with any projected sales of Inventoried Spares shall be disregarded).

**Moody's:** Moody's Investor Service, Inc. and any successor thereto.

**NDA:** The Non-Disclosure Agreement between Subscriber (or an Affiliate thereof) and Grid Assurance, which is attached to the Agreement as Schedule 12.

**Nominated Quantity:** With respect to each Equipment Class in which any of Subscriber's Designated Transmission Owners is participating, the number of Inventoried Spares designated for that Equipment Class on Schedule 2.1.

**Operational Testing:** The electrical, mechanical and other specialized testing required by Good Utility Practice to validate the integrity and operational functionality of an Inventoried Spare.

**Original Cost:** With respect to an Inventoried Spare, the total cost incurred by Grid Assurance to purchase or acquire that Inventoried Spare and have it delivered to a GA Warehouse, including all transportation and delivery charges, taxes, duties (including custom duties), assessments, fees (including import and export fees) and other charges.

**Party:** Each of Grid Assurance and Subscriber.

**Person:** Any individual, partnership, joint venture, corporation, association, business, trust, unincorporated organization, limited liability company, Governmental Authority or other legal entity.

**QE Purchase Notice:** A notice from a Designated Transmission Owner to Grid Assurance, in the form of Schedule 4.1: (a) certifying that such Designated Transmission Owner has suffered a Qualifying Event; (b) identifying the damage to such Designated Transmission Owner's electric transmission equipment resulting from that Qualifying Event; and (c) specifying the type(s) and quantity of Inventoried Spare(s) that such Designated Transmission Owner proposes to purchase from Equipment Classes in which it is participating (up to its Nominated Quantity in each such Equipment Class).

**Qualifying Event:** Any damage, destruction or other material impairment of the safe operation of any equipment comprising the electric transmission system of a Transmission Group Member, which damage, destruction or impairment is caused by, or the result of: (a) an act of war, terrorism, rebellion, sabotage or a public enemy, or any other physical attack (whether or not such physical attack is conducted in connection with an act of war, terrorism or a public enemy); (b) a cyber-attack, whether or not in connection with an act of war, terrorism or a public enemy; (c) an electromagnetic pulse or intentional electromagnetic interference; or (d) an act of God, a catastrophic event (natural or otherwise) or a severe weather condition, including a solar storm, earthquake, volcanic eruption, hurricane, tornado, derecho, windstorm, wildfire or ice storm.

**Reduction Liability:** With respect to any amendment of Schedule 2.1 to reduce any Nominated Quantity for any Equipment Class in which a Designated Transmission Owner is participating, the amount calculated as the "Reduction Liability" in accordance with Schedule 6.4.

**Reduction Notice:** A notice delivered by Subscriber to Grid Assurance stating that Subscriber desires to reduce the Nominated Quantity in any Equipment Class in which any of its Designated Transmission Owners is then participating, which notice shall specifically identify any such reduced Nominated Quantity(ies).



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**Regulatory Confirmation Notice:** A notice issued by Subscriber to Grid Assurance stating that: (a) all Required Regulatory Approvals have been obtained; or (b) there are no Required Regulatory Approvals.

**Replacement Cost:** With respect to an Inventoried Spare, the total costs and expenses that Grid Assurance incurs or would incur to purchase or acquire new equipment to replace such Inventoried Spare and have it delivered to a GA Warehouse in accordance with Grid Assurance's policies, procedures and procurement practices, including all transportation and delivery charges, taxes, duties (including custom duties), assessments, fees (including import and export fees) and other charges, as such costs and expense are determined by Grid Assurance in its reasonable judgment.

**Required Regulatory Approval:** Any permit, license, authorization, consent, decree, waiver, approval, exemption from, filing with or notice to, any Governmental Authority required by applicable law to be obtained by, or issued to, Subscriber or any Designated Transmission Owner in order for: (a) Subscriber to perform its obligations under the Agreement; or (b) any Designated Transmission Owner to be designated as such in the Agreement, in each case as determined by Subscriber or such Designated Transmission Owner in its reasonable judgment.

**S&P:** Standard & Poor's Rating Services, a Standard & Poor's Financial Services LLC business, and any successor thereto.

**Sparing Protocols:** The rules and procedures governing the manner in which Grid Assurance will procure, maintain and manage Inventoried Spares, including the manner in which it will determine Target Inventory Levels for each Equipment Class and procure Inventoried Spares that are suitable to replace, though not necessarily identical to, the equipment comprising the electric transmission systems of Transmission Group Members participating in each such Equipment Class, as such rules and procedures are set forth on Schedule 2.2.

**Sparing Service:** The services to be performed by Grid Assurance pursuant to the Agreement, as described in Article 1 of Part 2.

**Sparing Service Fee:** The fee payable by Subscriber for Sparing Service, as determined in accordance with Schedule 5.1 of Part 2.

**Subscriber:** The Person identified as Subscriber on the Cover Page of the Agreement; *provided, however*, that if the Agreement is executed by a Person in its capacity as an agent, the Subscriber Party shall be the principal of that Person.

**Subscriber Advisory Committee:** A permanent committee comprised of Subscriber Representatives, as such committee is described in Section 9.1 of Part 2.

**Subscriber Group Members:** As of any point in time, all Persons that have executed Subscription Agreements with Grid Assurance then in effect, including Subscriber.

**Subscriber Representative:** As of any point in time, an individual selected by Subscriber Group Members to serve on the Subscriber Advisory Committee or an Equipment Committee.

**Subscription Agreements:** As of any point in time, all of the Subscription Agreements then in effect between Grid Assurance and Subscriber Group Members, including this Agreement.

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**Target Inventory Level:** With respect to each Equipment Class, the quantity of Inventoried Spares that Grid Assurance will seek to maintain in inventory based on the Sparing Protocols, as such quantity may be determined and/or revised from time to time in accordance with such Sparing Protocols.

**Termination Liability:** The amount calculated as the “Termination Liability” in accordance with Schedule 13.3.

**Termination Notice:** A notice delivered by Subscriber to Grid Assurance stating that Subscriber is terminating the Agreement pursuant to, and in accordance with, Section 13.3 of Part 2.

**Third Party:** Any Person other than a Party or an Affiliate of a Party.

**Third Party Transmission Purchaser:** A Third Party that directly or indirectly acquires any material portion of the electric transmission system(s) of any Designated Transmission Owner(s).

**Transmission Group Member:** As of any point in time, any Designated Transmission Owner of any Subscriber Group Member.

**Transmission Owner Allocated Share:** With respect to each Equipment Class in which any Designated Transmission Owner is participating, as each such Equipment Class is designated on Schedule 2.1, and as of the time a calculation of Transmission Owner Allocated Shares is made, a fraction (expressed as a percentage rounded to the nearest tenth of a percent) derived by dividing the Nominated Quantity of the Designated Transmission Owner(s) for that Equipment Class by the aggregate of the Nominated Quantities of all Transmission Group Members participating in that Equipment Class; *provided, however*, that the total Transmission Owner Allocated Shares of all Transmission Group Members participating in each Equipment Class shall, at all times, equal one hundred percent (100.0%).

[END OF PART 1]

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*Grid Assurance LLC*

**GRID ASSURANCE LLC**  
**SUBSCRIPTION AGREEMENT**  
**PART 2**

**GENERAL TERMS AND CONDITIONS**

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*Grid Assurance LLC*

**GRID ASSURANCE LLC  
SUBSCRIPTION AGREEMENT**

**GENERAL TERMS AND CONDITIONS**

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**GRID ASSURANCE LLC  
SUBSCRIPTION AGREEMENT**

**GENERAL TERMS AND CONDITIONS**

**ARTICLE 1  
SCOPE OF SPARING SERVICE**

1.1 General.

In consideration of Subscriber's payment of the Sparing Service Fee and performance of its obligations pursuant to the Agreement, Grid Assurance shall procure, store, maintain and sell Inventoried Spares in accordance with the terms of the Agreement.

1.2 Inspection and Testing of Inventoried Spares.

To the extent required by Good Utility Practice, Grid Assurance shall: (a) directly or through a qualified representative, witness the Operational Testing and loading of Inventoried Spares prior to the shipment thereof from Equipment Manufacturers to Grid Assurance; and (b) inspect, confirm receipt of all parts, perform Operational Testing and, to the extent necessary and appropriate, assemble and disassemble Inventoried Spares upon delivery thereof to a GA Warehouse.

1.3 Maintenance of Inventoried Spares.

Grid Assurance shall store and maintain Inventoried Spares in accordance with Good Utility Practice and any additional requirements necessary to keep Equipment Manufacturers' warranties in effect during applicable warranty periods.

1.4 Inventory Management.

Grid Assurance shall exercise commercially reasonable efforts to manage its stockpile of Inventoried Spares in a manner intended to mitigate the risk of obsolescence of such Inventoried Spares, including by: (a) contracting with Equipment Manufacturers to perform testing and maintenance on Inventoried Spares; and (b) entering into Discretionary Sales; *provided, however*, that Grid Assurance shall not be responsible or liable in any way in the event Inventoried Spares become technologically or physically obsolete or otherwise decline in value.

1.5 Logistics Support.

1.5.1. Grid Assurance shall develop, periodically update in accordance with Good Utility Practice and provide to each Designated Transmission Owner information pertaining to the logistics of the long-haul portion of the transportation of Inventoried Spares from GA Warehouses to transportation hubs located within or near the electric transmission system of that Designated Transmission Owner; *provided, however*, that each such Designated Transmission Owner may designate no more than five (5) such transportation hubs. Such information shall include potential delivery routes, available modes of transportation and state and local permitting requirements applicable to the long-haul portion of such transportation.

1.5.2. Grid Assurance shall exercise commercially reasonable efforts to negotiate standardized terms and conditions of service that will be available to Transmission Group Members, at their option, for execution between such Transmission Group Members and transportation companies and/or



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logistics service providers capable of delivering or assisting in the delivery of Inventoried Spares to such Transmission Group Members.

1.6 Quality of Sparing Service.

Grid Assurance shall perform its obligations pursuant to the Agreement in accordance with the terms and conditions hereof and, subject to any express limitations and conditions set forth herein, Good Utility Practice. **THERE ARE NO IMPLIED WARRANTIES OF ANY KIND IN CONNECTION WITH ANY PERFORMANCE BY GRID ASSURANCE HEREUNDER AND ALL STATUTORY WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY, SUITABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USAGE ARE HEREBY DISCLAIMED AND WAIVED.** No oral or written representation, warranty, course of dealing or trade usage not contained herein shall be binding on either Party.

**ARTICLE 2**  
**PERFORMANCE BY GRID ASSURANCE**

2.1 Designation of Designated Transmission Owners and Nominated Quantities.

Schedule 2.1 identifies: (a) each Designated Transmission Owner; (b) each Equipment Class in which any Designated Transmission Owner is participating; (c) each Designated Transmission Owner participating in each such Equipment Class; and (d) the Nominated Quantity of the Designated Transmission Owner(s) for each such Equipment Class.

2.2 Sparing Protocols.

- 2.2.1. Grid Assurance shall establish Target Inventory Levels for each Equipment Class.
- 2.2.2. Grid Assurance shall exercise commercially reasonable efforts to acquire and maintain quantities and types of Inventoried Spares in accordance with the Sparing Protocols; *provided, however*, that this Section 2.2.2 shall not restrict or prevent Grid Assurance from entering into sales of Inventoried Spares in accordance with the terms hereof that will temporarily reduce stockpiles of Inventoried Spares below applicable Target Inventory Levels.
- 2.2.3. Subject to Section 9.1.2(b) of this Part 2, Grid Assurance may amend the Sparing Protocols from time to time. Any amended Sparing Protocols shall become effective, and become part of the Agreement (in substitution of Schedule 2.2 previously attached hereto) upon delivery thereof by Grid Assurance to Subscriber with a written certification by Grid Assurance that such amended Sparing Protocols have been approved by the Subscriber Advisory Committee.
- 2.2.4. Grid Assurance shall have exclusive authority to determine: (a) the types of equipment to be procured as Inventoried Spares for each Equipment Class; (b) the Equipment Manufacturers from which Inventoried Spares will be procured; and (c) subject to Section 9.2.2(a) of this Part 2, the terms, conditions and pricing upon which Inventoried Spares are procured. Grid Assurance shall procure Inventoried Spares through competitive processes whenever reasonably practicable, as determined by Grid Assurance based on Good Utility Practice.

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2.3 Warehouses.

- 2.3.1. Grid Assurance shall own or lease: (a) one (1) or more GA Warehouses in the continental United States to stockpile and maintain Inventoried Spares; and (b) all equipment and vehicles reasonably necessary to unload, assemble, disassemble, move, maintain, conduct Operational Testing and re-load Inventoried Spares at the GA Warehouses. Grid Assurance shall determine the number and location of GA Warehouses based on its reasonable judgment, which will include consideration of factors such as access to suitable means of transportation, security, cost and proximity to the electric transmission systems of Transmission Group Members.
- 2.3.2. Grid Assurance shall be responsible for developing and implementing policies and procedures to maintain physical and cyber security at the GA Warehouses in accordance with Good Utility Practice.
- 2.3.3. At Subscriber's request upon reasonable advance notice, Grid Assurance shall allow Subscriber and its representatives (including Designated Transmission Owners, Governmental Authorities and their respective personnel) to tour and inspect the GA Warehouses, subject to their compliance with Grid Assurance's standard health, safety, security and confidentiality requirements.

2.4 Personnel.

Grid Assurance shall provide all personnel necessary and appropriate, in the reasonable judgment of Grid Assurance, to perform Sparring Service in accordance with the terms and conditions of the Agreement.

2.5 Equipment Manufacturer Terms and Conditions.

In connection with its acquisition of Inventoried Spares, Grid Assurance shall exercise commercially reasonable efforts to obtain from Equipment Manufacturers: (a) warranties, indemnities and other terms and conditions customarily agreed to by Equipment Manufacturers for the benefit of equipment purchasers; (b) warranties with warranty periods that remain in effect for a reasonable period after the re-sale of the Inventoried Spares by Grid Assurance; and (c) the right to assign Equipment Manufacturers' warranties to purchasers of Inventoried Spares.

2.6 Use of Subcontractors.

Grid Assurance may utilize subcontractors (including members of Grid Assurance and their Affiliates) to perform its obligations pursuant to the Agreement; *provided, however*, that the use of any such subcontractors shall not relieve Grid Assurance of any responsibility hereunder.

2.7 Insurance.

Grid Assurance shall maintain in effect at all times after the initial Acceptance Date, insurance coverage as described on Schedule 2.7, as such coverage may be reasonably modified by Grid Assurance consistent with Good Utility Practice.

2.8 Equipment Classes.

Grid Assurance shall have the exclusive right to establish Equipment Classes from time to time in its reasonable judgment, which judgment will include consideration of the needs of Transmission Group Members.

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### **ARTICLE 3**

### **CONDITIONS PRECEDENT**

#### **3.1 Conditions to Subscriber Performance.**

The obligation of Subscriber to accept and pay for Sparing Service pursuant to the Agreement is subject to satisfaction (or waiver by Subscriber in its sole discretion) of the following conditions:

- (a) Subscriber shall have issued a Fee Confirmation Notice that remains valid as of the Acceptance Date; and
- (b) Subscriber shall have issued a Regulatory Confirmation Notice.

#### **3.2 Fee Estimate Certifications.**

- 3.2.1. Subscriber hereby acknowledges receipt of a Fee Estimate Certification that covers every Equipment Class in which each Designated Transmission Owner is participating as of the Execution Date.
- 3.2.2. At any time after the Execution Date and prior to the Acceptance Date, Grid Assurance may deliver to Subscriber one or more revised Fee Estimate Certifications; *provided, however*, that, upon delivery of any such revised Fee Estimate Certification, any prior Fee Estimate Certification delivered to Subscriber shall automatically be rendered invalid and be deemed to be superseded by the revised Fee Estimate Certification. If, at any time prior to the Acceptance Date, Grid Assurance determines that the estimated Sparing Service Fee payable by Subscriber has increased by more than ten percent (10%) above the estimated Sparing Service Fee set forth in a valid Fee Estimate Certification, Grid Assurance shall promptly notify Subscriber and shall thereafter prepare and deliver to Subscriber a revised Fee Estimate Certification.
- 3.2.3. If Subscriber determines that the estimated annual Sparing Service Fee set forth in a valid Fee Estimate Certification is acceptable, Subscriber shall execute and deliver to Grid Assurance a Fee Confirmation Notice, which notice shall be irrevocable by Subscriber; *provided, however*, that a Fee Confirmation Notice shall automatically be rendered invalid if Grid Assurance subsequently delivers to Subscriber prior to the Acceptance Date a revised Fee Estimate Certification with a higher estimated Sparing Service Fee.
- 3.2.4. At Grid Assurance's request, Subscriber shall notify Grid Assurance whether a then-valid Fee Estimate Certification is acceptable.

#### **3.3 Regulatory Approvals.**

- 3.3.1. No later than thirty (30) days after the Execution Date, Subscriber shall provide Grid Assurance with notice: (a) of all Required Regulatory Approvals; or (b) that there are no Required Regulatory Approvals. Subscriber shall keep Grid Assurance apprised of any modifications to the information contained in such notice of Required Regulatory Approvals; *provided, however*, that Subscriber may not modify the designated Required Regulatory Approvals after it issues a Regulatory Confirmation Notice.
- 3.3.2. Subscriber shall exercise, and shall cause its Designated Transmission Owners to exercise, commercially reasonable efforts to obtain all Required Regulatory Approvals; *provided*,

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*however*, that neither Subscriber nor any Designated Transmission Owner shall be obligated to continue such efforts if it determines, in its reasonable judgment, that a Required Regulatory Approval will not be obtained or, if obtained, would be subject to conditions that such Subscriber or Designated Transmission Owner deems unacceptable. At Subscriber's request, Grid Assurance shall support and cooperate with Subscriber and/or any of its Designated Transmission Owner(s) in connection with its/their efforts to obtain Required Regulatory Approvals.

- 3.3.3. At Grid Assurance's request, Subscriber shall notify Grid Assurance of the status of Subscriber's and its Designated Transmission Owners' efforts to obtain Required Regulatory Approvals, including the anticipated timing of receipt of such approvals.
- 3.3.4. Subscriber shall promptly notify Grid Assurance if Subscriber or any of its Designated Transmission Owners determines that: (a) a Required Regulatory Approval will not be obtained; or (b) a Required Regulatory Approval, if obtained, would be subject to conditions that Subscriber or any of its Designated Transmission Owners deems unacceptable.
- 3.3.5. If Subscriber and all of its Designated Transmission Owners obtain all Required Regulatory Approvals (or determine that there are no Required Regulatory Approvals), Subscriber shall execute and deliver to Grid Assurance a Regulatory Confirmation Notice, which notice shall be irrevocable by Subscriber.

#### 3.4 Acceptance Notice.

If Grid Assurance: (a) is in receipt of a Regulatory Confirmation Notice and a valid Fee Confirmation Notice from Subscriber; and (b) has determined, in its reasonable judgment, that it has received sufficient Regulatory Confirmation Notices and valid Fee Confirmation Notices from other Subscriber Group Members to enable Grid Assurance to provide Sparing Service to Subscriber for every Equipment Class in which its Designated Transmission Owner(s) is/are participating, Grid Assurance shall promptly execute and deliver to Subscriber an Acceptance Notice. Immediately upon issuance of an Acceptance Notice, all conditions precedent to the Parties' obligations to perform their respective obligations hereunder shall be deemed to be fully satisfied.

#### 3.5 Termination for Failure of Conditions.

- 3.5.1. At any time prior to its issuance of a Regulatory Confirmation Notice, Subscriber may terminate the Agreement without any liability whatsoever to Grid Assurance if Subscriber determines that a Required Regulatory Approval will not be obtained or, if obtained, would be subject to conditions that Subscriber or any of its Designated Transmission Owners deems unacceptable.
- 3.5.2. If Subscriber determines that the estimated Sparing Service Fee set forth in a valid Fee Estimate Certification, is not acceptable, Subscriber may terminate the Agreement without liability whatsoever to Grid Assurance; *provided, however*, that Subscriber may not terminate the Agreement pursuant to this Section 3.5.2 during any period in which a Fee Confirmation Notice from Subscriber is valid and outstanding.
- 3.5.3. The Agreement shall automatically terminate if Grid Assurance fails to issue an Acceptance Notice on or before the Drop Dead Date.

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## **ARTICLE 4**

### **SALES OF INVENTORIED SPARES**

#### **4.1 Sales Based on Qualifying Events.**

Upon the occurrence of a Qualifying Event affecting the electric transmission system(s) of one (1) or more Designated Transmission Owners, such Designated Transmission Owner(s) shall have the right to purchase Inventoried Spares from any Equipment Class(es) in which such Designated Transmission Owner(s) is/are participating at that time at a price equal to the Original Cost of such Inventoried Spare(s); *provided, however*, that for any Qualifying Event, the maximum number of Inventoried Spares that such Designated Transmission Owners shall have the right, in the aggregate, to purchase pursuant to this Section 4.1 from any Equipment Class in which it/they are participating shall be equal to the lesser of: (a) the Nominated Quantity of the Designated Transmission Owner(s) for that Equipment Class; (b) the number of units of comparable equipment on the electric transmission system(s) of such Designated Transmission Owner(s) that was damaged, destroyed or impaired by that Qualifying Event; (c) the number of Inventoried Spares in that Equipment Class at that time; and (d) the number of Inventoried Spares available for sale to such Designated Transmission Owner(s) based on the Deployment Protocols. In order to exercise its right to purchase any Inventoried Spares pursuant to this Section 4.1, a Designated Transmission Owner must deliver a QE Purchase Notice to Grid Assurance.

#### **4.2 Discretionary Sales.**

- 4.2.1. Grid Assurance shall have the right to sell Inventoried Spares pursuant to Discretionary Sales when and as deemed appropriate by Grid Assurance in its reasonable judgment; *provided, however*, that all Discretionary Sales shall be subject to the conditions set forth in the Agreement, the Sparing Protocols and the Deployment Protocols. Discretionary Sales from any Equipment Class may be conducted: (a) on Grid Assurance's own initiative (including for the purpose of mitigating the risk that Inventoried Spares could become technologically or physically obsolete); or (b) at the request of the Equipment Committee associated with that Equipment Class, a Subscriber Group Member, a Transmission Group Member or any other Person.
- 4.2.2. If Grid Assurance agrees to enter into a Discretionary Sale upon the request of a Subscriber Group Member, a Transmission Group Member or any other Person (including a Discretionary Sale pursuant to Section 4.2.3, Section 4.2.4 or Section 4.2.5 of this Part 2), the purchase price for any Inventoried Spare(s) sold in that Discretionary Sale shall be the greater of the Original Cost or the Replacement Cost of such Inventoried Spare(s); *provided, however*, that nothing in this Section 4.2.2 shall limit Grid Assurance's authority to negotiate the purchase price for Inventoried Spares sold pursuant to Discretionary Sales that Grid Assurance initiates.
- 4.2.3. Without limiting the conditions set forth in Section 4.2.1 and Section 4.2.2 of this Part 2, if Grid Assurance agrees to enter into a Discretionary Sale with any Transmission Group Member(s) that, based on a Qualifying Event, request(s) to purchase more than its/their Nominated Quantity for any Equipment Class in which it/they is/are participating, such sale shall be subject to the agreement by the Subscriber Group Member affiliated with such Transmission Group Member(s):
  - (a) subject to any Equipment Committee approval that may be required pursuant to Section 9.2.2(b) of this Part 2, to amend Schedule 2.1 to increase the Nominated Quantity in each

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- such Equipment Class to a quantity no less than the quantity of Inventoried Spares that such Transmission Group Member(s) is/are purchasing from that Equipment Class; and
- (b) if Schedule 2.1 is amended pursuant to Section 4.2.3(a) of this Part 2, to pay Grid Assurance (in addition to the purchase price of the Inventoried Spare(s)), for each Equipment Class for which the Nominated Quantity was increased pursuant to Section 4.2.3(a) of this Part 2, an amount equal to the lesser of: (i) the product of (x) the monthly Sparing Service Fee applicable to the minimum increase in the Nominated Quantity that Subscriber Group Member was required to specify pursuant to Section 4.2.3(a) of this Part 2, multiplied by (y) the number of months since the Fee Commencement Date for that Equipment Class; or (ii) two hundred percent (200%) of the Replacement Cost of the Inventoried Spare(s) purchased by the Subscriber Group Member's affiliated Transmission Group Member(s) from that Equipment Class in that Discretionary Sale.
- 4.2.4. Without limiting the conditions set forth in Section 4.2.1 and Section 4.2.2 of this Part 2, if Grid Assurance agrees to enter into a Discretionary Sale with a Transmission Group Member that, based on a Qualifying Event, requests to purchase any Inventoried Spares from an Equipment Class in which that Transmission Group Member is not participating, such sale shall be subject to the agreement by that Transmission Group Member's affiliated Subscriber Group Member:
- (a) subject to any Equipment Committee approval that may be required pursuant to Section 9.2.2(c) of this Part 2, to amend Schedule 2.1 to (i) include each Equipment Class from which that Transmission Group Member is purchasing any such Inventoried Spares, and (ii) specify as its Nominated Quantity in each such Equipment Class a quantity no less than the quantity of Inventoried Spares that such Transmission Group Member is purchasing from that Equipment Class; and
- (b) if Schedule 2.1 is amended pursuant to Section 4.2.4(a) of this Part 2, to pay Grid Assurance (in addition to the purchase price of the Inventoried Spare(s)), for each Equipment Class added pursuant to Section 4.2.4(a) of this Part 2, an amount equal to the product of (i) the monthly Sparing Service Fee applicable to the minimum Nominated Quantity that Subscriber Group Member was required to specify for that Equipment Class pursuant to Section 4.2.4(a) of this Part 2, multiplied by (ii) the number of months since the Fee Commencement Date for that Equipment Class.
- 4.2.5. Without limiting the conditions set forth in Section 4.2.1 and Section 4.2.2 of this Part 2, if Grid Assurance agrees to enter into a Discretionary Sale with a Person other than a Transmission Group Member, which Person requests to purchase any Inventoried Spares based on a circumstance (or single set of related circumstances) that, if that Person were a Transmission Group Member, would constitute a Qualifying Event, such sale shall be subject to that Person's (or one of its Affiliates') agreement:
- (a) subject to any Equipment Committee approval that may be required pursuant to Section 9.2.2(c) of this Part 2, to (i) enter into a standard Subscription Agreement with Grid Assurance specifying, for each Equipment Class from which that Person is purchasing Inventoried Spares, a Nominated Quantity no less than the quantity of Inventoried Spares that such Person is purchasing from that Equipment Class, and (ii) waive the conditions set forth in Section 3.1 of this Part 2 of that Subscription Agreement; and

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- (b) to pay Grid Assurance (in addition to the purchase price of the Inventoried Spare(s) and regardless of whether that Person or any of its Affiliates enters into a Subscription Agreement), for each Equipment Class from which that Person is purchasing Inventoried Spares, an amount equal to the product of (i) the monthly Sparing Service Fee applicable to the minimum Nominated Quantity that Person (or one of its Affiliates) is required to specify for that Equipment Class pursuant to Section 4.2.5(a) of this Part 2, multiplied by (ii) the number of months since the Fee Commencement Date for that Equipment Class.

4.2.6. Without limiting the generality of Section 4.2.1 of this Part 2, promptly following the termination of a Subscription Agreement or the reduction of a Nominated Quantity by a Subscriber Group Member, Grid Assurance shall: (a) re-assess the Target Inventory Levels in all Equipment Classes directly impacted by such termination or reduction; and (b) if Grid Assurance determines, in its reasonable judgment, that there are surplus Inventoried Spares in any such Equipment Class, initiate Discretionary Sales to dispose of such surplus Inventoried Spares.

#### 4.3 Deployment Protocols.

- 4.3.1. Grid Assurance shall have the exclusive right to determine which Inventoried Spares will be sold from time to time; *provided, however*, that all sales of Inventoried Spares by Grid Assurance shall be made in accordance with the Deployment Protocols.
- 4.3.2. Subject to Section 9.1.2(c) of this Part 2, Grid Assurance may amend the Deployment Protocols from time to time; *provided, however*, that the Deployment Protocols shall at all times provide that sales of Inventoried Spares shall be made to Subscriber Group Members on a non-discriminatory basis.
- 4.3.3. Any amended Deployment Protocols shall become effective, and shall become part of the Agreement (in substitution of Schedule 4.3 previously attached hereto) upon delivery thereof by Grid Assurance to Subscriber with a written certification by an officer of Grid Assurance that such amended Deployment Protocols have been approved by the Subscriber Advisory Committee.

#### 4.4 Inspection and Testing Prior to Sale.

To the extent required by Good Utility Practice, Grid Assurance shall conduct Operational Testing of Inventoried Spares prior to the delivery thereof to Subscriber. Grid Assurance shall allow Subscriber and its representatives to witness, and shall reasonably cooperate with Subscriber to schedule, such Operational Testing; *provided, however*, that such Persons must agree to comply with Grid Assurance's standard health, safety, security and confidentiality requirements, which requirements shall be shared with Subscriber upon written request.

#### 4.5 Terms of Sale of Inventoried Spares.

All sales of Inventoried Spares to Transmission Group Members based on Qualifying Events affecting those Transmission Group Members shall be executed pursuant to Grid Assurance's standard form of agreement as then in effect; *provided, however*, that any such agreement shall at all times include terms and conditions consistent with Schedule 4.5. Subject to the express conditions set forth herein, Grid Assurance may, in its discretion, agree to terms and conditions other than those set forth on Schedule 4.5 for Discretionary Sales.

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## **ARTICLE 5 FEES; PAYMENT**

### **5.1 Sparing Service Fee.**

5.1.1. Subscriber shall pay Grid Assurance the Sparing Service Fee calculated in accordance with Schedule 5.1 for each Billing Period commencing as of the Acceptance Date; *provided, however*, that if, with respect to any Equipment Class in which any of Subscriber's Designated Transmission Owners is participating, the Fee Commencement Date has not occurred on or prior to the Acceptance Date, Subscriber's obligation to pay the Sparing Service Fee for that Equipment Class shall commence on the Fee Commencement Date for that Equipment Class.

5.1.2. Grid Assurance shall re-calculate the Transmission Owner Allocated Shares of all Transmission Group Members participating in an Equipment Class upon the execution or amendment of a Subscription Agreement with any Transmission Group Member(s) participating in that Equipment Class.

5.1.3. The Sparing Service Fee shall be payable monthly in arrears.

### **5.2 Monthly Invoices.**

Grid Assurance shall deliver invoices for the Sparing Service Fee applicable to each Billing Period no later than fifteen (15) days after the end of that Billing Period, which invoices shall include reasonable supporting documentation.

### **5.3 Payment.**

5.3.1. The Sparing Service Fee shall be due and payable thirty (30) days after receipt of an invoice therefor; *provided, however*, that Subscriber may withhold amounts disputed in good faith so long as it provides Grid Assurance with a reasonably detailed written statement of the basis of the dispute, including reasonable supporting documentation, no later than the date as of which the disputed payment is due.

5.3.2. All payments to a Party pursuant to the Agreement shall be made by automated clearing house (ACH) payment or wire transfer of immediately available funds to an account specified by that Party.

### **5.4 Late Payments.**

Any amounts owed pursuant to the Agreement and not paid when and as due (including amounts disputed in good faith and subsequently determined to be due and owing) shall bear interest from the date due until the date paid, calculated at the Late Payment Rate.

### **5.5 No Set-Off.**

A Party shall not be entitled to set-off any amount it owes to the other Party pursuant to the Agreement against any amount owed or claimed to be owed by such other Party.

## **ARTICLE 6 CHANGES**



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6.1 Changes During Conditional Period.

- 6.1.1. At any time during the Conditional Period, Subscriber shall have the right to amend the Agreement to: (a) modify the Designated Transmission Owners; (b) add or remove Equipment Classes; and/or (c) increase or decrease the Nominated Quantity(ies) in any Equipment Classes.
- 6.1.2. In order to amend the Agreement pursuant to Section 6.1.1, Subscriber shall deliver to Grid Assurance a notice setting forth: (a) the Designated Transmission Owners to be included in the amended Agreement; (b) the Equipment Class(es) in which each such Designated Transmission Owner will participate; and (c) the Nominated Quantity in each such Equipment Class.
- 6.1.3. Promptly upon receipt of a notice from Subscriber pursuant to Section 6.1.2, Grid Assurance shall prepare and deliver to Subscriber an amended Agreement reflecting the changes proposed by Subscriber, including a revised Schedule 2.1.

6.2 Changes as of Right Following Conditional Period.

- 6.2.1. At any time following the Conditional Period, Subscriber shall have the right to amend the Agreement to modify the Designated Transmission Owners; *provided, however*, that any amendment of the Agreement to add any Equipment Class(es) and/or to increase or decrease any Nominated Quantity(ies) in any Equipment Classes shall be subject to Section 6.3 and/or Section 6.4, as applicable.
- 6.2.2. In order to amend the Agreement pursuant to Section 6.2.1, Subscriber shall deliver to Grid Assurance a notice setting forth the Designated Transmission Owners to be included in the amended Agreement and the Equipment Class(es) in which each such Designated Transmission Owner will participate.
- 6.2.3. Promptly upon receipt of a notice from Subscriber pursuant to Section 6.2.2, Grid Assurance shall prepare and deliver to Subscriber an amended Agreement reflecting the changes proposed by Subscriber, including a revised Schedule 2.1.

6.3 Increase in Nominated Quantity; Participation in New Equipment Class.

- 6.3.1. At any time other than during the Conditional Period, an amendment of the Agreement to add one (1) or more Equipment Classes in which any Designated Transmission Owner will participate or to increase the Nominated Quantity(ies) in any Equipment Classes in which any Designated Transmission Owner will participate shall be subject to the mutual agreement of the Parties and, to the extent applicable, the approval of the Equipment Committee(s) associated with the affected Equipment Classes pursuant to Section 9.2.2(b) or Section 9.2.2(c) of this Part 2.
- 6.3.2. In order to amend the Agreement pursuant to Section 6.3.1, Subscriber shall deliver to Grid Assurance a notice setting forth: (a) the Designated Transmission Owners to be included in the amended Agreement; (b) the Equipment Class(es) in which each such Designated Transmission Owner will participate; and (c) the Nominated Quantity(ies) in such Equipment Class(es).
- 6.3.3. In the event the Parties agree to add one (1) or more Equipment Classes in which any Designated Transmission Owner will participate or to increase the Nominated Quantity(ies) in any Equipment Class(es) and, to the extent applicable, the Equipment Committee associated with any

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affected Equipment Class approves such change(s), Grid Assurance shall prepare and deliver to Subscriber an amended Agreement reflecting the changes proposed by Subscriber and, if applicable, agreed to by such Equipment Committee, including a revised Schedule 2.1.

6.4 Reduction of Nominated Quantities.

- 6.4.1. If, at any time other than during the Conditional Period, the Agreement is amended to reduce the Nominated Quantity(ies) in any Equipment Class(es) in which any Designated Transmission Owner is then participating, Subscriber shall, except to the extent provided otherwise in Section 16.4.1 of this Part 2, be liable to Grid Assurance for payment of the Reduction Liability calculated based on such reduction.
- 6.4.2. In order to amend the Agreement pursuant to Section 6.4.1, Subscriber shall deliver to Grid Assurance a Reduction Notice. No later than thirty (30) days after receipt of a Reduction Notice, Grid Assurance shall: (a) provide Subscriber with a statement of the Reduction Liability that would result from the reduction the Nominated Quantity(ies) as specified in that Reduction Notice (which statement shall include reasonable supporting documentation); and (b) prepare and provide to Subscriber an amended Agreement reflecting the reduced Nominated Quantity(ies) proposed by Subscriber in that Reduction Notice, including a revised Schedule 2.1.
- 6.4.3. Promptly upon receipt of a Reduction Notice from a Subscriber Group Member, Grid Assurance shall forward a copy of that Reduction Notice to all Subscriber Group Members with affiliated Transmission Group Members then participating in any Equipment Class(es) directly impacted by that Reduction Notice.
- 6.4.4. Subscriber shall pay Grid Assurance the Reduction Liability resulting from an amendment of the Agreement pursuant to this Section 6.4 no later than thirty (30) days after the effective date of such amendment.
- 6.4.5. If, at any time within five (5) years of an amendment to the Agreement to reduce the Nominated Quantity for any Equipment Class, Grid Assurance proposes to conduct a Discretionary Sale of an Inventoried Spare (other than pursuant to Section 4.2.3, Section 4.2.4 or Section 4.2.5 of this Part 2) from that Equipment Class: (a) Grid Assurance shall provide advance notice of such Discretionary Sale to Subscriber; and (b) if Subscriber or any of its Designated Transmission Owners wishes to participate in the Discretionary Sale process for that Inventoried Spare, Subscriber and such Designated Transmission Owners shall be entitled to apply as a credit toward the purchase price for that Inventoried Spare an amount that, in the aggregate, is equal to the quotient of (i) the Equipment Reduction Contribution (as described in Schedule 6.4) applicable to that Equipment Class and paid by Subscriber as part of its Reduction Liability divided by (ii) the number of Inventoried Spares in the applicable Equipment Class at the time of such amendment.

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## **ARTICLE 7 FORCE MAJEURE**

### **7.1 Excused Performance.**

A Party shall not be in breach of any obligations pursuant to the Agreement (other than the obligation to pay amounts due and owing) to the extent any delay in performance results from Force Majeure.

### **7.2 Obligations of Affected Party.**

A Party affected by Force Majeure shall use commercially reasonable efforts to: (a) proceed with its obligations pursuant to the Agreement to the extent it is not prevented from doing so by the Force Majeure; and (b) exercise commercially reasonable efforts to eliminate or mitigate the adverse effects of the Force Majeure as soon as reasonably practicable.

### **7.3 Notice Obligation.**

A Party affected by Force Majeure shall provide prompt notice thereof to the other Party. Such notice shall specify the length of the delay expected to result from the Force Majeure. The Party affected by Force Majeure shall keep the other Party apprised of its progress in eliminating and/or mitigating the adverse effects of such Force Majeure.

## **ARTICLE 8 REPORTING AND AUDITING**

### **8.1 Annual Reporting.**

During the period following the initial Fee Commencement Date, Grid Assurance shall prepare and deliver to Subscriber no later than September 1 of each year:

- (a) a reasonably detailed annual budget for the immediately subsequent calendar year;
- (b) a reasonably detailed budget forecast for the immediately subsequent five (5) calendar years; and
- (c) a good faith, non-binding estimate of the Sparing Service Fee that will be owed by Subscriber for Sparing Service for the immediately subsequent calendar year.

### **8.2 Quarterly Reporting.**

During the period following the initial Fee Commencement Date, Grid Assurance shall, for each Equipment Class in which any of Subscriber's Designated Transmission Owners is participating, prepare and deliver to Subscriber quarterly reports on:

- (a) budget reconciliation and Transmission Owner Allocated Shares for the prior calendar quarter;
- (b) the types of Inventoried Spares (*i.e.*, Equipment Manufacturers, models, ratings and operating characteristics) then located at a GA Warehouse, in transit to a GA Warehouse or under contract to Grid Assurance;

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- (c) maintenance activities on Inventoried Spares; and
- (d) sale prices for Inventoried Spares that were sold by Grid Assurance.

8.3 Audited Financial Statements.

For each full calendar year following the initial Fee Commencement Date, Grid Assurance shall prepare and deliver to Subscriber annual audited financial statements on Grid Assurance operations prepared in accordance with GAAP.

8.4 Audits.

- 8.4.1. Grid Assurance shall cause the Auditor to conduct, and provide Subscriber Group Members with a written report of, annual audits of Grid Assurance's books and records as they relate to its compliance with its obligations under the Subscription Agreements.
- 8.4.2. In the event Subscriber or any of its Designated Transmission Owners is directed by a Governmental Authority with jurisdiction over Subscriber or that Designated Transmission Owner to conduct an audit of Grid Assurance, Subscriber or that Designated Transmission Owner shall have the right to retain a Third Party reasonably acceptable to Grid Assurance to conduct such an audit; *provided, however*, that: (a) such Third Party must agree to comply with Grid Assurance's standard health, safety, security and confidentiality requirements, which requirements shall be shared with Subscriber upon written request; (b) Subscriber shall be obligated to reimburse Grid Assurance for any out-of-pocket costs reasonably incurred in connection with any such audit; (c) any such audit shall be conducted during the normal business hours of, and upon reasonable advance notice to, Grid Assurance; and (d) Subscriber or that Designated Transmission Owner shall provide Grid Assurance with a copy of the audit report promptly upon the completion thereof.

**ARTICLE 9**  
**SUBSCRIBER COMMITTEES**

9.1 Subscriber Advisory Committee.

- 9.1.1. Commencing no later than ninety (90) days after the Acceptance Date and continuing throughout the term of the Agreement, there shall be a Subscriber Advisory Committee, which shall be comprised of no fewer than five (5) Subscriber Representatives. The Subscriber Advisory Committee may, at its discretion, provide input and recommendations to the Board on matters affecting Subscriber Group Members; *provided, however*, that except as expressly provided in Section 9.1.2 of this Part 2, the Subscriber Advisory Committee shall have no authority with respect to the operation or management of Grid Assurance or any actions taken by the Board.
- 9.1.2. The following actions by Grid Assurance shall be subject to the approval of the Subscriber Advisory Committee, such approval not to be unreasonably withheld, delayed or conditioned:
  - (a) selection of the Auditor;
  - (b) amendment of the Sparing Protocols;
  - (c) amendment of the Deployment Protocols; and

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- (d) any action that would increase by more than twenty percent (20%) (i) the common equity balance of Grid Assurance (as determined in accordance with GAAP and reflected on the Grid Assurance balance sheet) or (ii) operating and maintenance expenses of Grid Assurance that are included in “Common Subscriber Costs” pursuant to Schedule 5.1, as such costs are reflected in Grid Assurance’s annual budget or five-year budget forecast.

9.1.3. Any matter subject to the approval of the Subscriber Advisory Committee pursuant to Section 9.1.2 of this Part 2 shall be deemed approved unless, within sixty (60) days of such matter being referred by notice to the Subscriber Representatives on the Subscriber Advisory Committee: (a) a majority of the Subscriber Representatives on the Subscriber Advisory Committee vote to disapprove such matter; and (b) at least one (1) Subscriber Representative on the Subscriber Advisory Committee provides the Board with notice to that effect, which notice shall include a reasonably detailed, written statement of the basis of such disapproval.

9.1.4. Grid Assurance shall provide the Subscriber Representatives on the Subscriber Advisory Committee with information as they may reasonably request to facilitate their consideration of any matters referred to that committee for approval.

## 9.2 Equipment Committees.

9.2.1. Commencing no later than thirty (30) days after the establishment of each Equipment Class and continuing throughout the term of the Agreement, there shall be an Equipment Committee for that Equipment Class. Each Equipment Committee shall be comprised of one (1) Subscriber Representative appointed by each Subscriber Group Member participating in the associated Equipment Class. Each Equipment Committee may, at its discretion, provide input and recommendations to the Board on matters affecting Subscriber Group Members participating in the associated Equipment Class; *provided, however*, that except as expressly provided in Section 9.2.2 of this Part 2, no Equipment Committee shall have any authority with respect to the operation or management of Grid Assurance or any action taken by the Board.

9.2.2. The following actions by Grid Assurance with respect to an Equipment Class or any Subscriber Group Member that has an affiliated Transmission Group Member participating in that Equipment Class shall be subject to the approval of the Equipment Committee associated with that Equipment Class, such approval not to be unreasonably withheld, delayed or conditioned:

- (a) acquisition of an Inventoried Spare with Equipment Manufacturer warranties that are not assignable by Grid Assurance to a purchaser of that Inventoried Spare;
- (b) an amendment of Schedule 2.1 to increase in the Nominated Quantity of any Transmission Group Member participating in that Equipment Class if that increase would, in Grid Assurance’s reasonable judgment, increase the Sparing Service Fee for any Subscriber Group Member with an affiliated Transmission Group Member already participating in that Equipment Class by more than twenty percent (20%); and
- (c) participation in that Equipment Class by a new Transmission Group Member if that participation would, in Grid Assurance’s reasonable judgment, increase the Sparing Service Fee for any Subscriber Group Member with an affiliated Transmission Group Member already participating in that Equipment Class by more than twenty percent (20%).

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- 9.2.3. Any matter subject to the approval of an Equipment Committee pursuant to Section 9.2.2 of this Part 2 shall be deemed approved unless, within thirty (30) days of such matter being referred by notice to the Subscriber Representatives on such Equipment Committee: (a) Subscriber Representatives holding no less than two-thirds (2/3) of the voting power on that Equipment Committee vote to disapprove such action; and (b) at least one (1) Subscriber Representative on that Equipment Committee notifies Grid Assurance of such voting results, which notice shall include a reasonably detailed, written statement of the basis of such disapproval; *provided, however,* that Grid Assurance may, by notice to the Subscriber Representatives on an Equipment Committee, reduce the Equipment Committee's thirty (30) day review period for a proposed Discretionary Sale pursuant to Section 4.2.3, Section 4.2.4 or Section 4.2.5 of this Part 2.
- 9.2.4. Each Subscriber Representative on an Equipment Committee shall have voting rights on that committee equal to the Nominated Quantity of its affiliated Transmission Group Members participating in that Equipment Class.
- 9.2.5. Grid Assurance may not eliminate an Equipment Class or modify the description of the Inventoried Spares to be maintained in that Equipment Class without the unanimous approval of the Subscriber Representatives on the Equipment Committee associated with that Equipment Class.

9.3 Subscriber Representatives.

- 9.3.1. The Board shall appoint the Subscriber Representatives on the initial Subscriber Advisory Committee, each of whom shall serve for a term not to exceed one (1) year.
- 9.3.2. The initial Subscriber Advisory Committee shall have authority to establish (and each future Subscriber Advisory Committee shall have authority to amend) rules and procedures pertaining to the functions and operation of the Subscriber Advisory Committee, including with respect to the election and terms of office for its Subscriber Representatives and meeting notice requirements; *provided, however,* that: (a) Subscriber Group Members shall have the exclusive right to select the Subscriber Representatives on the Subscriber Advisory Committee (other than the Subscriber Representatives on the initial Subscriber Advisory Committee); (b) in the event there are at least three (3) Subscriber Group Members that are not Affiliates of owners of Grid Assurance, such Subscriber Group Members shall be entitled to select one (1) Subscriber Representative on the Subscriber Advisory Committee; and (c) once any Subscriber Representative(s) affiliated with one or more Transmission Group Members serves on the Subscriber Advisory Committee for two (2) consecutive terms (excluding the term(s) of any Subscriber Representative(s) appointed to the initial Subscriber Advisory Committee), no Subscriber Representative affiliated with any such Transmission Group Members shall be eligible to serve on the Subscriber Advisory Committee until all other Subscriber Group Members have had an affiliated Subscriber Representative serve (or such other Subscriber Group Members have waived their right to have an affiliated Subscriber Representative serve) on the Subscriber Advisory Committee (with such limitation on eligibility being repeated as Subscriber Representatives affiliated with Subscriber Group Members are re-selected to serve on the Subscriber Advisory Committee from time to time).
- 9.3.3. Each Subscriber Representative on the Subscriber Advisory Committee or any Equipment Committee shall be responsible for keeping Grid Assurance apprised by notice of: (a) his or her identity and contact information for notices; (b) if there is a limit to his or her term as Subscriber

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Representative, when such term ceases; and (c) the identity of his or her replacement Subscriber Representative.

9.4 Board Representatives.

9.4.1. Grid Assurance shall designate an individual to serve as a Board Representative on the Subscriber Advisory Committee and each Equipment Committee; *provided, however*, that: (a) there may be different Board Representatives on each such committee; and (b) Grid Assurance may remove or replace Board Representatives from time to time as it sees fit.

9.4.2. Upon the appointment, removal or replacement of a Board Representative on the Subscriber Advisory Committee or any Equipment Committee, Grid Assurance shall provide notice to the Subscriber Representatives on that committee of the identify of, and contact information for notices to, that Board Representative.

9.5 Notices.

9.5.1. Notice shall be deemed to have been given to the Subscriber Representatives on the Subscriber Advisory Committee if such notice is delivered to all Persons then identified by notice to Grid Assurance as the Subscriber Representatives on the Subscriber Advisory Committee.

9.5.2. Notice shall be deemed to have been given to a Subscriber Group Member's Subscriber Representative on an Equipment Committee if such notice is delivered to the Person then identified by notice from that Subscriber Group Member to Grid Assurance as its Subscriber Representative on that Equipment Committee.

**ARTICLE 10**  
**SUBSCRIBER CREDIT REQUIREMENTS**

10.1 Minimum Acceptable Credit Rating.

Subject to Section 10.2 of this Part 2, during the term of the Agreement, Subscriber shall maintain a credit rating on its long-term unsecured debt obligations of at least "BBB-" by S&P or "Baa3" by Moody's.

10.2 Alternative Credit Support.

If, at any time during the term of the Agreement, Subscriber fails to meet the minimum credit rating set forth in Section 10.1 of this Part 2, it shall: (a) notify Grid Assurance of such circumstance no later than ten (10) days after the occurrence thereof; and (b) commencing no later than twenty (20) days after the occurrence of such circumstance, and continuing throughout the period in which such circumstance persists, maintain in effect:

- (a) an irrevocable, stand-by letter of credit in favor of Grid Assurance, which letter of credit shall (i) have a face amount no less than the Letter of Credit Amount (such amount to be updated on an annual basis), (ii) be issued by a United States bank that has a credit rating of at least A- from S&P or A3 from Moody's, and (iii) be subject to terms and conditions (including a replenishment obligation) reasonably acceptable to Grid Assurance;
- (b) an irrevocable corporate guarantee of Subscriber's payment obligations pursuant to the Agreement in favor of Grid Assurance, which guarantee shall be issued (i) by a guarantor

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reasonably acceptable to Grid Assurance, and (ii) on terms and conditions reasonably acceptable to Grid Assurance; or

- (c) such other credit support or evidence of creditworthiness as may be reasonably acceptable to Grid Assurance (based on considerations applied consistently by Grid Assurance).

**ARTICLE 11**  
**INDEMNIFICATION**

**11.1 Reciprocal Indemnities.**

To the fullest extent permitted by applicable law, each Party shall indemnify, defend and hold harmless such other Party's Indemnified Persons from and against all Claims asserted by Third Parties to the extent caused by: (a) a breach of the Agreement by the Indemnifying Party; or (b) the negligent acts or omissions, or any fraud or willful misconduct, of the Indemnifying Party, its agents, representatives or contractors of any tier or any of their respective officers, directors or employees in connection with, or related to, the Agreement; *provided, however*, that Grid Assurance shall have no obligation to indemnify, defend or hold harmless any Subscriber Indemnified Person with respect to any Claim asserted by any of Subscriber's customers.

**11.2 Subscriber Indemnity.**

To the fullest extent permitted by applicable law, Subscriber shall indemnify, defend and hold harmless Grid Assurance's Indemnified Persons from and against all Claims asserted by any of Subscriber's customers in connection with, or related to, the Agreement or any sale or unavailability of Inventoried Spares pursuant hereto, regardless of the underlying cause or basis of any such Claim(s).

**11.3 Defense of Indemnified Claims.**

11.3.1. Within a reasonable time after receipt by an Indemnified Person of any Claim as to which an indemnity obligation pursuant to the Agreement may apply, the Party associated with such Indemnified Person shall notify the Indemnifying Party of such fact; *provided, however*, that no delay in notifying the Indemnifying Party shall relieve such Indemnifying Party of its indemnification obligations except to the extent that it is materially prejudiced by such delay.

11.3.2. The Indemnifying Party shall diligently, competently and in good faith control and conduct the defense of any Claim as to which an indemnity applies; *provided, however*, that the Indemnifying Party may not settle or compromise any such Claim without the Indemnified Person's consent (such consent not to be unreasonably withheld, delayed or conditioned) unless the terms of such settlement or compromise unconditionally release the Indemnified Person from any and all liability with respect thereto and do not impose any obligations on any Indemnified Person.

11.3.3. An Indemnified Person shall have the right to assume the defense of, and to settle or compromise, any indemnified Claim at the Indemnifying Party's expense if: (a) the Indemnifying Party fails to acknowledge, in writing, its responsibility to assume the defense of such Claim; or (b) the Indemnifying Party fails to conduct the defense of such Claim.



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11.3.4. An Indemnified Person shall have the right, at its sole cost and expense, to: (a) be represented by advisory counsel of its own selection; and/or (b) monitor the progress and handling of an indemnified Claim.

11.4 Effect of Workers' Compensation Laws.

An Indemnifying Party's obligations to indemnify, defend and hold harmless Indemnified Persons shall not be reduced or limited in any way by any provision of any workers' compensation act, disability benefits act or other employee benefit act or by reason of any limitation on the amount or type of damages, compensation or benefits payable by or for the Indemnifying Party or any of its subcontractors under workers' compensation acts, disability benefit acts or other employee benefit acts, and each Party hereby waives immunity under such acts to the extent such acts would bar recovery under, or full enforcement of, such Party's indemnification obligations hereunder.

11.5 No Limitation on Direct Claims.

Nothing in this Article 11 shall be interpreted to limit or affect in any way any Claim by one Party (whether based in contract, warranty, tort, strict liability or any other theory of liability) against the other Party for damages resulting from the acts or omissions of such other Party.

**ARTICLE 12**  
**CONFIDENTIALITY**

Information provided or received by a Party pursuant to, or in connection with, the Agreement shall be subject to the NDA attached hereto as Schedule 12.

**ARTICLE 13**  
**TERM AND TERMINATION**

13.1 Initial Term.

The initial term of the Agreement shall commence on the Execution Date and continue until the fifth (5th) anniversary of the Acceptance Date.

13.2 Automatic Renewals.

Upon the expiration of the initial term and each renewal term, the term of the Agreement shall automatically be renewed for a subsequent five (5) year period without any action or notice required by or to either Party.

13.3 Termination by Subscriber.

13.3.1. Subject to Section 13.4 of this Part 2, Subscriber may terminate the Agreement for any reason or no reason by delivering a Termination Notice to Grid Assurance.

13.3.2. No later than thirty (30) days after receipt of a Termination Notice, Grid Assurance shall provide Subscriber with a statement of the Termination Liability that would result from a termination of the Agreement (which statement shall include reasonable supporting documentation). Subscriber may, in its sole discretion and by notice to Grid Assurance, withdraw a Termination Notice at any time within fifteen (15) days of receipt of such statement. If Subscriber fails to withdraw a

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Termination Notice by the end of such fifteen (15) day period, the Agreement shall automatically terminate on and as of such date.

13.3.3. Promptly upon receipt of a Termination Notice from a Subscriber Group Member, Grid Assurance shall forward a copy of that Termination Notice to all Subscriber Group Members with affiliated Transmission Group Members then participating in any Equipment Class(es) directly impacted by that Termination Notice.

13.4 Subscriber Liability upon Termination.

13.4.1. Upon a termination of the Agreement by Subscriber (other than pursuant to Section 3.5) or by Grid Assurance based on an Event of Default by Subscriber, Subscriber shall pay Grid Assurance: (a) all Sparing Service Fees and any other amounts owed or liabilities accrued pursuant to the Agreement through the date as of which the Agreement is terminated; plus (b) the Termination Liability. Subscriber shall pay such amounts no later than sixty (60) days after the date of a Termination Notice or, if the Agreement is terminated based on an Event of Default by Subscriber, on the date of such termination. Payment of such amounts shall be the sole and exclusive remedy for Grid Assurance, and the sole and exclusive liability of Subscriber, upon a termination of the Agreement by Subscriber or by Grid Assurance based on an Event of Default by Subscriber.

13.4.2. If, at any time within five (5) years of the termination of the Agreement, Grid Assurance proposes to conduct a Discretionary Sale of an Inventoried Spare (other than pursuant to Section 4.2.3, Section 4.2.4 or Section 4.2.5 of this Part 2) from an Equipment Class in which any of Subscriber's Designated Transmission Owners participated immediately prior to that termination: (a) Grid Assurance shall provide advance notice of such Discretionary Sale to Subscriber; and (b) if Subscriber or any of its Designated Transmission Owners wishes to participate in the Discretionary Sale process for that Inventoried Spare, Subscriber and such Designated Transmission Owners shall be entitled to apply as a credit toward the purchase price for that Inventoried Spare an amount that, in the aggregate, is equal to the quotient of (i) the Equipment Contribution (as described in Schedule 13.3) applicable to that Equipment Class and paid by Subscriber as part of its Termination Liability divided by (ii) the number of Inventoried Spares in the applicable Equipment Class at the time of termination.

**ARTICLE 14**  
**REMEDIES; LIMITATIONS OF LIABILITY**

14.1 Remedies.

14.1.1. Subject to any limitations of remedies and/or limitations of liability set forth herein, each Party shall be entitled to its remedies at law and in equity in connection with the Agreement.

14.1.2. Without limiting a Party's remedies in accordance with Section 14.1.1 of this Part 2, upon an Event of Default, the non-defaulting Party shall have the right to terminate the Agreement upon not less than thirty (30) days' advance notice.

14.1.3. Subject to any remedies that are expressly stated to be exclusive, the rights and remedies of the Parties pursuant to the Agreement are cumulative and the exercise of any right or remedy shall

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not restrict, limit or prejudice in any way the exercise of any other right or remedy, concurrently or subsequently.

14.2 Waiver of Consequential Damages.

NOTWITHSTANDING ANY OTHER PROVISION OF THE AGREEMENT, EACH PARTY HEREBY WAIVES ANY RIGHT IT MAY HAVE AGAINST THE OTHER PARTY OR ANY OF THE OTHER PARTY'S CONTRACTORS OR SUPPLIERS OF ANY TIER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, PUNITIVE, CONSEQUENTIAL OR EXEMPLARY DAMAGES OF ANY KIND OR NATURE WHATSOEVER, OR DAMAGES ARISING FROM, OR IN CONNECTION WITH, SUCH PARTY'S LOSS OF ACTUAL OR ANTICIPATED PROFITS OR REVENUES, IN EACH CASE ARISING OUT OF, IN CONNECTION WITH, OR RESULTING FROM THE AGREEMENT, REGARDLESS OF WHETHER ANY CLAIM FOR SUCH DAMAGES IS BASED ON CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE), STRICT LIABILITY OR OTHERWISE; *provided, however*, that this Section 14.2 shall not prevent recovery of, or affect in any way, a Claim for indemnification pursuant to the terms hereof.

14.3 Limitation of Liability.

To the maximum extent permitted by applicable law, and notwithstanding any other provision of the Agreement, the aggregate liability of Grid Assurance to Subscriber, its Designated Transmission Owners, their Affiliates and their respective officers, directors and employees in connection with the Agreement (exclusive of any liabilities payable by Grid Assurance insurers) shall be limited to the greater of (a) the total amount of the estimated annual Sparing Service Fee described in the Fee Confirmation Notice and (b) the total amount of the Sparing Service Fee actually paid by Subscriber during the most recent twelve (12) Billing Periods; *provided, however*, that such limitation shall not apply to the extent that Grid Assurance's liability is based on its fraud, gross negligence or willful misconduct.

14.4 Acknowledgment.

Each Party acknowledges and agrees that: (a) the costs and losses that would be suffered by Grid Assurance and other Subscriber Group Members and Transmission Group Members as a result of a termination of the Agreement or the reduction by Subscriber of a Nominated Quantity for any Equipment Class are difficult to ascertain with certainty; (b) both the Termination Liability and the Reduction Liability formulations represent reasonable estimates of such costs and losses; (c) neither the Termination Liability or the Reduction Liability is intended to be a penalty; and (d) it will not assert that the Termination Liability or the Reduction Liability represents a penalty. The Termination Liability and the Reduction Liability will be due and payable by Subscriber in accordance with the terms and conditions of the Agreement regardless of the actual costs or losses suffered as a result of a termination of the Agreement by Subscriber or by Grid Assurance based on an Event of Default by Subscriber or the amendment of the Agreement to reduce a Nominated Quantity for any Equipment Class in which any of Subscriber's Designated Transmission Owners is participating.

**ARTICLE 15**  
**REPRESENTATIONS, WARRANTIES AND ACKNOWLEDGEMENTS**

15.1 Mutual Representations and Warranties.

Each Party hereby represents and warrants to the other Party, as of the Execution Date, that:

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- (a) it is duly organized, validly existing and in good standing under the laws of the jurisdiction of its organization, and is duly qualified to do business therein and in all other jurisdictions in which the nature of the business conducted by it makes such qualification necessary and where failure to so qualify could reasonably be expected to have a material adverse effect on its ability to perform its obligations pursuant to the Agreement;
- (b) it is not in violation of any applicable laws or permits or judgments issued or entered by any Governmental Authority, which violation, individually or in the aggregate with other such violations, could reasonably be expected to have a material adverse effect on its ability to perform its obligations pursuant to the Agreement;
- (c) there are no Claims pending or, to its knowledge, threatened against it which, if adversely determined, could reasonably be expected to have a material adverse effect on its ability to perform its obligations pursuant to the Agreement;
- (d) none of the execution, delivery or performance of the Agreement conflict with, or result in a violation or breach of, the terms of its charter, by-laws or other organizational documents or any applicable law, regulation, order, writ, injunction, award, judgment or decree of any court or Governmental Authority or any agreement, contract, indenture or other instrument to which it or its assets is bound or to which it or its assets is subject;
- (e) the execution, delivery and performance of the Agreement have been duly authorized by all requisite corporate or other company action and it has all requisite corporate or other company power and authority to enter into the Agreement and perform its obligations hereunder; and
- (f) the Agreement has been duly and validly executed and delivered by it and constitutes its legal, valid and binding obligation enforceable against it in accordance with its terms, except as such enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or other similar laws relating to the enforcement of creditors' rights generally or by the application of general equitable principles (regardless of whether considered in a proceeding at law or in equity).

15.2 Subscriber Representation and Warranty.

Subscriber hereby represents and warrants to Grid Assurance, as of the Execution Date, that:

- (a) each Designated Transmission Owner is the direct owner or lessee of an electric transmission system; and
- (b) each Nominated Quantity represents Subscriber's reasonable estimate, based on Good Utility Practice, of the number of Inventoried Spares that its Designated Transmission Owners, in the aggregate, may require to restore electric service following a Qualifying Event.

15.3 Subscriber Acknowledgements.

Subscriber hereby acknowledges and agrees that:

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- (a) certain Subscriber Group Members and Transmission Group Members are Affiliates of certain owners of Grid Assurance;
- (b) Grid Assurance cannot, and is making no attempt or representation as to its ability to, maintain quantities of Inventoried Spares that will be adequate to meet the needs of all Transmission Group Members in all circumstances, including circumstances in which one or more Qualifying Events affect multiple Transmission Group Members simultaneously or other circumstances that result in damage, destruction or inoperability of transmission-related equipment of Transmission Group Members that is beyond the needs planned for by the Sparing Protocols; and
- (c) application of the Deployment Protocols may result in prioritized sales of Inventoried Spares to Transmission Group Members other than Subscriber's Designated Transmission Owners, including in situations where one (1) or more Designated Transmission Owners may have suffered Qualifying Events and there are insufficient Inventoried Spares to satisfy the needs of all Transmission Group Members, including Subscriber's Designated Transmission Owners.

**ARTICLE 16**  
**ASSIGNMENT**

16.1 Assignments Subject to Approval.

Any assignment of the Agreement (other than an assignment described in Section 16.2 of this Part 2) shall be subject to the approval of the non-assigning Party, such approval not to be unreasonably withheld, delayed or conditioned.

16.2 Permitted Assignments.

16.2.1. Subject to the conditions set forth in Section 16.3 and Section 16.4 of this Part 2, Grid Assurance hereby consents to the assignment of the Agreement in its entirety by Subscriber to a purchaser or transferee of all or any material portion of the electric transmission system(s) of one (1) or more of Subscriber's Designated Transmission Owners.

16.2.2. Each Party hereby consents to a collateral assignment of the Agreement by the other Party to a Lender and, subject to the conditions set forth in Section 16.3 of this Part 2, to the subsequent assignment by such Lender to a purchaser or transferee of all or any material portion of the electric transmission system(s) of one (1) or more of Subscriber's Designated Transmission Owners.

16.3 Conditions to Assignments.

16.3.1. Any assignment by Subscriber (other than a collateral assignment to a Lender pursuant to Section 16.2.2 of this Part 2) shall be subject to receipt by Grid Assurance, in form and substance reasonably acceptable to Grid Assurance, of: (a) a written certification by the assignee that the representations and warranties set forth in Section 15.1 and Section 15.2 of this Part 2 are true and correct as to the assignee as of the date of the assignment; (b) a written acknowledgement by the assignee of the matters set forth in Section 15.3 of this Part 2; and (c) evidence that the assignee is in compliance with Article 10 of this Part 2 (Subscriber Credit Requirements).

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16.3.2. No assignment of the Agreement shall act to release, or be deemed to release, the assigning Party from any of its obligations hereunder unless the assignee (including a purchaser or transferee of all or any material portion of the electric transmission system of a Designated Transmission Owner from a Lender pursuant to a collateral assignment to such Lender pursuant to Section 16.2.2 of this Part 2) enters into an agreement, in form and substance reasonably acceptable to the non-assigning Party, to assume the obligations and liabilities of the assigning Party.

16.4 Partial Transfers of Subscriber's Electric Transmission System.

16.4.1. In the event Subscriber or any Affiliate thereof enters into a transaction, the result of which will be that any material portion of the electric transmission system(s) of any Designated Transmission Owner will be owned by a Third Party and, as a result of such transaction, Subscriber desires to reduce the Nominated Quantity in any Equipment Class in which any of its Designated Transmission Owners then participates:

- (a) Grid Assurance shall, at Subscriber's request, negotiate in good faith with the Third Party Transmission Purchaser in an effort to enter into one (1) or more new Subscription Agreements with such Third Party Transmission Purchaser and/or its Affiliate(s);
- (b) if, in connection with a transaction described in this Section 16.4.1, the Third Party Transmission Purchaser and/or its Affiliates enter into one (1) or more new Subscription Agreements (or amend one (1) or more existing Subscription Agreements) and, pursuant thereto, the amount of any reduction in the Nominated Quantity pursuant to an amendment of the Agreement (for each Equipment Class for which the Nominated Quantity was reduced by such amendment) is included in any new, or added to any amended, Subscription Agreement(s) executed by the Third Party Transmission Purchaser and/or its Affiliates, notwithstanding Section 6.4 of this Part 2, Subscriber shall not be liable for any Reduction Liability in connection with the reduction in Nominated Quantity(ies) pursuant to such amendment of the Agreement; and
- (c) if, in connection with a transaction described in this Section 16.4.1, the Third Party Transmission Purchaser and/or its Affiliates do not enter one (1) or more new Subscription Agreements (or amend one (1) or more existing Subscription Agreements) pursuant to which the amount of any reduction in the Nominated Quantity pursuant to an amendment of the Agreement (for each Equipment Class for which the Nominated Quantity was reduced by such amendment) is not fully added to new or amended Subscription Agreement(s) executed by the Third Party Transmission Purchaser and/or its Affiliates, Subscriber shall be liable for the Reduction Liability calculated based on the difference (for each Equipment Class for which the Nominated Quantity was reduced by such amendment) between (i) Subscriber's Nominated Quantity immediately prior to the amendment of the Agreement, and (ii) the total Nominated Quantities of Third Party Transmission Purchaser and its Affiliates under any new or amended Subscription Agreements.

16.4.2. Subscriber shall pay any Reduction Liability owed in connection with an amendment of the Agreement to reduce any Nominated Quantity(ies) pursuant to Section 16.4.1(c) of this Part 2 no later than thirty (30) days after the effective date of such amendment.

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## **ARTICLE 17**

### **NOTICES**

#### 17.1 Manner of Notice.

All notices, approvals, consents or other communications required or authorized pursuant to the Agreement must be in writing, addressed to the other Party at the address(es) specified on Schedule 17 and shall be delivered by electronic mail (with confirmation of receipt), hand delivery or nationally recognized overnight courier service and shall be deemed given on the Business Day following the day on which it was delivered (unless hand delivered prior to 5:00 p.m. local time on a Business Day, in which case it shall be deemed received on such day).

#### 17.2 Change in Notice Information.

Subscriber may modify the notice information set forth on Schedule 17 by providing notice of such modification to Grid Assurance in accordance with Section 17.1 of this Part 2. Upon receipt of modified notice information from Subscriber or if Grid Assurance desires to modify its notice information, Grid Assurance shall prepare and provide to Subscriber a revised Schedule 17 setting forth the modified notice information, which revised schedule shall automatically, as of the date of delivery thereof to Subscriber: (a) be deemed to replace, supersede and be substituted for the Schedule 17 previously attached hereto; and (b) become part of the Agreement.

## **ARTICLE 18**

### **NON-RECOURSE OBLIGATIONS**

Notwithstanding any other provision of the Agreement, no Person other than the Parties hereto (including officers, employees, executives, directors, members, shareholders, agents and authorized representative of the Parties and their respective Affiliates) shall have any liability in connection with, or related to, the Agreement or any performance or non-performance hereunder other than, in the case of Subscriber, liability pursuant to the terms of a letter of credit, guarantee or other credit support provided pursuant to Article 10 of this Part 2.

## **ARTICLE 19**

### **GOVERNING LAW**

The rights and obligations of the Parties arising out of the Agreement shall be governed in all respects by, and enforced in accordance with, the laws of the State of New York (excluding Section 5-323 of the New York General Obligations Law) without regard to its conflicts of laws principles (other than Section 5-1401 of the New York General Obligations Law).

## **ARTICLE 20**

### **JURISDICTION, VENUE AND WAIVER OF JURY TRIAL**

#### 20.1 Jurisdiction.

Each Party hereby consents to personal jurisdiction in the State of Ohio for any Claim arising out of, or in connection with, the Agreement.

#### 20.2 Venue.

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20.2.1. Each Party hereby consents to venue in the state and federal courts sitting in the State of Ohio for any Claim arising out of, or in connection with, the Agreement.

20.2.2. TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, EACH PARTY IRREVOCABLY WAIVES ANY OBJECTION THAT IT MAY NOW OR HEREAFTER HAVE TO THE LAYING OF VENUE IN ANY STATE OR FEDERAL COURT SITTING IN FRANKLIN COUNTY, OHIO IN ANY ACTION OR PROCEEDING ARISING OUT OF, OR RELATING TO, THE AGREEMENT, AND HEREBY FURTHER IRREVOCABLY WAIVES AND AGREES NOT TO PLEAD OR CLAIM IN ANY SUCH COURT THAT ANY SUCH ACTION OR PROCEEDING HAS BEEN BROUGHT IN AN INCONVENIENT FORUM.

20.3 Waiver of Right to Jury Trial.

**TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, AND AS SEPARATELY BARGAINED-FOR CONSIDERATION, EACH PARTY HEREBY WAIVES ANY RIGHT TO TRIAL BY JURY IN CONNECTION WITH ANY CLAIM ARISING OUT OF, OR IN CONNECTION WITH, THE AGREEMENT.**

**ARTICLE 21**  
**MISCELLANEOUS PROVISIONS**

21.1 Contract Interpretation.

The following rules of construction shall apply when interpreting the Agreement:

- (a) all references in the Agreement to Parts, Articles, Sections and Schedules refer to Parts, Articles, Sections and Schedules of the Agreement unless expressly provided otherwise;
- (b) the headings appearing in the Agreement are for convenience only, do not constitute any part of the Agreement and shall be disregarded in construing the language contained herein;
- (c) the terms “herein,” “hereby,” “hereunder,” “hereof” and terms of similar import in the Agreement refer to the Agreement as a whole and not to any particular subdivision unless expressly so limited and the term “this Section” refers only to the Section hereof in which such words occur;
- (d) the word “including” (in its various forms) means “including without limitation”;
- (e) each Schedule to the Agreement shall be deemed to be incorporated herein by reference as if such Schedule were set forth in its entirety herein; and
- (f) no term of the Agreement shall be construed in favor of, or against, a Party as a consequence of one Party having had a greater role in the preparation or drafting of the Agreement, but shall be construed as if the language were mutually drafted by each Party with full assistance of counsel.

21.2 Entire Agreement.



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The Agreement constitutes the entire agreement between the Parties with respect to the subject matter hereof and supersedes all previous and collateral agreements or understandings with respect to such subject matter.

**21.3 Amendments.**

Subject to Section 2.2.3 and Section 4.3.3 of this Part 2, amendments to the Agreement shall only be effective if made in writing and signed by both Parties; *provided, however*, that amended Schedules may be replaced as expressly authorized herein and shall thereby become part of the Agreement. Any amendment of the Agreement shall be effective upon execution and delivery thereof by the Parties.

**21.4 Further Assurances.**

Each Party agrees to provide such information, execute and deliver any instruments and documents and to take such other actions as may be necessary or reasonably requested by each other Party in order to give full effect to the Agreement.

**21.5 Severability.**

If any provision of the Agreement is held to be illegal, invalid or unenforceable under present or future laws: (a) such provision shall be fully severable; (b) the Agreement shall be construed and enforced as if such illegal, invalid or unenforceable provision had never comprised a part of the Agreement; (c) the remaining provisions of the Agreement shall remain in full force and effect and shall not be affected by the illegal, invalid or unenforceable provision or by its severance from the Agreement; and (d) the Parties shall negotiate in good faith in attempting to amend such provision so that it is legal, valid and enforceable and would produce as nearly as possible the intended rights and obligations of the Parties.

**21.6 Sole Benefit.**

The Agreement and all rights hereunder are intended for the sole benefit of the Parties and shall not imply or create any rights on the part of, or obligations to, any other Person except to the extent expressly provided herein with respect to the rights of, and obligation to, Indemnified Persons and Designated Transmission Owners.

**21.7 Counterparts.**

The Parties may execute and deliver the Agreement in counterparts, all of which shall be deemed originals. Signatures delivered by facsimile or other electronic means shall be as valid as original ones.

**21.8 Survival.**

The provisions of the Agreement that by their nature survive its termination (including Article 11 (Indemnification), Section 13.4 (Subscriber Liability upon Termination) Article 14 (Remedies; Limitations of Liability) and Article 15 (Representations, Warranties and Acknowledgements) of this Part 2) shall survive such termination.

**21.9 No Partnership; Independent Contractor.**

21.9.1. The Agreement shall not be construed as creating a joint venture or partnership between the Parties.

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21.9.2. Grid Assurance shall perform its obligations pursuant to the Agreement as an independent contractor to Subscriber and shall not in any respect be deemed an agent of Subscriber for any purpose or reason whatsoever. Grid Assurance is an independent contractor and all of employees and agents shall be subject solely to the control, supervision and authority of Grid Assurance.

21.10 Waivers.

No waiver of any of the provisions of the Agreement shall be binding unless in writing and signed by a duly authorized representative of the Party or, if applicable, the Indemnified Person to be bound. No waiver by a Party of any right or obligation hereunder shall be interpreted as constituting a waiver going forward with respect to any similar or related circumstance.

*[END OF PART 2]*

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**SCHEDULE 2.1**

**EQUIPMENT CLASSES, DESIGNATED TRANSMISSION OWNERS  
 AND NOMINATED QUANTITIES**

Designated Transmission Owners

PUBLIC SERVICE COMPANY OF OKLAHOMA  
 OHIO POWER COMPANY  
 AEP TEXAS INC.  
 AEP OHIO TRANSMISSION COMPANY, INC.  
 AEP OKLAHOMA TRANSMISSION COMPANY, INC.  
 APPALACHIAN POWER COMPANY  
 AEP APPALACHIAN TRANSMISSION COMPANY, INC.  
 ELECTRIC TRANSMISSION TEXAS, LLC  
 INDIANA MICHIGAN POWER COMPANY  
 AEP INDIANA MICHIGAN TRANSMISSION COMPANY, INC.  
 KINGSPORT POWER COMPANY  
 KENTUCKY POWER COMPANY  
 AEP KENTUCKY TRANSMISSION COMPANY, INC.  
 SOUTHWESTERN ELECTRIC POWER COMPANY  
 WHEELING POWER COMPANY  
 AEP WEST VIRGINIA TRANSMISSION COMPANY, INC.

Nominated Quantities

<b>Equipment Class</b>	<b>Nominated Quantity*</b>
Circuit Breaker – CB-500	NP
Circuit Breaker – CB-345	15
Circuit Breaker – CB-230	NP
Circuit Breaker – CB-161	NP
Circuit Breaker – CB-138	20
Circuit Breaker – CB-115	NP
Circuit Breaker – CB-069	NP
Transformer – H500-L345 (1 $\phi$ )	NP
Transformer – H500-L230 560-2.1	NP
Transformer – H500-L230 (3 $\phi$ ) 675 2.9	NP
Transformer – H500-L069	NP
Transformer – H345-L230	NP
Transformer – H345-L161	NP
Transformer – H345-L138 450-2.3	5
Transformer – H345-L125	NP
Transformer – H345-L161-115 560 2.3	NP

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Transformer – H345-L069	NP
Transformer – H230-L161/138 250-4.5	NP
Transformer – H230-L115 400-3.8	NP
Transformer – H230-L069	NP

\* NP signifies that Subscriber is not participating in the designated Equipment Class.

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**SCHEDULE 2.2**

**SPARING PROTOCOLS**

1. Equipment Classes will be established in a manner intended to allow Subscriber Group Members to benefit from cost sharing and pooling.
2. The Target Inventory Level for each Equipment Class will be established based on a documented methodology that will provide for consideration of various factors, including:
  - a. the Nominated Quantities of Subscriber Group Members participating in the Equipment Class;
  - b. input from the Equipment Committee associated with that Equipment Class;
  - c. the types of Qualifying Event that could reasonably be expected to occur;
  - d. the perceived risk or probability of a Qualifying Event occurring; and
  - e. the anticipated magnitude of damage resulting from one or more Qualifying Events, including reasonably coincident Qualifying Events.
3. In evaluating the risk of technological or physical obsolescence of an Inventoried Spare, various factors will be considered, including:
  - a. the condition of the Inventoried Spare, as determined by tests and checks;
  - b. the length of time the Inventoried Spare has been in storage;
  - c. the then-current state of the Equipment Manufacturer's warranty on the Inventoried Spare;
  - d. maintenance previously performed or needed on the Inventoried Spare; and
  - e. technological changes pertaining to the Inventoried Spare and comparable equipment.
4. The Target Inventory Level for each Equipment Class will be re-evaluated from time to time, including after the deployment of an Inventoried Spare from that Equipment Class. When the number of Inventoried Spares in an Equipment Class is less than the Target Inventory Level, the stock of Inventoried Spares will be replenished to the Target Inventory Level as soon as reasonably practicable consistent with Good Utility Practice and Grid Assurance's procurement policies and practices. Inventoried Spares may be procured on an expedited basis if appropriate.
5. A variety of factors will be used in evaluating the types of Inventoried Spares to procure for each Equipment Class, including:
  - a. the technical requirements of Subscriber Group Members participating in the applicable Equipment Class;

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- b. industry experience with the equipment and the Equipment Manufacturer;
- c. price;
- d. commercial terms and conditions (including warranty provisions) available from Equipment Manufacturers; and
- e. the expected delivery date.

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**SCHEDULE 2.7**

**INSURANCE REQUIREMENTS**

**1. Required Insurance Coverage**

- (a) Workers' Compensation and Employers' Liability. If required, Grid Assurance shall maintain Workers' Compensation insurance coverage with statutory limits or qualified self-insurance in compliance with all applicable laws. Grid Assurance shall maintain Employers' Liability insurance coverage in the amount not less than \$1,000,000 bodily injury each accident, \$1,000,000 for each employee by disease and \$1,000,000 disease policy limit.
- (b) Automobile Liability Insurance. Grid Assurance shall maintain Automobile Liability insurance coverage in respect of all owned, non-owned and hired motor vehicles used on public highways. The limit of liability shall not be less than \$1,000,000 combined single limit for all owned, non-owned and hired motor vehicles.
- (c) Aircraft Liability Insurance. If required and if aircraft are used in connection with performance by Grid Assurance, Grid Assurance shall maintain Aircraft Liability insurance coverage in respect of all aircraft owned, non-owned, hired or chartered for use, if any. The limit of liability shall not be less than \$10,000,000 per occurrence.
- (d) Commercial General Liability. Grid Assurance shall maintain Commercial General Liability and Excess Liability insurance coverage for Grid Assurance's legal liability arising out of Grid Assurance operations with bodily injury, property damage and personal injury liability limits of commercially reasonable amounts consistent with Good Utility Practice. This requirement may be satisfied with any combination of primary or excess liability coverage and/or by a self-insured retention followed by excess liability insurance coverage.
- (e) Property Insurance. Grid Assurance shall maintain All-Risk Property insurance coverage for Grid Assurance property. Coverage shall be written on an "All-Risk" form at replacement cost valuation and shall include coverage for earth movement and flood, collapse, sinkhole, subsidence and removal of debris.

**2. Self-Insured Retentions and Deductibles**

Grid Assurance shall have the right to determine, in its reasonable judgment, the level of its self-insured retentions and/or deductibles under its insurance coverages.

**3. Evidence of Insurance**

Upon the request of Subscriber, Grid Assurance shall provide Subscriber with evidence of any insurance coverage required pursuant to this Schedule 2.7,

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**4. Insurance Company Standards**

All insurance coverage required pursuant to this Schedule 2.7 shall be issued by insurance companies having an A.M. Best rating of A- / VII or better as long as rated carriers are available. Other insurers may be used at the discretion of Grid Assurance.

**5. Endorsements**

To the extent the following endorsements may be obtained on a commercially reasonable basis without materially adversely affecting the quality of Grid Assurance's coverage for insured risks, Grid Assurance shall cause the insurance coverage required pursuant to this Schedule 2.7 to include the following endorsements:

- i. the insurer shall waive all rights of recovery and subrogation against Subscriber, its Affiliates and their respective officers, directors and employees; and
- ii. the liability insurance policies shall include Subscriber as an additional insured with respect to Subscriber's liability arising out of the operations of Grid Assurance.

**6. Primary and Non-Contributory Coverage**

The insurance coverage required pursuant to this Schedule 2.7 shall be primary to, and non-contributory with, any insurance or self-insurance of Subscriber.

**7. Several Liability and Cross Liability**

All Commercial General Liability and Excess/Umbrella Liability insurance coverage maintained by Grid Assurance pursuant to this Section 2.7 shall include severability of interest and cross-liability clauses.



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**SCHEDULE 3.2**

**FORM OF FEE CONFIRMATION NOTICE**

Reference is made to that certain Subscription Agreement dated as of \_\_\_\_\_, 20\_\_ (the "**Agreement**") between \_\_\_\_\_ [NAME OF SUBSCRIBER] ("**Subscriber**") and Grid Assurance LLC ("**Grid Assurance**"). Capitalized terms used but not defined in this Fee Confirmation Notice shall have the meanings ascribed to such terms in the Agreement.

Subscriber hereby confirms and serves notice to Grid Assurance that:

1. as of the date hereof, Subscriber is in receipt of a valid Fee Estimate Certification that covers every Equipment Class in which each Designated Transmission Owner is participating, as such Equipment Classes are designated on Schedule 2.1 of the Agreement (which Fee Estimate Certification is attached hereto as Attachment 1);
2. Subscriber has not received any Fee Estimate Certification after the Fee Estimate Certification attached hereto as Attachment 1;
3. the estimated Sparing Service Fee set forth in the Fee Estimate Certification attached hereto as Attachment 1 is acceptable; and
4. this Fee Confirmation Notice is irrevocable by Subscriber but shall automatically be rendered invalid if, after the date hereof, Grid Assurance delivers a new Fee Estimate Certification to Subscriber.

[NAME OF SUBSCRIBER]

By: \_\_\_\_\_  
[NAME OF DULY AUTHORIZED OFFICER]  
[TITLE]

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**SCHEDULE 4.1**

**FORM OF QE PURCHASE NOTICE**

Reference is made to that certain Subscription Agreement dated as of \_\_\_\_\_, 20\_\_ (the “**Agreement**”) between \_\_\_\_\_ [NAME OF SUBSCRIBER] (“**Subscriber**”) and Grid Assurance LLC (“**Grid Assurance**”). Capitalized terms used but not defined in this QE Purchase Notice shall have the meanings ascribed to such terms in the Agreement.

The undersigned (“[NAME OF DESIGNATED TRANSMISSION OWNER]”) hereby confirms and serves notice to Grid Assurance that:

5. [NAME OF DESIGNATED TRANSMISSION OWNER] is a Designated Transmission Owner under the Agreement.
6. On or about [DATE], a Qualifying Event occurred which damaged, destroyed or materially impaired the safe operation of equipment comprising [NAME OF DESIGNATED TRANSMISSION OWNER]’s electric transmission system.
7. Set forth in Attachment 1 hereto is a description of the Qualifying Event and its impact on [NAME OF DESIGNATED TRANSMISSION OWNER]’s electric transmission system, other interconnected transmission systems and electric consumers.
8. As a result of the Qualifying Event described in Attachment 1 hereto, [NAME OF DESIGNATED TRANSMISSION OWNER] desires to purchase the type(s) and quantity of Inventoried Spares identified in Attachment 2 hereto.
9. [NAME OF DESIGNATED TRANSMISSION OWNER] is purchasing the Inventoried Spare(s) referenced in Attachment 2 hereto for its own account either to replace electric transmission equipment that has been damaged, destroyed or materially impaired by a Qualifying Event or to replace spare equipment that has been installed or will be installed to replace electric transmission equipment that has been damaged, destroyed or materially impaired by a Qualifying Event.
10. The Agreement is in full force and effect as of the date hereof.

[NAME OF DESIGNATED TRANSMISSION OWNER]

By: \_\_\_\_\_  
[NAME OF DULY AUTHORIZED OFFICER]  
[TITLE]

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**SCHEDULE 4.3**

**DEPLOYMENT PROTOCOLS**

1. Upon the occurrence of a Qualifying Event affecting one or more Transmission Group Members, deployments of Inventoried Spares from an Equipment Class will be made on a first priority basis to Transmission Group Members participating in that Equipment Class (up to their respective Nominated Quantities, recognizing that multiple Transmission Group Members covered by a single Subscription Agreement will, in the aggregate, be limited to the Nominated Quantity for an Equipment Class). Such deployments shall be considered "Tier 1" deployments for purposes of these Deployment Protocols.
2. Grid Assurance will utilize the following priorities when considering Discretionary Sales of Inventoried Spares from an Equipment Class:
  - a. Tier 2 – to Transmission Group Members participating in that Equipment Class, in quantities above their respective Nominated Quantities, based on one or more Qualifying Events affecting such Transmission Group Members;
  - b. Tier 3 – to Transmission Group Members not participating in that Equipment Class based on one or more Qualifying Events affecting such Transmission Group Members;
  - c. Tier 4 – to Persons other than Transmission Group Members, at their request based on one or more circumstances that would be Qualifying Events if such Persons were Transmission Group Members participating in that Equipment Class;
  - d. Tier 5 – to Transmission Group Members participating in that Equipment Class based on circumstances that are not a Qualifying Event; and
  - e. Tier 6 – to Persons other than Transmission Group Members based on circumstances that would not be a Qualifying Event if such Persons were Transmission Group Members participating in that Equipment Class.
3. For purposes of applying these Deployment Protocols, reasonably coincident Qualifying Events affecting one or more Transmission Group Members may be considered simultaneously by Grid Assurance (without reference to the actual timing of their occurrence).
4. If the number of Inventoried Spares in an Equipment Class is inadequate to satisfy the demands of Transmission Group Members within a Tier described above, Inventoried Spares will be deployed in accordance with the terms of the Agreement on a non-discriminatory basis taking into consideration the following factors to the extent known by Grid Assurance:
  - a. within Tier 2, the relative Nominated Quantities of the Transmission Group Members participating in an Equipment Class (recognizing that multiple Transmission Group Members covered by a single Subscription Agreement will, in the aggregate, be limited to the Nominated Quantity for the applicable Equipment Class);
  - b. the impact on the stability of the bulk electric transmission network;

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- c. the total electric load and number of customers impacted; and
  - d. whether electric service can be restored with fewer Inventoried Spares than the quantities requested by the Transmission Group Members.
5. If there are multiple Inventoried Spares in an Equipment Class that are capable of meeting the needs of a purchaser, Inventoried Spares will be deployed from the GA Warehouse closest to the purchaser's affected facility on a "First In-First Out" basis for each Equipment Class. For a Discretionary Sale initiated by Grid Assurance (*i.e.*, not based on a request of a Transmission Group Member or other prospective purchaser), an Inventoried Spare may be deployed from an Equipment Class other than on a "First In-First Out" basis so long as all Transmission Group Members participating that Equipment Class are allowed to participate in the process by which the Discretionary Sale is conducted.

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**SCHEDULE 4.5**

**STANDARD TERMS FOR SALES OF INVENTORIED SPARES**

1. Delivery.

Sales of Inventoried Spares will be made on a Free Carrier (FCA) basis (Incoterms 2010) at the GA Warehouse at which such Inventoried Spares are located.

The Transmission Group Member will be solely responsible for:

- a) providing Grid Assurance with prompt notice of the identity of the designated carrier and the proposed transportation vehicle(s) to be used to receive the Inventoried Spares;
- b) providing all necessary transportation vehicles, all of which will be subject to Grid Assurance's approval, such approval not to be unreasonably withheld, delayed or conditioned;
- c) insuring all Inventoried Spare while in transit and thereafter; and
- d) arranging and paying for import clearance, if applicable.

Grid Assurance will be solely responsible for: (i) loading all Inventoried Spares onto the transportation vehicle of the Transmission Group Member's carrier; and (ii) clearing Inventoried Spares for export, if applicable.

Grid Assurance and the Transmission Group Member will reasonably cooperate in connection with the transportation of Inventoried Spares from a GA Warehouse, including with respect to scheduling the pick-up and delivery thereof.

2. Taxes and Other Fees.

As between the parties to the purchase and sale agreement, the Transmission Group Member will be solely responsible for all taxes, duties (including custom duties), assessments, fees (including export fees) and other costs and charges incurred in connection with, or as a result of, the purchase of Inventoried Spares.

Grid Assurance will reasonably cooperate with the Transmission Group Member to minimize any taxes, duties, assessments, fees and other costs and charges incurred in connection with, or as a result of, the sale of the Inventoried Spares; *provided, however*, that the Transmission Group Member will be solely responsible for notifying Grid Assurance of any actions or filings required to be taken or made, and providing exemption certificates and other documentation that may need to be completed or filed, to minimize any such taxes, duties, assessments, fees and other costs and charges.

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3. Operational Testing.

To the extent required by Good Utility Practice, Grid Assurance will conduct Operational Testing of Inventoried Spares prior to the delivery thereof to the Transmission Group Member. Grid Assurance will allow the Transmission Group Member and its representatives to witness, and shall reasonably cooperate with the Transmission Group Member to schedule, such Operational Testing; *provided, however*, that: (a) such Persons must agree to comply with Grid Assurance's standard health, safety, security and confidentiality requirements; and (b) Grid Assurance will not be responsible or liable in any way for any delays to the extent caused by or due to the Transmission Group Member or its representatives witnessing Operational Testing of Inventoried Spares.

4. Warranties.

Grid Assurance will warrant that each Inventoried Spare sold by Grid Assurance to the Transmission Group Member:

- a) has not been operated since its acquisition by Grid Assurance other than for purposes of Operational Testing, maintenance and other activities consistent with Good Utility Practice; and
- b) has been properly stored and maintained in accordance with Good Utility Practice and any additional requirements necessary to keep Equipment Manufacturers' warranties in effect during applicable warranty periods.

Grid Assurance will not make any other express warranties in connection with a sale of any Inventoried Spares. All implied warranties with respect to any such sale will be expressly disclaimed.

Grid Assurance will not be liable for the breach of any warranty to the extent such breach is caused by, or results from, Force Majeure.

5. Assignment of Equipment Manufacturer Terms.

Upon a sale of any Inventoried Spare to the Transmission Group Member, Grid Assurance will assign to the Transmission Group Member any warranties, indemnities and other terms and conditions that: (a) the Equipment Manufacturer of such Inventoried Spare agreed to upon the sale thereof to Grid Assurance; (b) remain in effect at the time of sale by Grid Assurance; and (c) are assignable. Sales of Inventoried Spares will be subject to any restrictions, limitations and conditions imposed by the applicable Equipment Manufacturer and made known to the Transmission Group Member at the time of sale, including any such conditions pertaining to the transportation, delivery and/or installation of the Inventoried Spares.

6. Title and Risk of Loss.

Title to, and risk of loss of, each Inventoried Spare sold by Grid Assurance to the Transmission Group Member will transfer when such Inventoried Spare is loaded onto the vehicle of the Transmission Group Member's designated carrier at a GA Warehouse.

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7. No Liens.

Any Inventoried Spare sold by Grid Assurance to the Transmission Group Member will be delivered free and clear of all liens and encumbrances.

8. Payment.

Payment for Inventoried Spares will be due and payable in full thirty (30) days after delivery of a proper invoice, which Grid Assurance shall provide upon delivery (unless the Transmission Group Member is providing credit support in the form of pre-payment, in which case Grid Assurance shall provide the Transmission Group Member with an invoice, and payment shall be due, prior to delivery).

9. Credit Support.

If, at the time of sale of any Inventoried Spares, the Transmission Group Member does not have a credit rating on its long-term unsecured debt obligations of at least "BBB-" by S&P or "Baa3" by Moody's, such sale will be subject to the Transmission Group Member providing Grid Assurance with:

- a) an irrevocable, stand-by letter of credit in favor of Grid Assurance, which letter of credit shall (i) have a face amount equal to the purchase price of the Inventoried Spare, (ii) be issued by a United States bank having a credit rating of at least A- from S&P or A3 from Moody's, and (iii) be subject to terms and conditions reasonably acceptable to Grid Assurance;
- b) an irrevocable corporate guarantee in favor of Grid Assurance issued by a guarantor reasonably acceptable to Grid Assurance on terms and conditions reasonably acceptable to Grid Assurance;
- c) full payment of the purchase price prior to delivery; or
- d) such other credit support or evidence of creditworthiness as may be reasonably acceptable to Grid Assurance (based on considerations applied consistently by Grid Assurance).

10. Indemnification.

In connection with a sale of any Inventoried Spare, each party to the purchase and sale agreement will indemnify, defend and hold harmless the other party's Indemnified Persons from and against all Claims asserted by Third Parties to the extent caused by: (a) a breach of that purchase and sale agreement by the indemnifying party; or (b) the negligent acts or omissions, or any fraud or willful misconduct, of the indemnifying party, its agents, representatives or contractors of any tier or any of their respective officers, directors or employees in connection with, or related to, that purchase and sale agreement; *provided, however*, that Grid Assurance shall have no obligation to indemnify, defend or hold harmless the Transmission Group Member, its affiliated Subscriber Group Member or any of such Subscriber Group Member's Subscriber Indemnified Persons with respect to any Claim asserted by any customers of the Transmission Group Member or any of its Affiliates.

The Transmission Group Member will indemnify, defend and hold harmless Grid Assurance's Indemnified Persons from and against all Claims asserted by any customers of the Transmission Group Member or its Affiliates in connection with, or related to, a purchase and sale of any Inventoried Spare.

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11. Insurance.

Each of Grid Assurance and the Transmission Group Member will be obligated to: (a) procure and maintain (through Third Party insurers or self-insurance programs reasonably acceptable to the other party) specified property and liability insurance coverage; and (b) provide evidence of required insurance coverage upon the request of the other party.

12. Remedies; Limitations of Liability.

Grid Assurance's aggregate liability in connection with the purchase and sale of any Inventoried Spare will be limited to the purchase price of such Inventoried Spare, except to the extent of damages caused by Grid Assurance's gross negligence, fraud or willful misconduct.

The Transmission Group Member's exclusive remedy against Grid Assurance for a failure by Grid Assurance to properly deliver any Inventoried Spare will be repair or replacement of such equipment or reimbursement of the purchase price.

Each of Grid Assurance and the Transmission Group Member will waive any right it may have against the other party or any of the other party's contractors or suppliers of any tier for any special, indirect, incidental, punitive, consequential or exemplary damages of any kind or nature whatsoever, or damages arising from, or in connection with, such party's loss of actual or anticipated profits or revenues, in each case arising out of, in connection with, or resulting from the purchase or sale of any Inventoried Spare(s), regardless of whether any claim for such damages is based on contract, warranty, tort (including negligence), strict liability or otherwise.

13. Assignment.

The Transmission Group Member will be permitted to assign the purchase and sale agreement pertaining to any Inventoried Spare(s) to a subsequent purchaser of such Inventoried Spare(s). Any other assignment of such purchase and sale agreement will be subject to the approval of the non-assigning party, such approval not to be unreasonably withheld, delayed or conditioned. No assignment will relieve the assigning party of its obligations or liabilities in connection with any such purchase and sale agreement unless the parties and the assignee enter into a definitive assignment and assumption agreement.



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**GRID ASSURANCE LLC  
SUBSCRIPTION AGREEMENT**

**SCHEDULE 5.1**

**SPARING SERVICE FEE**

The Sparing Service Fee for each Billing Period shall be equal to the amount calculated based on the following formula, as applied to every Equipment Class in which Subscriber is participating:

$$SSF = \sum TOAS_{EC} \times [ECC + ACC_{EC} + (AEB_{EC} \times TAR) + OC_{EC} - SCA_{EC}]$$

Where

SSF = ***Sparing Service Fee***, as defined in Part 1 of the Agreement.

TOAS<sub>EC</sub> = ***Transmission Owner Allocated Share*** for the applicable Equipment Class; *provided, however*, that for purposes of calculating the Sparing Service Fee payable for any Billing Period, the Transmission Owner Allocated Share determined as of the end of the applicable Billing Period shall be utilized.

ECC = ***Equipment Class Costs***, which shall be the total maintenance expenses incurred by Grid Assurance for the applicable Billing Period to maintain Inventoried Spares in the applicable Equipment Class.

ACC<sub>EC</sub> = ***Allocated Common Costs*** for the applicable Equipment Class, which shall be, for each discreet category of Common Subscriber Costs, the product of the total costs incurred by Grid Assurance for that category for the applicable Billing Period multiplied by the applicable Common Cost Allocation Factor; *provided, however*, that the total of all Allocated Common Costs for all Equipment Classes for any Billing Period shall equal the total Common Subscriber Costs for that Billing Period.

AEB<sub>EC</sub> = ***Allocated Equity Balance*** for the applicable Equipment Class, which shall be the product of the Total Equity Balance multiplied by the Equity Allocation Factor for that Equipment Class; *provided, however*, that the total of all Allocated Equity Balances for all Equipment Classes for any Billing Period shall equal the Total Equity Balance for that Billing Period.

TAR = ***Tax Adjusted Return***, which shall be the percentage derived by dividing the Return on Equity as of the end of the applicable Billing Period by the difference between one (1) less the Income Tax Rate as of the end of that Billing Period.

OC<sub>EC</sub> = ***Obsolescence Charge*** for the applicable Equipment Class, which shall apply in the event the sale price of an Inventoried Spare in that Equipment Class is sold by Grid Assurance for a price less than the Original Cost of that Inventoried Spare, in which case there will be an Obsolescence Charge for the applicable Billing Period equal to the difference between the Original Cost of the Inventoried Spare less its sale price. In the event Grid Assurance attempts, but is unable within a commercially reasonable period, to sell an Inventoried Spare, the Obsolescence Charge for that Inventoried Spare will be equal to its Original Cost plus the total expenses, if any, incurred by Grid Assurance to dispose of that Inventoried Spare. If Grid Assurance initiates any Discretionary Sale(s) of any surplus Inventoried Spare(s) from an Equipment Class pursuant to

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Section 4.2.6 of Part 1 following any termination of, or any reduction or elimination of a Nominated Quantity in, any Subscription Agreement, any revenues paid to Grid Assurance in respect of any Equipment Reduction Contribution (as defined in Schedule 6.4) or any Equipment Contribution (as defined in Schedule 13.3) for that Equipment Class shall be applied to offset any Obsolescence Charge resulting from such Discretionary Sale(s).

$SCA_{EC}$  = **Subscriber Credit Amount** for the applicable Equipment Class, which shall be the sum of any of the following revenues received by Grid Assurance during the applicable Billing Period: (a) any proceeds of sales received by Grid Assurance on the sale of any Inventoried Spare (net of taxes, fees and other costs and charges incurred in connection with such sale) to the extent such proceeds exceed the Original Cost of such spare; (b) the portion of any Reduction Liability representing any Sparing Service Fee Reduction ("SSFR" as described in Schedule 6.4) for the applicable Equipment Class; (c) the portion of any Termination Liability representing Sparing Service Fee Loss ("SSFL" as described in Schedule 13.3) for the applicable Equipment Class; and (d) revenues received by Grid Assurance pursuant to Section 4.2.3(b) or Section 4.2.4(b) of Part 1 and allocated to the applicable Equipment Class. The portion of any Subscriber Credit Amount described in clauses (b) and (c) above shall be applied ratably over the five (5) year period following payment of the Reduction Liability or the Termination Liability, as applicable.

The following capitalized terms, as used in this Schedule 5.1, shall have the meanings set forth below:

**Common Subscriber Costs:** The total of operating, maintenance and other expenses incurred by Grid Assurance net of Equipment Class Costs (ECC) and miscellaneous income (excluding income reflected in Subscriber Credit Amounts ( $SCA_{EC}$ )) for the applicable Billing Period. Common Subscriber Costs include labor and personnel costs, general and administrative expenses, insurance expenses, depreciation (determined in accordance with GAAP), taxes other than income taxes, Start-Up Costs and interest expense on debt. The amount of Common Subscriber Costs will be based on actual costs incurred through the end of the applicable Billing Period. Any corrections to the values included in the calculation of Common Subscriber Costs (whether discovered by Grid Assurance, a Subscriber Group Member, an audit or otherwise) will be applied (without interest) as a credit or debit to Common Subscriber Costs promptly after the discovery and verification of the error; *provided, however*, that no such corrections shall be made for errors discovered more than eighteen (18) months after the date of an invoice. Any revenues paid to Grid Assurance in respect of an Equipment Reduction Contribution (as defined in Schedule 6.4) or an Equipment Contribution (as defined in Schedule 13.3) and not required to be applied to offset an Obsolescence Charge resulting from a Discretionary Sale of any surplus Inventoried Spare(s) shall be applied to offset Common Subscriber Costs on a *pro-rata* basis.

**Common Cost Allocation Factor:** For each discreet category of Common Subscriber Costs, a fraction used to allocate such costs among all Equipment Classes based on the portion of such costs that are attributable to each Equipment Class, as determined by Grid Assurance in its reasonable judgment; *provided, however*, that the total of the Common Cost Allocation Factors for each category of Common Subscriber Costs shall, for all periods, equal one hundred percent (100%).

**Equity Allocation Factor:** With respect to an Equipment Class, a fraction, the numerator of which is the aggregate of the Original Cost of all Inventoried Spares in that Equipment Class as of the end of the applicable Billing Period and the denominator of which is the aggregate of the Original Cost of all Inventoried Spares in all Equipment Classes as of the end of that Billing Period.

**FERC:** The Federal Energy Regulatory Commission or its successor.

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**Income Tax Rate:** The sum of: (a) the highest United States federal corporate income tax rate in effect as of the end of the applicable Billing Period; plus (b) a weighted average of the highest state corporate income tax rates in effect as of the end of that Billing Period in the states in which the owners of Grid Assurance are legally domiciled for tax purposes.

**Return on Equity:** The simple average of the return on equity in the transmission formula rate currently on file at FERC for each Designated Transmission Owner that (a) is an Affiliate of a current owner of Grid Assurance and (b) has a transmission formula rate on file at FERC. For purposes of this calculation, the return on equity for a Designated Transmission Owner shall include FERC-approved adjustments (*e.g.*, adders for participation in a regional transmission organization) other than any such adjustments awarded only for specific transmission projects. The Return on Equity shall be calculated as of the first Fee Commencement Date for the calendar year during which the first Fee Commencement Date occurs, and then updated on January 1 of each calendar year thereafter for use in determining the Sparing Service Fee for that subsequent calendar year.

**Start-Up Costs:** All costs incurred by Grid Assurance prior to the date as of which Subscriber Group Members are obligated to commence payment of the Sparing Service Fee, including costs incurred in connection with the formation of Grid Assurance and a carrying charge applicable to the period between the time when costs were incurred and applicable Fee Commencement Dates. Start-Up Costs will be capitalized and amortized over a period of ten (10) years commencing as of the Fee Commencement Date for each Equipment Class. Up to 50% of Start-Up Costs incurred by Grid Assurance prior to the first Acceptance Date with any Subscriber Group Member will be excluded from Common Subscriber Costs for existing Subscriber Group Members as of such Acceptance Date, but shall be included in Common Subscriber Costs with respect to new Inventoried Spares added after such Acceptance Date, as reasonably determined by Grid Assurance on a non-discriminatory basis.

**Total Equity Balance:** The common equity balance of Grid Assurance as of the end of the applicable Billing Period, as determined in accordance with GAAP and reflected on the Grid Assurance balance sheet, which Total Equity Balance shall include paid in capital, retained earnings and any other capital other than debt.

**NOTES:**

1. Any values to be determined as of a specified date (*e.g.*, the end of a Billing Period) may, in the reasonable discretion of Grid Assurance, be pro-rated in order to avoid manifest unfairness.
2. For purposes of calculating the Allocated Common Costs during the period in which Start-Up Costs are being accrued, Common Cost Allocation Factors will be set as if the Fee Commencement Date had occurred for all Equipment Classes then contemplated to be formed. Once Start-Up Costs are no longer being accrued, there will be a true up for Allocated Common Costs based on the Common Cost Allocation Factors determined at such time by Grid Assurance.

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SUBSCRIPTION AGREEMENT**

**SCHEDULE 6.4**

**REDUCTION LIABILITY**

In the event the Agreement is amended to reduce a Nominated Quantity for any Equipment Class in which any Designated Transmission Owner is participating, the Reduction Liability shall be equal to the amount calculated based on the following formula, as applied to every Equipment Class for which the Nominated Quantity is reduced:

$$RL = \sum ERC + SSFR$$

Where

RL = ***Reduction Liability***

ERC = ***Equipment Reduction Contribution*** for the applicable Equipment Class, which shall be equal to the product of: (a) the Transmission Owner Allocated Share Reduction (as defined below) for that Equipment Class; multiplied by (b) the Total Equipment Cost (as defined below) for that Equipment Class.

SSFR = ***Sparing Service Fee Reduction*** for the applicable Equipment Class, which shall be equal to the difference between: (a) the Sparing Service Fee that would have been payable by Subscriber for that Equipment Class for the entire Fee Forecast Period (as defined below) if the Agreement had not been amended to reduce the Nominated Quantity in that Equipment Class; and (b) the Sparing Service Fee that will be payable by Subscriber for that Equipment Class for the entire Fee Forecast Period based on the reduced Nominated Quantity, in both cases as reasonably determined by Grid Assurance (and including any amortized or undeferred Start-Up Costs that extend beyond the Fee Forecast Period); *provided, however*, that in determining any Sparing Service Fee that would have been payable by Subscriber during the Fee Forecast Period, Grid Assurance shall utilize the assumptions contained in the most recent five (5) year budget forecast provided to Subscriber Group Members pursuant to Section 8.1(b) of Part 2, except that (i) costs and revenues associated with any projected sales of Inventoried Spares shall be disregarded, and (ii) projected costs, revenues and assumptions for the final year of the budget forecast shall be used for any portion of the Fee Forecast Period that is not covered by that budget forecast. For purposes of calculating SSFR, the differences between the Sparing Service Fee payable by Subscriber shall be determined on an annual basis and present valued to the date of payment of the Reduction Liability using a discount rate equal to the then-current Consumer Price Index for all urban consumers (as published by the U.S. Department of Labor, Bureau of Labor Statistics) applicable to the area in which in which the principal place of business of Grid Assurance is located.

The following capitalized terms, as used in this Schedule 6.4, shall have the meanings set forth below:

***Amendment Date***: The date as of which the Agreement is amended to reduce a Nominated Quantity.

***Fee Forecast Period***: With respect to any amendment of the Agreement to reduce the Nominated Quantity in any Equipment Class, the sixty (60) Billing Periods immediately subsequent to the Amendment Date.

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***Total Equipment Cost:*** With respect to each Equipment Class in which any Designated Transmission Owner is participating, the aggregate of the Original Cost of all Inventoried Spares in that Equipment Class (including Inventoried Spares on order but not yet delivered) immediately prior to the Amendment Date, as reasonably determined by Grid Assurance.

***Transmission Owner Allocated Share Reduction:*** With respect to each Equipment Class in which any Designated Transmission Owner is participating, the difference between: (a) the Transmission Owner Allocated Share for that Equipment Class immediately prior to the Amendment Date; and (b) the Transmission Owner Allocated Share for that Equipment Class immediately after the Amendment Date, as reasonably determined by Grid Assurance.

**NOTES:**

1. Once determined, the Reduction Liability shall not be reduced or offset for any reason, other than manifest error in the calculation thereof.

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**GRID ASSURANCE LLC  
SUBSCRIPTION AGREEMENT  
SCHEDULE 12  
NON-DISCLOSURE AGREEMENT**

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**GRID ASSURANCE LLC  
SUBSCRIPTION AGREEMENT**

**SCHEDULE 13.3**

**TERMINATION LIABILITY**

In the event the Agreement is terminated, the Termination Liability shall be equal to the amount calculated based on the following formula, as applied to every Equipment Class in which a Designated Transmission Owner was participating as of the Termination Date (as defined below)

$$TL = \sum EC + SSFL$$

Where

TL = **Termination Liability**

EC = **Equipment Contribution** for the applicable Equipment Class, which shall be equal to the product of: (a) the Transmission Owner Allocated Share Loss (as defined below) for that Equipment Class; multiplied by (b) the Total Equipment Cost (as defined below) for that Equipment Class.

SSFL = **Sparing Service Fee Loss** for the applicable Equipment Class, which shall be equal to the Sparing Service Fee that would have been payable by Subscriber for that Equipment Class for the entire Fee Forecast Period (as defined below) if the Agreement had not been terminated, as reasonably determined by Grid Assurance (and including any amortized or undeferred Start-Up Costs that extend beyond the Fee Forecast Period); *provided, however*, that in determining the Sparing Service Fee that would have been payable by Subscriber during the Fee Forecast Period, Grid Assurance shall utilize the assumptions contained in the most recent five (5) year budget forecast provided to Subscriber Group Members pursuant to Section 8.1(b) of Part 2, except that (i) costs and revenues associated with any projected sales of Inventoried Spares shall be disregarded, and (ii) projected costs, revenues and assumptions for the final year of the budget forecast shall be used for any portion of the Fee Forecast Period that is not covered by that budget forecast. For purposes of calculating SSFL, the Sparing Service Fee payable by Subscriber shall be determined on an annual basis and present valued to the date of payment of the Termination Liability using a discount rate equal to the then-current Consumer Price Index for all urban consumers (as published by the U.S. Department of Labor, Bureau of Labor Statistics) applicable to the area in which in which the principal place of business of Grid Assurance is located.

The following capitalized terms, as used in this Schedule 13.3, shall have the meanings set forth below:

**Fee Forecast Period:** The sixty (60) Billing Periods immediately subsequent to the Termination Date.

**Termination Date:** The date as of which the Agreement is or will be terminated, as reasonably determined by Grid Assurance.

**Total Equipment Cost:** With respect to an Equipment Class, the aggregate of the Original Cost of all Inventoried Spares in that Equipment Class (including Inventoried Spares on order but not yet delivered) as of the Termination Date, as reasonably determined by Grid Assurance.

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***Transmission Owner Allocated Share Loss:*** With respect to an Equipment Class, the Transmission Owner Allocated Share for that Equipment Class as of the Termination Date.

**NOTES:**

1. Once determined, the Termination Liability shall not be reduced or offset for any reason, other than manifest error in the calculation thereof.



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**GRID ASSURANCE LLC  
SUBSCRIPTION AGREEMENT**

**SCHEDULE 17**

**NOTICE INFORMATION**

Grid Assurance

Grid Assurance LLC  
1200 Main Street  
Kansas City, MO 64105  
Attention: Michael L. Deggendorf, Chief Executive Officer  
Email: Michael.Deggendorf@kcpl.com

with a copy to:

Grid Assurance LLC  
c/o American Electric Power  
One Riverside Plaza  
Columbus, OH 43215  
Attention: John W. Seidensticker, Secretary  
E-mail: jwseidensticker@aep.com

Subscriber

American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, Ohio 43215  
Attention: Antonio P. Smyth, Senior Vice President  
Email: apsmyth@aep.com

with a copy to:

American Electric Power Service Corporation  
1 Riverside Plaza  
Columbus, Ohio 43215  
Attention: John W. Seidensticker  
Email: jwseidensticker@aep.com



**GRID ASSURANCE LLC  
REGULATORY CONFIRMATION NOTICE**

This Regulatory Confirmation Notice is issued pursuant to Section 3.3.5 of the Amended and Restated Subscription Agreement executed on April 9, 2019 (the "Agreement"). All capitalized but undefined terms in this Notice shall have the meanings described in the Agreement.

Pursuant to Section 3.3.5 of the Agreement, American Electric Power Service Corporation, solely in its capacity as agent on behalf of Subscriber, hereby informs Grid Assurance that all Required Regulatory Approvals have been obtained, or alternatively, there are no Required Regulatory Approvals, but in either case the condition to Subscriber performance described in Section 3.1(b) of the Agreement is satisfied.

AMERICAN ELECTRIC POWER SERVICE CORPORATION solely in its capacity as agent on behalf of each of

PUBLIC SERVICE COMPANY OF OKLAHOMA

OHIO POWER COMPANY

AEP TEXAS INC.

AEP OHIO TRANSMISSION COMPANY, INC.

AEP OKLAHOMA TRANSMISSION COMPANY, INC.

APPALACHIAN POWER COMPANY

AEP APPALACHIAN TRANSMISSION COMPANY, INC.

INDIANA MICHIGAN POWER COMPANY

AEP INDIANA MICHIGAN TRANSMISSION COMPANY, INC.

KINGSPORT POWER COMPANY

KENTUCKY POWER COMPANY


AEP KENTUCKY TRANSMISSION COMPANY, INC.

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SOUTHWESTERN ELECTRIC POWER COMPANY

WHEELING POWER COMPANY

AEP WEST VIRGINIA TRANSMISSION COMPANY, INC.

By:   
Daniel J. Rogier  
Vice President – Transmission Asset Strategy & Policy

ELECTRIC TRANSMISSION TEXAS, LLC

By:   
Kip M. Fox  
President

Date: 4/9/2019

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## GRID ASSURANCE LLC FEE CONFIRMATION NOTICE

Reference is made to that certain Amended and Restated Subscription Agreement dated as of April 9, 2019 (the "*Agreement*") between Grid Assurance LLC ("*Grid Assurance*") and American Electric Power Service Corporation solely in its capacity as agent on behalf of Subscriber. Capitalized terms used but not defined in this Fee Confirmation Notice shall have the meanings ascribed to such terms in the Agreement.

Subscriber hereby confirms and serves notice to Grid Assurance that:

1. as of the date hereof, Subscriber is in receipt of a valid Fee Estimate Certification that covers every Equipment Class in which each Designated Transmission Owner is participating, as such Equipment Classes are designated on Schedule 2.1 of the Agreement (which Fee Estimate Certification is attached hereto as Attachment 1);
2. Subscriber has not received any Fee Estimate Certification after the Fee Estimate Certification attached hereto as Attachment 1;
3. the estimated Sparing Service Fee set forth in the Fee Estimate Certification attached hereto as Attachment 1 is acceptable; and
4. this Fee Confirmation Notice is irrevocable by Subscriber but shall automatically be rendered invalid if, after the date hereof, Grid Assurance delivers a new Fee Estimate Certification to Subscriber.

AMERICAN ELECTRIC POWER SERVICE CORPORATION solely in its capacity as agent on behalf of each of

PUBLIC SERVICE COMPANY OF OKLAHOMA

OHIO POWER COMPANY

AEP TEXAS INC.

AEP OHIO TRANSMISSION COMPANY, INC.

AEP OKLAHOMA TRANSMISSION COMPANY, INC.

APPALACHIAN POWER COMPANY

AEP APPALACHIAN TRANSMISSION COMPANY, INC.

INDIANA MICHIGAN POWER COMPANY

AEP INDIANA MICHIGAN TRANSMISSION COMPANY, INC.

KINGSPORT POWER COMPANY

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KENTUCKY POWER COMPANY  
AEP KENTUCKY TRANSMISSION COMPANY, INC.  
SOUTHWESTERN ELECTRIC POWER COMPANY  
WHEELING POWER COMPANY  
AEP WEST VIRGINIA TRANSMISSION COMPANY, INC.

By:   
Daniel Rogier  
Vice President – Transmission Asset Strategy & Policy

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ELECTRIC TRANSMISSION TEXAS, LLC

By:   
Kip M. Fox  
President

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*Grid Assurance LLC*

**GRID ASSURANCE LLC  
AMENDED AND RESTATED SUBSCRIPTION AGREEMENT**

**AMENDED AND RESTATED MULTI-SUBSCRIBER ADDENDUM**

This Amended and Restated Multi-Subscriber Addendum (this “*Addendum*”) is being executed as an addendum to, and a part of, that certain Amended and Restated Subscription Agreement dated April 2, 2019 (and amends and restates in its entirety that certain multi-subscriber addendum among the parties hereto dated February 20, 2017), among Grid Assurance and each of the other signatories hereto and thereto (each such other signatory, a “*Subscriber Party*” and collectively, the “*Subscriber Parties*”). This Addendum shall supplement and, as applicable, modify the other terms and conditions set forth in the Agreement; *provided, however*, that: (a) except to the extent expressly modified by this Addendum, the other terms and conditions set forth in the Agreement shall remain applicable; and (b) in the event of a conflict between the terms and conditions of this Addendum and the other terms and conditions set forth in the Agreement, the terms and conditions of this Addendum shall govern.

1. Defined Terms.

- (a) Capitalized terms used but not otherwise defined in this Addendum shall have the meanings ascribed to them in Part 1 of the Agreement.
- (b) The following capitalized terms used in this Addendum shall have the meanings set forth below or in the provisions of this Addendum referenced below:

*Addendum*: The preamble hereto.

*Amendment Notice*: A notice delivered by the Subscriber Party Nominee to Grid Assurance pursuant to, and in accordance with, Section 6 requesting to amend the Agreement and this Addendum as permitted pursuant to this Addendum.

*Class Allocated Share*: Section 5(b).

*Contract Allocated Share*: Section 5(a).

*Equipment Class Liability*: Any cost or liability arising in connection with the Agreement that is specifically attributable to the Designated Transmission Owners participating in an Equipment Class, and only such Designated Transmission Owners, based on their participation in that Equipment Class.

*New Subscriber Party*: Any Person that becomes a Subscriber Party as a result of an amendment to the Agreement pursuant to Section 6; *provided, however*, that if such amendment is executed by a Person in its capacity as an agent, the New Subscriber Party shall be the principal of that Person.

*Permissible NQ Reduction Amount*: With respect to any Equipment Class for which a Nominated Quantity is reduced by an amendment of the Agreement, the

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product (rounded down to the nearest whole number) of: (i) the aggregate Class Allocated Share(s) of the Removed Subscriber Party(ies) that participated in that Equipment Class immediately prior to the effective date of that amendment; multiplied by (ii) the Nominated Quantity for that Equipment Class immediately prior to the effective date of that amendment.

***Remaining Subscriber Party:*** With respect to any amendment of the Agreement, each Person that will be a Subscriber Party immediately following the effective date of that amendment (including any New Subscriber Party).

***Removed Subscriber Party:*** With respect to any amendment of the Agreement, each Person that was a Subscriber Party immediately prior to the effective date of that amendment but will no longer be a party to the Agreement immediately following the effective date of that amendment.

***Subscriber Party and Subscriber Parties:*** The preamble hereto; *provided, however,* that if the Agreement and/or this Addendum is executed by a Person in its capacity as an agent, the Subscriber Party shall be the principal of that Person.

***Subscriber Party Liability:*** Any cost or liability arising in connection with the Agreement that is solely and exclusively attributable to the acts or omissions of a Subscriber Party, including a Subscriber Party's liability to pay its Class Allocated Share of Sparing Service Fees.

***Subscriber Party Nominee:*** The Person identified on Attachment A as the Subscriber Party Nominee.

2. Designations.

- (a) The term "Agreement" shall be deemed to refer to the Agreement (as it may be amended from time to time) as supplemented by this Addendum (as it may be amended from time to time).
- (b) The term "Subscriber" shall be deemed to refer to all Subscriber Parties, collectively.
- (c) The term "Party," to the extent applicable to Subscriber, shall be deemed to refer to all Subscriber Parties, collectively.
- (d) Except to the extent expressly provided otherwise in this Addendum, all Subscriber Parties, collectively, shall be deemed to be a single Subscriber, a single Party and a single Subscriber Group Member.
- (e) Each Subscriber Party shall be deemed to be a Designated Transmission Owner participating in each Equipment Class for which it is identified as a Designated Transmission Owner on Schedule 2.1 and a Subscriber Party on Attachment A.

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3. Designation of Subscriber Party Nominee. Each Subscriber Party hereby authorizes and empowers the Subscriber Party Nominee to be its legal representative and agent for all purposes related to the Agreement, including with respect to the execution and delivery of amendments thereto and the issuance and receipt of notices, including Fee Estimate Certifications, Fee Confirmation Notices and Regulatory Confirmation Notices. The Subscriber Parties may, from time to time, change the Subscriber Party Nominee by providing notice to Grid Assurance, which notice shall: (a) unequivocally authorize and empower the new Subscriber Party Nominee to be the legal representative and agent of the Subscriber Parties for all purposes related to the Agreement; and (b) be executed by each Subscriber Party.

4. Nominated Quantities. For each Equipment Class in which a Designated Transmission Owner participates (as set forth on Schedule 2.1 of the Agreement and Attachment A), that Designated Transmission Owner shall be deemed to have designated the total Nominated Quantity for that Equipment Class; *provided, however*, that notwithstanding Section 4.1 of Part 2 of the Agreement, if a Qualifying Event affects multiple Designated Transmission Owners participating in any Equipment Class, the maximum number of Inventoried Spares that all such Designated Transmission Owners, collectively, shall have the right to purchase from that Equipment Class shall be equal to the lesser of: (a) the Nominated Quantity for that Equipment Class; (b) the number of units of comparable equipment on the affected Designated Transmission Owners' electric transmission systems that were damaged, destroyed or impaired by that Qualifying Event; (c) the number of Inventoried Spares in that Equipment Class at that time; and (d) the number of Inventoried Spares available for sale to a single Transmission Group Member having the characteristics of all Designated Transmission Owners participating in that Equipment Class that were affected by the Qualifying Event (as reasonably determined by Grid Assurance) based on the Deployment Protocols.

5. Allocation of Costs and Liabilities.

(a) Each Subscriber Party shall be severally and not jointly liable for payment of a portion (such portion, as designated on Attachment A, the "**Contract Allocated Share**") of the Sparing Service Fee, any Termination Liability and any other cost or liability owed by Subscriber pursuant to the Agreement other than any Equipment Class Liability or Subscriber Party Liability; *provided, however*, that the sum of all Contract Allocated Shares of all Subscriber Parties shall, at all times, equal one hundred percent (100%).

(b) Each Subscriber Party shall be severally and not jointly liable for payment of a portion (such portion, as designated on Attachment A, the "**Class Allocated Share**") of any Equipment Class Liability; *provided, however*, that the sum of all Class Allocated Shares for all Designated Transmission Owners participating in each Equipment Class specified in this Addendum shall, at all times, equal one hundred percent (100%).



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- (c) A Subscriber Party shall be solely liable for its Subscriber Party Liabilities.
  - (d) In the event of a good faith dispute among the Subscriber Parties as to whether any cost or liability should be characterized as an Equipment Class Liability, a Subscriber Party Liability or a general liability subject to payment in accordance with Contract Allocated Shares, pending resolution of that dispute such cost or liability shall be treated in the manner determined by Grid Assurance, in its reasonable judgment.
6. Changes to Subscriber Parties and Nominated Quantities.
- (a) In addition to the rights granted pursuant to Article 6 of Part 2 of the Agreement, the Subscriber Parties shall have the right to amend the Agreement to add or remove Subscriber Parties and/or modify Class Allocated Shares and/or Contract Allocated Shares, in each case in accordance with this Section 6; *provided, however,* that any amendment of the Agreement to add any additional Equipment Class and/or to increase or decrease any Nominated Quantity in any Equipment Class shall be subject to: (i) Section 6.3 and Section 6.4 of Part 2 of the Agreement, as applicable; and (ii) Section 6(c).
  - (b) In order to amend the Agreement pursuant to this Section 6, the Subscriber Party Nominee shall deliver to Grid Assurance: (i) an Amendment Notice that identifies (1) each Removed Subscriber Party and each Remaining Subscriber Party, (2) the Equipment Class(es) in which any of the Designated Transmission Owners that are Remaining Subscriber Parties will participate, (3) subject to the requirements set forth in Section 5(a), the Contract Allocated Shares of all Remaining Subscriber Parties, (4) subject to the requirements set forth in Section 5(b), the Class Allocated Shares of the Remaining Subscriber Parties in each such Equipment Class, and (5) if there are any New Subscriber Parties, evidence that each such New Subscriber Party satisfies the credit requirements set forth in Section 10 of Part 2 of the Agreement; and (ii) subject to Section 7(b), in the event any amendment pursuant to this Section 6 will result in one (1) or more Removed Subscriber Parties, a release (in form and substance reasonable acceptable to Grid Assurance) executed by each such Removed Subscriber Party of any Claims arising out of, or related to, such amendment.
  - (c) If, in connection with a transaction described in Section 16.4.1 of Part 2: (i) the Agreement is amended to remove a Subscriber Party and reduce the Nominated Quantity for any Equipment Class in which such Removed Subscriber participated as a Designated Transmission Owner immediately prior to the effective date of that amendment; and (ii) the Third Party Transmission Purchaser and its Affiliates do not enter one (1) or more new Subscription Agreements (or

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amend one (1) or more existing Subscription Agreements) pursuant to which, for each such Equipment Class, the amount of the reduction in such Nominated Quantity pursuant to the amended Agreement is not fully included in any new, or added to any amended, Subscription Agreement(s) executed by such Third Party Transmission Purchaser and its Affiliates, for each such Equipment Class (1) the Removed Subscriber Party (or, if there are multiple Removed Subscriber Parties, such Removed Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of the amendment) shall be solely liable for the Reduction Liability calculated based on the difference between (x) the Permissible NQ Reduction Amount, and (y) the difference between the Nominated Quantity immediately prior to the effective date of the amended Agreement and the aggregate Nominated Quantities of the Third Party Transmission Purchaser and its Affiliates under any new or amended Subscription Agreements, and (2) the Remaining Subscriber Party that participated as a Designated Transmission Owner in that Equipment Class immediately prior to the effective date of the amended Agreement (or, if there are multiple such Remaining Subscriber Parties, such Remaining Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of the amended Agreement) shall be solely liable for any additional Reduction Liability owed pursuant to Section 16.4.1 of Part 2.

- (d) If, other than in connection with a transaction described in Section 16.4.1 of Part 2, the Agreement is amended (including pursuant to Section 7) to remove a Subscriber Party and reduce the Nominated Quantity for any Equipment Class in which such Removed Party participated as a Designated Transmission Owner immediately prior to the effective date of that amendment: (i) for any such Equipment Class for which such reduction is less than or equal to the Permissible NQ Reduction Amount, the Removed Subscriber Party (or, if there are multiple Removed Subscriber Parties, such Removed Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of that amendment) shall be solely liable for the Reduction Liability resulting from such reduction; and (ii) for any Equipment Class for which such reduction is greater than the Permissible NQ Reduction Amount (1) the Removed Subscriber Party (or, if there are multiple Removed Subscriber Parties, such Removed Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of that amendment) shall be solely liable for the portion of the Reduction Liability resulting from such reduction up to the Permissible NQ Reduction Amount, and (2) the Remaining Subscriber Party that participated as a Designated Transmission Owner in that Equipment Class immediately prior to the effective date of that amendment (or, if there are multiple such Remaining Subscriber Parties, such Remaining Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of that amendment) shall be solely liable

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for the portion of the Reduction Liability resulting from such reduction to the extent it exceeds the Permissible NQ Reduction Amount.

- (e) Promptly upon receipt of an Amendment Notice pursuant to Section 6(b), Grid Assurance shall prepare and deliver to the Subscriber Party Nominee an amended Agreement, including a revised Schedule 2.1 to the Agreement and a revised Attachment A, in each case reflecting the changes proposed in such Amendment Notice.
- (f) Upon any amendment of the Agreement that results in one (1) or more Removed Subscriber Parties (including an amendment to remove a defaulting Subscriber Party pursuant to Section 7), each such Removed Subscriber Party shall remain solely liable to Grid Assurance for all of its Subscriber Party Liabilities as of the effective date of such amendment, including its Contract Allocated Share of all Sparing Service Fees owed pursuant to the Agreement and any damages owed as a result of any other breach of the Agreement or Event of Default by that Removed Subscriber Party.

7. Cure for Segregable Defaults.

- (a) Upon an Event of Default that is solely attributable to the acts or omissions of one (1) or more (but less than all) Subscriber Parties, the non-defaulting Subscriber Party(ies) shall not be subject to any liability based on such Event of Default if they amend the Agreement pursuant to Section 6 to remove each defaulting Subscriber Party as a Party thereto; *provided, however*, that: (i) the Subscriber Party Nominee shall deliver an Amendment Notice to remove the defaulting Subscriber Party(ies) no later than thirty (30) days after notice of such Event of Default; and (ii) the amendment to remove the defaulting Subscriber Party(ies) must be executed and delivered to Grid Assurance no later than ten (10) days after delivery thereof to the Subscriber Party Nominee. If, following an Event of Default that is solely attributable to the acts or omissions of one (1) or more (but less than all) Subscriber Parties, the non-defaulting Subscriber Parties fail to deliver an Amendment Notice or execute and deliver an amendment to the Agreement to remove the defaulting Subscriber Party(ies) in accordance with this Section 7(a), Grid Assurance shall be entitled to its remedies in accordance with Article 14 of Part 2 of the Agreement, including termination of the Agreement (in which case the Agreement shall be deemed to have been terminated due to an Event of Default by Subscriber and each of the Subscriber Parties shall be solely liable for the resulting Termination Liability in accordance with their Contract Allocated Shares).
- (b) If the Agreement is amended to remove all defaulting Subscriber Party(ies) pursuant to Section 7(a), the Remaining Subscriber Parties may, in lieu of

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providing the release(s) required pursuant to clause (ii) of Section 6(b), agree (pursuant to an agreement in form and substance reasonable acceptable to Grid Assurance) to indemnify, defend and hold harmless Grid Assurance's Indemnified Persons (to the extent based on the Contract Allocated Shares of such Remaining Subscriber Parties as in effect immediately following the effective date of such amendment) from and against all Claims by any Removed Subscriber Parties or their Affiliates arising out of, or related to, such amendment, including any such Claims alleging wrongful termination of the Agreement; provided, however, that the Remaining Subscriber Party(ies) indemnity obligations shall not apply to any Claims to the extent such Claims are found (by a court of competent jurisdiction by a final non-appealable judgment) to have been caused by the negligence or willful misconduct of any of the Grid Assurance Indemnified Persons.

8. Termination. The Agreement may only be terminated by the Subscriber Parties upon issuance of a Termination Notice by the Subscriber Party Nominee on behalf of all Subscriber Parties. Any Termination Notice delivered by any Subscriber Party(ies) other than the Subscriber Party Nominee or any such notice purporting to terminate any part (but not all) of the Agreement shall be null and void; *provided, however*, that nothing in this Section 8 shall limit the Subscriber Parties' right to amend the Agreement to remove Subscriber Parties.

9. Invoicing.

- (a) Any invoice required or authorized to be issued or delivered by Grid Assurance to any or all Subscriber Parties shall be deemed to have been issued or delivered upon issuance or delivery thereof to the Subscriber Party Nominee.
- (b) Grid Assurance shall issue a single invoice for Sparing Service Fees showing amounts owed by each Subscriber Party based on their Contract Allocated Shares.
- (c) Grid Assurance shall issue a single invoice for Equipment Class Liabilities showing amounts owed by each Subscriber Party participating as a Designated Transmission Owner participating in the applicable Equipment Class based on the Class Allocated Shares of such Subscriber Parties.

10. Credit Support. Each Subscriber Party shall be obligated to independently satisfy the credit requirements set forth in Article 10 of Part 2 of the Agreement.

11. Committees. All Subscriber Parties that are Designated Transmission Owners participating in any Equipment Class shall have the right to designate one (1) individual to serve on the Equipment Committee for that Equipment Class.

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12. Interpretation. Section 21.1 of Part 2 of the Agreement shall apply to this Addendum, with the exception that any references in this Addendum to Sections or Attachments refer to Sections of, or Attachments to, this Addendum unless expressly provided otherwise.
13. Representations, Warranties and Acknowledgements. Each Subscriber Party is hereby deemed to have made each of the representations, warranties and acknowledgements set forth in Article 15 of Part 2 of the Agreement.
14. Further Assurances. Each Subscriber Party shall independently be obligated and bound by the requirements set forth in Section 21.4 of Part 2 of the Agreement.
15. Counterparts. Grid Assurance and the Subscriber Parties may execute and deliver this Addendum in counterparts, all of which shall be deemed originals. Signatures delivered by facsimile or other electronic means shall be as valid as original ones.
16. Authorized Agent. American Electric Power Service Corporation is wholly authorized by Subscriber to perform any action, as agent and representative of Subscriber, included in, related to, or necessary to carry out the provisions of this Agreement, including delivery of any purchase order, notice, schedule or amendment issued hereunder. Notwithstanding American Electric Power Service Corporation's authority described herein, American Electric Power Service Corporation is not, nor shall it be construed to be, a party to the Agreement or to any purchase order, notice, schedule or amendment governed thereby, and is therefore not liable for any obligations of Subscriber hereunder.


*[Signature Page Follows]*

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IN WITNESS WHEREOF, Grid Assurance and the Subscriber Parties have caused this Addendum to be duly executed as of the Execution Date.

GRID ASSURANCE LLC

By:   
Michael L. Deggendorf  
Chief Executive Officer

DocuSign Envelope ID: 08175B22-6F9A-4493-8949-0DCE50F0BF62

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IN WITNESS WHEREOF, Grid Assurance and the Subscriber Parties have caused this Addendum to be duly executed as of the Execution Date.

AMERICAN ELECTRIC POWER SERVICE CORPORATION solely in its capacity as agent on behalf of each of

AEP APPALACHIAN TRANSMISSION COMPANY, INC.

AEP INDIANA MICHIGAN TRANSMISSION COMPANY, INC.

AEP KENTUCKY TRANSMISSION COMPANY, INC.

AEP OHIO TRANSMISSION COMPANY, INC.

AEP OKLAHOMA TRANSMISSION COMPANY, INC.

AEP TEXAS INC.

AEP WEST VIRGINIA TRANSMISSION COMPANY, INC.

APPALACHIAN POWER COMPANY

INDIANA MICHIGAN POWER COMPANY

KENTUCKY POWER COMPANY

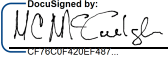
KINGSPORT POWER COMPANY

OHIO POWER COMPANY

PUBLIC SERVICE COMPANY OF OKLAHOMA

SOUTHWESTERN ELECTRIC POWER COMPANY

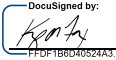
WHEELING POWER COMPANY

By:   
Mark C McCullough  
EVP Transmission

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ELECTRIC TRANSMISSION TEXAS, LLC

By:  \_\_\_\_\_  
Kip M. Fox  
President



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**GRID ASSURANCE LLC  
 SUBSCRIPTION AGREEMENT  
 MULTI-SUBSCRIBER ADDENDUM**

**ATTACHMENT A**  
 (as of April 2, 2019)

**Subscriber Party Nominee**

American Electric Power Service Corporation  
 One Riverside Plaza  
 Columbus, OH 43215  
 Attention: Antonio P. Smyth  
 Email: apsmyth@aep.com

**Class Allocated Shares**

<b>Equipment Class*</b>	<b>Subscriber Parties</b>	<b>Nominated Quantity*</b>	<b>Class Allocated Share</b>
Transformer – H345-L138	AEP Appalachian Transmission Company, Inc.	5	0
	AEP Indiana Michigan Transmission Company, Inc.		2.817%
	AEP Kentucky Transmission Company, Inc.		0
	AEP Ohio Transmission Company, Inc.		14.789%
	AEP Oklahoma Transmission Company, Inc.		3.521%
	AEP Texas Inc.		14.085%
	AEP West Virginia Transmission Company, Inc.		2.817%
	Appalachian Power Company		9.155%
	Electric Transmission Texas, LLC		2.817%
	Indiana Michigan Power Company		10.563%
	Kentucky Power Company		0.704%
	Kingsport Power Company		0
	Ohio Power Company		14.085%
	Public Service Company Of Oklahoma		10.563%
	Southwestern Electric Power Company		14.085%
Wheeling Power Company	0		
	<b>Total</b>		<b>100.0%</b>
Circuit Breaker – CB-345	AEP Appalachian Transmission Company, Inc.	15	0
	AEP Indiana Michigan Transmission Company, Inc.		8.691%

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<b>Equipment Class*</b>	<b>Subscriber Parties</b>	<b>Nominated Quantity*</b>	<b>Class Allocated Share</b>
	AEP Kentucky Transmission Company, Inc.		0.564%
	AEP Ohio Transmission Company, Inc.		14.560%
	AEP Oklahoma Transmission Company, Inc.		3.386%
	AEP Texas Inc.		8.691%
	AEP West Virginia Transmission Company, Inc.		3.837%
	Appalachian Power Company		2.596%
	Electric Transmission Texas, LLC		21.783%
	Indiana Michigan Power Company		10.271%
	Kentucky Power Company		0.677%
	Kingsport Power Company		0
	Ohio Power Company		10.609%
	Public Service Company Of Oklahoma		4.628%
	Southwestern Electric Power Company		9.707%
	Wheeling Power Company		0
	<b>Total</b>	<b>100.0%</b>	
Circuit Breaker – CB-138	AEP Appalachian Transmission Company, Inc.	20	0.186%
	AEP Indiana Michigan Transmission Company, Inc.		4.017%
	AEP Kentucky Transmission Company, Inc.		0.331%
	AEP Ohio Transmission Company, Inc.		10.621%
	AEP Oklahoma Transmission Company, Inc.		1.201%
	AEP Texas Inc.		22.961%
	AEP West Virginia Transmission Company, Inc.		2.070%
	Appalachian Power Company		12.692%
	Electric Transmission Texas, LLC		3.727%
	Indiana Michigan Power Company		5.673%
	Kentucky Power Company		1.325%
	Kingsport Power Company		0.455%
	Ohio Power Company		15.549%
	Public Service Company Of Oklahoma		11.449%
	Southwestern Electric Power Company		7.039%
Wheeling Power Company	0.704%		
	<b>Total</b>	<b>100.0%</b>	

\* Equipment Classes and Nominated Quantities must coincide with those set forth on Schedule 2.1.

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### Contract Allocated Shares

Subscriber Parties	Contract Allocated Share
AEP Appalachian Transmission Company, Inc.	0.028%
AEP Indiana Michigan Transmission Company, Inc.	4.184%
AEP Kentucky Transmission Company, Inc.	0.164%
AEP Ohio Transmission Company, Inc.	14.111%
AEP Oklahoma Transmission Company, Inc.	3.142%
AEP Texas Inc.	14.342%
AEP West Virginia Transmission Company, Inc.	2.910%
Appalachian Power Company	8.368%
Electric Transmission Texas, LLC	6.782%
Indiana Michigan Power Company	9.763%
Kentucky Power Company	0.793%
Kingsport Power Company	0.069%
Ohio Power Company	13.605%
Public Service Company Of Oklahoma	9.500%
Southwestern Electric Power Company	12.133%
Wheeling Power Company	0.107%
Total	100.0%

\*\* The Subscriber Parties have advised Grid Assurance that it is their intention to amend the Agreement pursuant to Section 6.1 of Part 2 of the Agreement and Section 6 to (i) add one (1) or more Affiliates of the Subscriber Parties (each, an “**Intended Subscriber Party**” and collectively, the “**Intended Subscriber Parties**”) as Designated Transmission Owners and Subscriber Parties, and (ii) modify the Contract Allocated Shares and the Equipment Allocated Shares so that, after such amendment, one hundred percent (100%) of all Contract Allocated Shares and one hundred percent of the Equipment Allocated Shares for all designated Equipment Classes will be fully subscribed by the Remaining Subscriber Parties. Accordingly, though none of the Intended Subscriber Parties is a party to the Agreement or has any rights, obligations or liabilities pursuant thereto prior to any such amendment, Grid Assurance and the Subscriber Parties agree that:

- (a) the definition of “Required Regulatory Approval” shall be deemed to include all permits, licenses, authorizations, consents, decrees, waivers, approvals, exemptions from, filings with or notices to, Governmental Authorities required to be obtained by, or issued to, any Intended Subscriber Parties;
- (b) the Subscriber Parties shall provide notice to Grid Assurance pursuant to Section 3.3.3 and Section 3.3.4 of Part 2 of the Agreement with respect to (i) the status of the Intended Subscriber Parties’ efforts to obtain Required Regulatory Approvals, and (ii) any determination by an Intended Subscriber Party that a Required Regulatory Approval will not be obtained by such Intended Subscriber Party or, if obtained,

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would be subject to conditions that such Intended Subscriber Party deems unacceptable;

- (c) notwithstanding Section 3.3.5 of Part 2 of the Agreement, the Subscriber Parties shall not be permitted to provide Grid Assurance with a Fee Confirmation Notice until such time as the Agreement is amended so that so that one hundred percent (100%) of all Contract Allocated Shares and one hundred percent of the Equipment Allocated Shares for all designated Equipment Classes are fully subscribed by Persons that are Subscriber Parties; and
- (d) notwithstanding Section 3.4 of Part 2 of the Agreement, Grid Assurance shall have no obligation to execute or deliver an Acceptance Notice until such time as the Agreement is amended so that so that one hundred percent (100%) of all Contract Allocated Shares and one hundred percent of the Equipment Allocated Shares for all designated Equipment Classes are fully subscribed by Persons that are Subscriber Parties.

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**GRID ASSURANCE LLC  
AMENDED AND RESTATED SUBSCRIPTION AGREEMENT**

**AMENDED AND RESTATED MULTI-SUBSCRIBER ADDENDUM**

This Amended and Restated Multi-Subscriber Addendum (this “*Addendum*”) is being executed as an addendum to, and a part of, that certain Amended and Restated Subscription Agreement dated April 2, 2019 (and amends and restates in its entirety that certain multi-subscriber addendum among the parties hereto dated February 20, 2017), among Grid Assurance and each of the other signatories hereto and thereto (each such other signatory, a “*Subscriber Party*” and collectively, the “*Subscriber Parties*”). This Addendum shall supplement and, as applicable, modify the other terms and conditions set forth in the Agreement; *provided, however*, that: (a) except to the extent expressly modified by this Addendum, the other terms and conditions set forth in the Agreement shall remain applicable; and (b) in the event of a conflict between the terms and conditions of this Addendum and the other terms and conditions set forth in the Agreement, the terms and conditions of this Addendum shall govern.

1. Defined Terms.

- (a) Capitalized terms used but not otherwise defined in this Addendum shall have the meanings ascribed to them in Part 1 of the Agreement.
- (b) The following capitalized terms used in this Addendum shall have the meanings set forth below or in the provisions of this Addendum referenced below:

***Addendum***: The preamble hereto.

***Amendment Notice***: A notice delivered by the Subscriber Party Nominee to Grid Assurance pursuant to, and in accordance with, Section 6 requesting to amend the Agreement and this Addendum as permitted pursuant to this Addendum.

***Class Allocated Share***: Section 5(b).

***Contract Allocated Share***: Section 5(a).

***Equipment Class Liability***: Any cost or liability arising in connection with the Agreement that is specifically attributable to the Designated Transmission Owners participating in an Equipment Class, and only such Designated Transmission Owners, based on their participation in that Equipment Class.

***New Subscriber Party***: Any Person that becomes a Subscriber Party as a result of an amendment to the Agreement pursuant to Section 6; *provided, however*, that if such amendment is executed by a Person in its capacity as an agent, the New Subscriber Party shall be the principal of that Person.

***Permissible NQ Reduction Amount***: With respect to any Equipment Class for which a Nominated Quantity is reduced by an amendment of the Agreement, the

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product (rounded down to the nearest whole number) of: (i) the aggregate Class Allocated Share(s) of the Removed Subscriber Party(ies) that participated in that Equipment Class immediately prior to the effective date of that amendment; multiplied by (ii) the Nominated Quantity for that Equipment Class immediately prior to the effective date of that amendment.

***Remaining Subscriber Party:*** With respect to any amendment of the Agreement, each Person that will be a Subscriber Party immediately following the effective date of that amendment (including any New Subscriber Party).

***Removed Subscriber Party:*** With respect to any amendment of the Agreement, each Person that was a Subscriber Party immediately prior to the effective date of that amendment but will no longer be a party to the Agreement immediately following the effective date of that amendment.

***Subscriber Party and Subscriber Parties:*** The preamble hereto; *provided, however,* that if the Agreement and/or this Addendum is executed by a Person in its capacity as an agent, the Subscriber Party shall be the principal of that Person.

***Subscriber Party Liability:*** Any cost or liability arising in connection with the Agreement that is solely and exclusively attributable to the acts or omissions of a Subscriber Party, including a Subscriber Party's liability to pay its Class Allocated Share of Sparing Service Fees.

***Subscriber Party Nominee:*** The Person identified on Attachment A as the Subscriber Party Nominee.

2. Designations.

- (a) The term "Agreement" shall be deemed to refer to the Agreement (as it may be amended from time to time) as supplemented by this Addendum (as it may be amended from time to time).
- (b) The term "Subscriber" shall be deemed to refer to all Subscriber Parties, collectively.
- (c) The term "Party," to the extent applicable to Subscriber, shall be deemed to refer to all Subscriber Parties, collectively.
- (d) Except to the extent expressly provided otherwise in this Addendum, all Subscriber Parties, collectively, shall be deemed to be a single Subscriber, a single Party and a single Subscriber Group Member.
- (e) Each Subscriber Party shall be deemed to be a Designated Transmission Owner participating in each Equipment Class for which it is identified as a Designated Transmission Owner on Schedule 2.1 and a Subscriber Party on Attachment A.

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3. Designation of Subscriber Party Nominee. Each Subscriber Party hereby authorizes and empowers the Subscriber Party Nominee to be its legal representative and agent for all purposes related to the Agreement, including with respect to the execution and delivery of amendments thereto and the issuance and receipt of notices, including Fee Estimate Certifications, Fee Confirmation Notices and Regulatory Confirmation Notices. The Subscriber Parties may, from time to time, change the Subscriber Party Nominee by providing notice to Grid Assurance, which notice shall: (a) unequivocally authorize and empower the new Subscriber Party Nominee to be the legal representative and agent of the Subscriber Parties for all purposes related to the Agreement; and (b) be executed by each Subscriber Party.

4. Nominated Quantities. For each Equipment Class in which a Designated Transmission Owner participates (as set forth on Schedule 2.1 of the Agreement and Attachment A), that Designated Transmission Owner shall be deemed to have designated the total Nominated Quantity for that Equipment Class; *provided, however*, that notwithstanding Section 4.1 of Part 2 of the Agreement, if a Qualifying Event affects multiple Designated Transmission Owners participating in any Equipment Class, the maximum number of Inventoried Spares that all such Designated Transmission Owners, collectively, shall have the right to purchase from that Equipment Class shall be equal to the lesser of: (a) the Nominated Quantity for that Equipment Class; (b) the number of units of comparable equipment on the affected Designated Transmission Owners' electric transmission systems that were damaged, destroyed or impaired by that Qualifying Event; (c) the number of Inventoried Spares in that Equipment Class at that time; and (d) the number of Inventoried Spares available for sale to a single Transmission Group Member having the characteristics of all Designated Transmission Owners participating in that Equipment Class that were affected by the Qualifying Event (as reasonably determined by Grid Assurance) based on the Deployment Protocols.

5. Allocation of Costs and Liabilities.

- (a) Each Subscriber Party shall be severally and not jointly liable for payment of a portion (such portion, as designated on Attachment A, the "**Contract Allocated Share**") of the Sparing Service Fee, any Termination Liability and any other cost or liability owed by Subscriber pursuant to the Agreement other than any Equipment Class Liability or Subscriber Party Liability; *provided, however*, that the sum of all Contract Allocated Shares of all Subscriber Parties shall, at all times, equal one hundred percent (100%).
- (b) Each Subscriber Party shall be severally and not jointly liable for payment of a portion (such portion, as designated on Attachment A, the "**Class Allocated Share**") of any Equipment Class Liability; *provided, however*, that the sum of all Class Allocated Shares for all Designated Transmission Owners participating in each Equipment Class specified in this Addendum shall, at all times, equal one hundred percent (100%).

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- (c) A Subscriber Party shall be solely liable for its Subscriber Party Liabilities.
  - (d) In the event of a good faith dispute among the Subscriber Parties as to whether any cost or liability should be characterized as an Equipment Class Liability, a Subscriber Party Liability or a general liability subject to payment in accordance with Contract Allocated Shares, pending resolution of that dispute such cost or liability shall be treated in the manner determined by Grid Assurance, in its reasonable judgment.
6. Changes to Subscriber Parties and Nominated Quantities.
- (a) In addition to the rights granted pursuant to Article 6 of Part 2 of the Agreement, the Subscriber Parties shall have the right to amend the Agreement to add or remove Subscriber Parties and/or modify Class Allocated Shares and/or Contract Allocated Shares, in each case in accordance with this Section 6; *provided, however,* that any amendment of the Agreement to add any additional Equipment Class and/or to increase or decrease any Nominated Quantity in any Equipment Class shall be subject to: (i) Section 6.3 and Section 6.4 of Part 2 of the Agreement, as applicable; and (ii) Section 6(c).
  - (b) In order to amend the Agreement pursuant to this Section 6, the Subscriber Party Nominee shall deliver to Grid Assurance: (i) an Amendment Notice that identifies (1) each Removed Subscriber Party and each Remaining Subscriber Party, (2) the Equipment Class(es) in which any of the Designated Transmission Owners that are Remaining Subscriber Parties will participate, (3) subject to the requirements set forth in Section 5(a), the Contract Allocated Shares of all Remaining Subscriber Parties, (4) subject to the requirements set forth in Section 5(b), the Class Allocated Shares of the Remaining Subscriber Parties in each such Equipment Class, and (5) if there are any New Subscriber Parties, evidence that each such New Subscriber Party satisfies the credit requirements set forth in Section 10 of Part 2 of the Agreement; and (ii) subject to Section 7(b), in the event any amendment pursuant to this Section 6 will result in one (1) or more Removed Subscriber Parties, a release (in form and substance reasonable acceptable to Grid Assurance) executed by each such Removed Subscriber Party of any Claims arising out of, or related to, such amendment.
  - (c) If, in connection with a transaction described in Section 16.4.1 of Part 2: (i) the Agreement is amended to remove a Subscriber Party and reduce the Nominated Quantity for any Equipment Class in which such Removed Subscriber participated as a Designated Transmission Owner immediately prior to the effective date of that amendment; and (ii) the Third Party Transmission Purchaser and its Affiliates do not enter one (1) or more new Subscription Agreements (or



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amend one (1) or more existing Subscription Agreements) pursuant to which, for each such Equipment Class, the amount of the reduction in such Nominated Quantity pursuant to the amended Agreement is not fully included in any new, or added to any amended, Subscription Agreement(s) executed by such Third Party Transmission Purchaser and its Affiliates, for each such Equipment Class (1) the Removed Subscriber Party (or, if there are multiple Removed Subscriber Parties, such Removed Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of the amendment) shall be solely liable for the Reduction Liability calculated based on the difference between (x) the Permissible NQ Reduction Amount, and (y) the difference between the Nominated Quantity immediately prior to the effective date of the amended Agreement and the aggregate Nominated Quantities of the Third Party Transmission Purchaser and its Affiliates under any new or amended Subscription Agreements, and (2) the Remaining Subscriber Party that participated as a Designated Transmission Owner in that Equipment Class immediately prior to the effective date of the amended Agreement (or, if there are multiple such Remaining Subscriber Parties, such Remaining Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of the amended Agreement) shall be solely liable for any additional Reduction Liability owed pursuant to Section 16.4.1 of Part 2.

- (d) If, other than in connection with a transaction described in Section 16.4.1 of Part 2, the Agreement is amended (including pursuant to Section 7) to remove a Subscriber Party and reduce the Nominated Quantity for any Equipment Class in which such Removed Party participated as a Designated Transmission Owner immediately prior to the effective date of that amendment: (i) for any such Equipment Class for which such reduction is less than or equal to the Permissible NQ Reduction Amount, the Removed Subscriber Party (or, if there are multiple Removed Subscriber Parties, such Removed Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of that amendment) shall be solely liable for the Reduction Liability resulting from such reduction; and (ii) for any Equipment Class for which such reduction is greater than the Permissible NQ Reduction Amount (1) the Removed Subscriber Party (or, if there are multiple Removed Subscriber Parties, such Removed Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of that amendment) shall be solely liable for the portion of the Reduction Liability resulting from such reduction up to the Permissible NQ Reduction Amount, and (2) the Remaining Subscriber Party that participated as a Designated Transmission Owner in that Equipment Class immediately prior to the effective date of that amendment (or, if there are multiple such Remaining Subscriber Parties, such Remaining Subscriber Parties in proportion to their respective Class Allocated Shares as in effect immediately prior to the effective date of that amendment) shall be solely liable

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for the portion of the Reduction Liability resulting from such reduction to the extent it exceeds the Permissible NQ Reduction Amount.

- (e) Promptly upon receipt of an Amendment Notice pursuant to Section 6(b), Grid Assurance shall prepare and deliver to the Subscriber Party Nominee an amended Agreement, including a revised Schedule 2.1 to the Agreement and a revised Attachment A, in each case reflecting the changes proposed in such Amendment Notice.
- (f) Upon any amendment of the Agreement that results in one (1) or more Removed Subscriber Parties (including an amendment to remove a defaulting Subscriber Party pursuant to Section 7), each such Removed Subscriber Party shall remain solely liable to Grid Assurance for all of its Subscriber Party Liabilities as of the effective date of such amendment, including its Contract Allocated Share of all Sparing Service Fees owed pursuant to the Agreement and any damages owed as a result of any other breach of the Agreement or Event of Default by that Removed Subscriber Party.

7. Cure for Segregable Defaults.

- (a) Upon an Event of Default that is solely attributable to the acts or omissions of one (1) or more (but less than all) Subscriber Parties, the non-defaulting Subscriber Party(ies) shall not be subject to any liability based on such Event of Default if they amend the Agreement pursuant to Section 6 to remove each defaulting Subscriber Party as a Party thereto; *provided, however*, that: (i) the Subscriber Party Nominee shall deliver an Amendment Notice to remove the defaulting Subscriber Party(ies) no later than thirty (30) days after notice of such Event of Default; and (ii) the amendment to remove the defaulting Subscriber Party(ies) must be executed and delivered to Grid Assurance no later than ten (10) days after delivery thereof to the Subscriber Party Nominee. If, following an Event of Default that is solely attributable to the acts or omissions of one (1) or more (but less than all) Subscriber Parties, the non-defaulting Subscriber Parties fail to deliver an Amendment Notice or execute and deliver an amendment to the Agreement to remove the defaulting Subscriber Party(ies) in accordance with this Section 7(a), Grid Assurance shall be entitled to its remedies in accordance with Article 14 of Part 2 of the Agreement, including termination of the Agreement (in which case the Agreement shall be deemed to have been terminated due to an Event of Default by Subscriber and each of the Subscriber Parties shall be solely liable for the resulting Termination Liability in accordance with their Contract Allocated Shares).
- (b) If the Agreement is amended to remove all defaulting Subscriber Party(ies) pursuant to Section 7(a), the Remaining Subscriber Parties may, in lieu of

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providing the release(s) required pursuant to clause (ii) of Section 6(b), agree (pursuant to an agreement in form and substance reasonable acceptable to Grid Assurance) to indemnify, defend and hold harmless Grid Assurance's Indemnified Persons (to the extent based on the Contract Allocated Shares of such Remaining Subscriber Parties as in effect immediately following the effective date of such amendment) from and against all Claims by any Removed Subscriber Parties or their Affiliates arising out of, or related to, such amendment, including any such Claims alleging wrongful termination of the Agreement; provided, however, that the Remaining Subscriber Party(ies) indemnity obligations shall not apply to any Claims to the extent such Claims are found (by a court of competent jurisdiction by a final non-appealable judgment) to have been caused by the negligence or willful misconduct of any of the Grid Assurance Indemnified Persons.

8. Termination. The Agreement may only be terminated by the Subscriber Parties upon issuance of a Termination Notice by the Subscriber Party Nominee on behalf of all Subscriber Parties. Any Termination Notice delivered by any Subscriber Party(ies) other than the Subscriber Party Nominee or any such notice purporting to terminate any part (but not all) of the Agreement shall be null and void; *provided, however*, that nothing in this Section 8 shall limit the Subscriber Parties' right to amend the Agreement to remove Subscriber Parties.

9. Invoicing.

- (a) Any invoice required or authorized to be issued or delivered by Grid Assurance to any or all Subscriber Parties shall be deemed to have been issued or delivered upon issuance or delivery thereof to the Subscriber Party Nominee.
- (b) Grid Assurance shall issue a single invoice for Sparing Service Fees showing amounts owed by each Subscriber Party based on their Contract Allocated Shares.
- (c) Grid Assurance shall issue a single invoice for Equipment Class Liabilities showing amounts owed by each Subscriber Party participating as a Designated Transmission Owner participating in the applicable Equipment Class based on the Class Allocated Shares of such Subscriber Parties.

10. Credit Support. Each Subscriber Party shall be obligated to independently satisfy the credit requirements set forth in Article 10 of Part 2 of the Agreement.

11. Committees. All Subscriber Parties that are Designated Transmission Owners participating in any Equipment Class shall have the right to designate one (1) individual to serve on the Equipment Committee for that Equipment Class.

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12. Interpretation. Section 21.1 of Part 2 of the Agreement shall apply to this Addendum, with the exception that any references in this Addendum to Sections or Attachments refer to Sections of, or Attachments to, this Addendum unless expressly provided otherwise.
13. Representations, Warranties and Acknowledgements. Each Subscriber Party is hereby deemed to have made each of the representations, warranties and acknowledgements set forth in Article 15 of Part 2 of the Agreement.
14. Further Assurances. Each Subscriber Party shall independently be obligated and bound by the requirements set forth in Section 21.4 of Part 2 of the Agreement.
15. Counterparts. Grid Assurance and the Subscriber Parties may execute and deliver this Addendum in counterparts, all of which shall be deemed originals. Signatures delivered by facsimile or other electronic means shall be as valid as original ones.
16. Authorized Agent. American Electric Power Service Corporation is wholly authorized by Subscriber to perform any action, as agent and representative of Subscriber, included in, related to, or necessary to carry out the provisions of this Agreement, including delivery of any purchase order, notice, schedule or amendment issued hereunder. Notwithstanding American Electric Power Service Corporation's authority described herein, American Electric Power Service Corporation is not, nor shall it be construed to be, a party to the Agreement or to any purchase order, notice, schedule or amendment governed thereby, and is therefore not liable for any obligations of Subscriber hereunder.

*[Signature Page Follows]*

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*Grid Assurance LLC*

IN WITNESS WHEREOF, Grid Assurance and the Subscriber Parties have caused this Addendum to be duly executed as of the Execution Date.

GRID ASSURANCE LLC

By:   
\_\_\_\_\_  
Michael L. Deggendorf  
Chief Executive Officer

DocuSign Envelope ID: 08175B22-6F9A-4493-8949-0DCE50F0BF62

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*Grid Assurance LLC*

IN WITNESS WHEREOF, Grid Assurance and the Subscriber Parties have caused this Addendum to be duly executed as of the Execution Date.

AMERICAN ELECTRIC POWER SERVICE CORPORATION solely in its capacity as agent on behalf of each of

AEP APPALACHIAN TRANSMISSION COMPANY, INC.

AEP INDIANA MICHIGAN TRANSMISSION COMPANY, INC.

AEP KENTUCKY TRANSMISSION COMPANY, INC.

AEP OHIO TRANSMISSION COMPANY, INC.

AEP OKLAHOMA TRANSMISSION COMPANY, INC.

AEP TEXAS INC.

AEP WEST VIRGINIA TRANSMISSION COMPANY, INC.

APPALACHIAN POWER COMPANY

INDIANA MICHIGAN POWER COMPANY

KENTUCKY POWER COMPANY

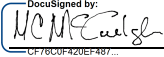
KINGSPORT POWER COMPANY

OHIO POWER COMPANY

PUBLIC SERVICE COMPANY OF OKLAHOMA

SOUTHWESTERN ELECTRIC POWER COMPANY

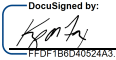
WHEELING POWER COMPANY

By:   
Mark C McCullough  
EVP Transmission

DocuSign Envelope ID: 08175B22-6F9A-4493-8949-0DCE50F0BF62

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*Grid Assurance LLC*

ELECTRIC TRANSMISSION TEXAS, LLC

By:  \_\_\_\_\_  
Kip M. Fox  
President

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*Grid Assurance LLC*

**GRID ASSURANCE LLC  
 SUBSCRIPTION AGREEMENT  
 MULTI-SUBSCRIBER ADDENDUM**

**ATTACHMENT A**  
 (as of April 2, 2019)

**Subscriber Party Nominee**

American Electric Power Service Corporation  
 One Riverside Plaza  
 Columbus, OH 43215  
 Attention: Antonio P. Smyth  
 Email: apsmyth@aep.com

**Class Allocated Shares**

<b>Equipment Class*</b>	<b>Subscriber Parties</b>	<b>Nominated Quantity*</b>	<b>Class Allocated Share</b>
Transformer – H345-L138	AEP Appalachian Transmission Company, Inc.	5	0
	AEP Indiana Michigan Transmission Company, Inc.		2.817%
	AEP Kentucky Transmission Company, Inc.		0
	AEP Ohio Transmission Company, Inc.		14.789%
	AEP Oklahoma Transmission Company, Inc.		3.521%
	AEP Texas Inc.		14.085%
	AEP West Virginia Transmission Company, Inc.		2.817%
	Appalachian Power Company		9.155%
	Electric Transmission Texas, LLC		2.817%
	Indiana Michigan Power Company		10.563%
	Kentucky Power Company		0.704%
	Kingsport Power Company		0
	Ohio Power Company		14.085%
	Public Service Company Of Oklahoma		10.563%
	Southwestern Electric Power Company		14.085%
Wheeling Power Company	0		
	<b>Total</b>	<b>100.0%</b>	
Circuit Breaker – CB-345	AEP Appalachian Transmission Company, Inc.	15	0
	AEP Indiana Michigan Transmission Company, Inc.		8.691%



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<b>Equipment Class*</b>	<b>Subscriber Parties</b>	<b>Nominated Quantity*</b>	<b>Class Allocated Share</b>
	AEP Kentucky Transmission Company, Inc.		0.564%
	AEP Ohio Transmission Company, Inc.		14.560%
	AEP Oklahoma Transmission Company, Inc.		3.386%
	AEP Texas Inc.		8.691%
	AEP West Virginia Transmission Company, Inc.		3.837%
	Appalachian Power Company		2.596%
	Electric Transmission Texas, LLC		21.783%
	Indiana Michigan Power Company		10.271%
	Kentucky Power Company		0.677%
	Kingsport Power Company		0
	Ohio Power Company		10.609%
	Public Service Company Of Oklahoma		4.628%
	Southwestern Electric Power Company		9.707%
	Wheeling Power Company		0
	<b>Total</b>	<b>100.0%</b>	
Circuit Breaker – CB-138	AEP Appalachian Transmission Company, Inc.	20	0.186%
	AEP Indiana Michigan Transmission Company, Inc.		4.017%
	AEP Kentucky Transmission Company, Inc.		0.331%
	AEP Ohio Transmission Company, Inc.		10.621%
	AEP Oklahoma Transmission Company, Inc.		1.201%
	AEP Texas Inc.		22.961%
	AEP West Virginia Transmission Company, Inc.		2.070%
	Appalachian Power Company		12.692%
	Electric Transmission Texas, LLC		3.727%
	Indiana Michigan Power Company		5.673%
	Kentucky Power Company		1.325%
	Kingsport Power Company		0.455%
	Ohio Power Company		15.549%
	Public Service Company Of Oklahoma		11.449%
	Southwestern Electric Power Company		7.039%
Wheeling Power Company	0.704%		
	<b>Total</b>	<b>100.0%</b>	

\* Equipment Classes and Nominated Quantities must coincide with those set forth on Schedule 2.1.

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## Contract Allocated Shares

Subscriber Parties	Contract Allocated Share
AEP Appalachian Transmission Company, Inc.	0.028%
AEP Indiana Michigan Transmission Company, Inc.	4.184%
AEP Kentucky Transmission Company, Inc.	0.164%
AEP Ohio Transmission Company, Inc.	14.111%
AEP Oklahoma Transmission Company, Inc.	3.142%
AEP Texas Inc.	14.342%
AEP West Virginia Transmission Company, Inc.	2.910%
Appalachian Power Company	8.368%
Electric Transmission Texas, LLC	6.782%
Indiana Michigan Power Company	9.763%
Kentucky Power Company	0.793%
Kingsport Power Company	0.069%
Ohio Power Company	13.605%
Public Service Company Of Oklahoma	9.500%
Southwestern Electric Power Company	12.133%
Wheeling Power Company	0.107%
Total	100.0%

\*\* The Subscriber Parties have advised Grid Assurance that it is their intention to amend the Agreement pursuant to Section 6.1 of Part 2 of the Agreement and Section 6 to (i) add one (1) or more Affiliates of the Subscriber Parties (each, an “**Intended Subscriber Party**” and collectively, the “**Intended Subscriber Parties**”) as Designated Transmission Owners and Subscriber Parties, and (ii) modify the Contract Allocated Shares and the Equipment Allocated Shares so that, after such amendment, one hundred percent (100%) of all Contract Allocated Shares and one hundred percent of the Equipment Allocated Shares for all designated Equipment Classes will be fully subscribed by the Remaining Subscriber Parties. Accordingly, though none of the Intended Subscriber Parties is a party to the Agreement or has any rights, obligations or liabilities pursuant thereto prior to any such amendment, Grid Assurance and the Subscriber Parties agree that:

- (a) the definition of “Required Regulatory Approval” shall be deemed to include all permits, licenses, authorizations, consents, decrees, waivers, approvals, exemptions from, filings with or notices to, Governmental Authorities required to be obtained by, or issued to, any Intended Subscriber Parties;
- (b) the Subscriber Parties shall provide notice to Grid Assurance pursuant to Section 3.3.3 and Section 3.3.4 of Part 2 of the Agreement with respect to (i) the status of the Intended Subscriber Parties’ efforts to obtain Required Regulatory Approvals, and (ii) any determination by an Intended Subscriber Party that a Required Regulatory Approval will not be obtained by such Intended Subscriber Party or, if obtained,

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would be subject to conditions that such Intended Subscriber Party deems unacceptable;

- (c) notwithstanding Section 3.3.5 of Part 2 of the Agreement, the Subscriber Parties shall not be permitted to provide Grid Assurance with a Fee Confirmation Notice until such time as the Agreement is amended so that so that one hundred percent (100%) of all Contract Allocated Shares and one hundred percent of the Equipment Allocated Shares for all designated Equipment Classes are fully subscribed by Persons that are Subscriber Parties; and
- (d) notwithstanding Section 3.4 of Part 2 of the Agreement, Grid Assurance shall have no obligation to execute or deliver an Acceptance Notice until such time as the Agreement is amended so that so that one hundred percent (100%) of all Contract Allocated Shares and one hundred percent of the Equipment Allocated Shares for all designated Equipment Classes are fully subscribed by Persons that are Subscriber Parties.

Document Accession #: 20140130-5342

Filed Date: 01/30/2014

Original Service Agreement No. 3756  
Effective Date: December 31, 2013

(PJM Queue #None – Mitchell Unit Nos. 1 & 2)

**INTERCONNECTION SERVICE AGREEMENT**

**Among**

**PJM INTERCONNECTION, L.L.C.**

**And**

**Kentucky Power Company**

**And**

**Appalachian Power Company**

Original Service Agreement No. 3756

**INTERCONNECTION SERVICE AGREEMENT**

**By and Among**

**PJM Interconnection, L.L.C.**

**And**

**Kentucky Power Company**

**And**

**Appalachian Power Company**

(PJM Queue Position #None – [Mitchell Unit Nos. 1 & 2](#))

- 1.0 Parties. This Interconnection Service Agreement (“ISA”) including the Specifications, Schedules and Appendices attached hereto and incorporated herein, is entered into by and between PJM Interconnection, L.L.C., the Regional Transmission Organization for the PJM Region (hereinafter “Transmission Provider” or “PJM”), Kentucky Power Company (“Interconnection Customer”) and Appalachian Power Company (“Interconnected Transmission Owner”). All capitalized terms herein shall have the meanings set forth in the appended definitions of such terms as stated in Part I of the PJM Open Access Transmission Tariff (“Tariff”).
- 2.0 Authority. This ISA is entered into pursuant to Part VI of the Tariff. Interconnection Customer has requested an Interconnection Service Agreement under the Tariff, and Transmission Provider has determined that Interconnection Customer is eligible under the Tariff to obtain this ISA. The standard terms and conditions for interconnection as set forth in Appendix 2 to this ISA are hereby specifically incorporated as provisions of this ISA. Transmission Provider, Interconnected Transmission Owner and Interconnection Customer agree to and assume all of the rights and obligations of the Transmission Provider, Interconnected Transmission Owner and Interconnection Customer, respectively, as set forth in Appendix 2 to this ISA.
- 3.0 Customer Facility Specifications. Attached are Specifications for the Customer Facility that Interconnection Customer proposes to interconnect with the Transmission System. Interconnection Customer represents and warrants that, upon completion of construction of such facilities, it will own or control the Customer Facility identified in section 1.0 of the Specifications attached hereto and made a part hereof. In the event that Interconnection Customer will not own the Customer Facility, Interconnection Customer represents and warrants that it is authorized by the owner(s) thereof to enter into this ISA and to represent such control.
- 4.0 Effective Date. Subject to any necessary regulatory acceptance, this ISA shall become effective on the closing date of the transfer of the Customer Facility assets from Ohio Power Company to the Interconnection Customer, who will operate the Customer Facility, and AEP Generating Resources Inc.. In the event such closing fails to occur, this ISA shall not become effective and shall be null and void. Once this ISA becomes effective, this ISA shall terminate on such date as mutually agreed upon by the parties, unless earlier terminated in accordance with the terms set forth in Appendix 2 to this ISA.

The term of the ISA shall be as provided in Section 1.3 of Appendix 2 to this ISA. Interconnection Service shall commence as provided in Section 1.2 of Appendix 2 to this ISA.

- 5.0 Security. In accord with Section 212.4 of the Tariff, Interconnection Customer shall provide the Transmission Provider (for the benefit of the Interconnected Transmission Owner) with a letter of credit from an agreed provider or other form of security reasonably acceptable to the Transmission Provider and that names the Transmission Provider as beneficiary ("Security") in the amount of \$0. This amount represents the sum of the estimated Costs, determined in accordance with Sections 212 and 217 of the Tariff, for which the Interconnection Customer will be responsible, less any Costs already paid by Interconnection Customer. Interconnection Customer acknowledges that its ultimate cost responsibility in accordance with Section 217 of the Tariff will be based upon the actual Costs of the facilities described in the Specifications, whether greater or lesser than the amount of the payment security provided under this section.

Should Interconnection Customer fail to provide security at the time the Interconnection Customer executes this ISA, or, if deferred, by the end of the 120-day period, this ISA shall be terminated.

- 6.0 Project Specific Milestones. In addition to the milestones stated in Section 212.5 of the Tariff, as applicable, during the term of this ISA, Interconnection Customer shall ensure that it meets each of the following development milestones:  
None.

Interconnection Customer shall demonstrate the occurrence of each of the foregoing milestones to Transmission Provider's reasonable satisfaction. Transmission Provider may reasonably extend any such milestone dates, in the event of delays that Interconnection Customer (i) did not cause and (ii) could not have remedied through the exercise of due diligence. The milestone dates stated in this ISA shall be deemed to be extended coextensively with any suspension of work initiated by Interconnection Customer in accordance with the Interconnection Construction Service Agreement.

- 7.0 Provision of Interconnection Service. Transmission Provider and Interconnected Transmission Owner agree to provide for the interconnection to the Transmission System in the PJM Region of Interconnection Customer's Customer Facility identified in the Specifications in accordance with Part IV and Part VI of the Tariff, the Operating Agreement of PJM Interconnection, L.L.C. ("Operating Agreement"), and this ISA, as they may be amended from time to time.
- 8.0 Assumption of Tariff Obligations. Interconnection Customer agrees to abide by all rules and procedures pertaining to generation and transmission in the PJM Region, including but not limited to the rules and procedures concerning the dispatch of generation or scheduling transmission set forth in the Tariff, the Operating Agreement and the PJM Manuals.

- 9.0 Facilities Study. Since the generation facility is already operational and interconnected to the Transmission System, no Facilities Study or System Impact Study was required. In designing and constructing the Attachment Facilities, Local Upgrades and/or Network Upgrades, if required and described in the Specifications attached to this ISA, Transmission Provider, the Interconnected Transmission Owner(s), and any other subcontractors employed by Transmission Provider have had to, and shall have to, rely on information provided by Interconnection Customer and possibly by third parties and may not have control over the accuracy of such information. Accordingly, NEITHER TRANSMISSION PROVIDER, THE INTERCONNECTED TRANSMISSION OWNER(s), NOR ANY OTHER SUBCONTRACTORS EMPLOYED BY TRANSMISSION PROVIDER OR INTERCONNECTED TRANSMISSION OWNER MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER ARISING BY OPERATION OF LAW, COURSE OF PERFORMANCE OR DEALING, CUSTOM, USAGE IN THE TRADE OR PROFESSION, OR OTHERWISE, INCLUDING WITHOUT LIMITATION IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, WITH REGARD TO THE ACCURACY, CONTENT, OR CONCLUSIONS OF THE FACILITIES STUDY OR THE SYSTEM IMPACT STUDY IF A FACILITIES STUDY WAS NOT REQUIRED OR OF THE ATTACHMENT FACILITIES, THE LOCAL UPGRADES AND/OR THE NETWORK UPGRADES, PROVIDED, HOWEVER, that Transmission Provider warrants that the Transmission Owner Interconnection Facilities and any Merchant Transmission Upgrades described in the Specifications will be designed and constructed (to the extent that Interconnected Transmission Owner is responsible for design and construction thereof) and operated in accordance with Good Utility Practice, as such term is defined in the Operating Agreement. Interconnection Customer acknowledges that it has not relied on any representations or warranties not specifically set forth herein and that no such representations or warranties have formed the basis of its bargain hereunder.
- 10.0 Construction of Transmission Owner Interconnection Facilities
- 10.1. Cost Responsibility. Interconnection Customer shall be responsible for and shall pay upon demand all Costs associated with the interconnection of the Customer Facility as specified in the Tariff. These Costs may include, but are not limited to, an Attachment Facilities charge, a Local Upgrades charge, a Network Upgrades charge and other charges, as well as Costs of any Merchant Network Upgrades constructed on behalf of Interconnection Customer. A description of the facilities required and an estimate of the Costs of these facilities are included in Sections 3.0 and 4.0 of the Specifications to this ISA.
- 10.2. Billing and Payments. Transmission Provider shall bill the Interconnection Customer for the Costs associated with the facilities contemplated by this ISA, estimates of which are set forth in the Specifications to this ISA, and the Interconnection Customer shall pay such Costs, in accordance with Section 11 of Appendix 2 to this ISA and the applicable Interconnection Construction Service Agreement. Upon receipt of each of Interconnection Customer's payments of such bills, Transmission Provider shall reimburse the applicable Interconnected

Transmission Owner. Pursuant to Section 212.4 of the Tariff, Interconnection Customer requests that Transmission Provider provide a quarterly cost reconciliation:

\_\_\_\_\_ Yes

  x   No

10.3. Contract Option. In the event that the Interconnection Customer and Interconnected Transmission Owner agree to utilize the Negotiated Contract Option provided by the Interconnection Construction Service Agreement to establish, subject to FERC acceptance, non-standard terms regarding cost responsibility, payment, billing and/or financing, the terms of Sections 10.1 and/or 10.2 of this Section 10.0 shall be superseded to the extent required to conform to such negotiated terms, as stated in a schedule attached to the parties' Interconnection Construction Service Agreement relating to interconnection of the Customer Facility.

10.4 In the event that the Interconnection Customer elects to construct some or all of the Transmission Owner Interconnection Facilities and/or of any Merchant Network Upgrades under the Option to Build of the Interconnection Construction Service Agreement, billing and payment for the Costs associated with the facilities contemplated by this ISA shall relate only to such portion of the Interconnection Facilities and/or any Merchant Network Upgrades as the Interconnected Transmission Owner is responsible for building.

#### 11.0 Interconnection Specifications

11.1 Point of Interconnection. The Point of Interconnection shall be as identified on the one-line diagram attached as Schedule B to this ISA.

11.2 List and Ownership of Interconnection Facilities. The Interconnection Facilities to be constructed and ownership of the components thereof are identified in Section 3.0 of the Specifications attached to this ISA.

11.2A List and Ownership of Merchant Network Upgrades. If applicable, Merchant Network Upgrades to be constructed and ownership of the components thereof are identified in Section 3.0 of the Specifications attached to this ISA.

11.3 Ownership and Location of Metering Equipment. The Metering Equipment to be constructed, the capability of the Metering Equipment to be constructed, and the ownership thereof, are identified on the attached Schedule C to this ISA.

11.4 Applicable Technical Standards. The Applicable Technical Requirements and Standards that apply to the Customer Facility and the Interconnection Facilities are identified in Schedule D to this ISA.



12.0 Power Factor Requirement.

Consistent with Section 4.7 of Appendix 2 to this ISA, the power factor requirement is as follows:

The existing 800 MW Mitchell Generating Plant Unit No. 1 portion of the Customer Facility shall retain its existing ability to maintain a power factor of at least 0.98 leading to 0.96 lagging measured at the generator's terminals.

The existing 800 MW Mitchell Generating Unit No. 2 portion of the Customer Facility shall retain its existing ability to maintain a power factor of at least 0.99 leading to 0.94 lagging measured at the generator's terminals.

- 13.0 Charges. In accordance with Sections 10 and 11 of Appendix 2 to this ISA, the Interconnection Customer shall pay to the Transmission Provider the charges applicable after Initial Operation, as set forth in Schedule E to this ISA. Promptly after receipt of such payments, the Transmission Provider shall forward such payments to the appropriate Interconnected Transmission Owner.
- 14.0 Third Party Beneficiaries. No third party beneficiary rights are created under this ISA, except, however, that, subject to modification of the payment terms stated in Section 10 of this ISA pursuant to the Negotiated Contract Option, payment obligations imposed on Interconnection Customer under this ISA are agreed and acknowledged to be for the benefit of the Interconnected Transmission Owner(s). Interconnection Customer expressly agrees that the Interconnected Transmission Owner(s) shall be entitled to take such legal recourse as it deems appropriate against Interconnection Customer for the payment of any Costs or charges authorized under this ISA or the Tariff with respect to Interconnection Service for which Interconnection Customer fails, in whole or in part, to pay as provided in this ISA, the Tariff and/or the Operating Agreement.
- 15.0 Waiver. No waiver by either party of one or more defaults by the other in performance of any of the provisions of this ISA shall operate or be construed as a waiver of any other or further default or defaults, whether of a like or different character.
- 16.0 Amendment. This ISA or any part thereof, may not be amended, modified, or waived other than by a written document signed by all parties hereto.
- 17.0 Construction With Other Parts Of The Tariff. This ISA shall not be construed as an application for service under Part II or Part III of the Tariff.
- 18.0 Notices. Any notice or request made by either party regarding this ISA shall be made, in accordance with the terms of Appendix 2 to this ISA, to the representatives of the other party and as applicable, to the Interconnected Transmission Owner(s), as indicated below:

Document Accession #: 20140130-5342

Filed Date: 01/30/2014

Transmission Provider:

PJM Interconnection, L.L.C.  
955 Jefferson Avenue  
Valley Forge Corporate Center  
Norristown, PA 19403-2497

Interconnection Customer:

[Kentucky Power Company](#)  
[1 Riverside Plaza](#)  
[Columbus, Ohio 43215](#)  
[Attn: Thomas Fecho](#)

Interconnected Transmission Owner:

[Appalachian Power Company](#)  
[700 Morrison Road](#)  
[Gahanna, OH 43230](#)  
[Attn: Scott N. Smith](#)

[cc: Associate General Counsel – Transactions](#)  
[American Electric Power Service Corporation](#)  
[1 Riverside Plaza, 29th Floor](#)  
[Columbus, OH 43215](#)

- 19.0 Incorporation Of Other Documents. All portions of the Tariff and the Operating Agreement pertinent to the subject matter of this ISA and not otherwise made a part hereof are hereby incorporated herein and made a part hereof.
- 20.0 Addendum of Non-Standard Terms and Conditions for Interconnection Service. Subject to FERC approval, the parties agree that the terms and conditions set forth in Schedule F hereto are hereby incorporated herein by reference and be made a part of this ISA. In the event of any conflict between a provision of Schedule F that FERC has accepted and any provision of Appendix 2 to this ISA that relates to the same subject matter, the pertinent provision of Schedule F shall control.
- 21.0 Addendum of Interconnection Customer's Agreement to Conform with IRS Safe Harbor Provisions for Non-Taxable Status. To the extent required, in accordance with Section 24.1 of Appendix 2 to this ISA, Schedule G to this ISA shall set forth the Interconnection Customer's agreement to conform with the IRS safe harbor provisions for non-taxable status.
- 22.0 Addendum of Interconnection Requirements for a Wind Generation Facility. To the extent required, Schedule H to this ISA sets forth interconnection requirements for a wind generation facility and is hereby incorporated by reference and made a part of this ISA.

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- 23.0 Infrastructure security of electric system equipment and operations and control hardware and software is essential to ensure day-to-day reliability and operational security. All Transmission Providers, Interconnected Transmission Owners, market participants, and Interconnection Customers interconnected with electric systems are to comply with the recommendations offered by the President's Critical Infrastructure Protection Board and best practice recommendations from the electric reliability authority. All public utilities are expected to meet basic standards for electric system infrastructure and operational security, including physical, operational, and cyber-security practices.

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IN WITNESS WHEREOF, Transmission Provider, Interconnection Customer and Interconnected Transmission Owner have caused this ISA to be executed by their respective authorized officials.

(PJM Queue Position #None)

Transmission Provider: PJM Interconnection, L.L.C.

By: /s/Alan Elmy                      Manager, Interconnection Planning      12/31/13  
Name                                      Title                                      Date

Printed name of signer: Alan Elmy

Interconnection Customer: **Kentucky Power Company**

By: /s/Timothy K. Light                      Vice President                      12/18/13  
Name                                      Title                                      Date

Printed name of signer: Timothy K. Light

Interconnected Transmission Owner: **Appalachian Power Company**

By: /s/Scott N. Smith                      Vice President                      12/18/13  
Name                                      Title                                      Date

Printed name of signer: Scott N. Smith

**SPECIFICATIONS FOR  
INTERCONNECTION SERVICE AGREEMENT  
By and Among  
PJM INTERCONNECTION, L.L.C.  
And  
Kentucky Power Company  
And  
Appalachian Power Company  
(PJM Queue Position # None – Mitchell Unit Nos. 1 & 2)**

1.0 Description of generating unit(s) (the Customer Facility) to be interconnected with the Transmission System in the PJM Region:

a. Name of Customer Facility:

Mitchell Generating Plant Unit No. 1 & Mitchell Generating Plant Unit No. 2

b. Location of Customer Facility:

Route 2 South  
Moundsville, WV 26041

c. Size in megawatts of Customer Facility:

For Generation Interconnection Customer:

Maximum Facility Output of 1600 MW (total for Mitchell Generating Plant Unit Nos. 1 and 2)

Mitchell Generating Plant Unit No. 1: 800 MW

Mitchell Generating Plant Unit No. 2: 800 MW

d. Description of the equipment configuration:

Mitchell Unit No. 1 is a single coal fired steam generator.  
Mitchell Unit No. 2 is a single coal fired steam generator.

2.0 Rights

2.1 Capacity Interconnection Rights:

Pursuant to and subject to the applicable terms of the Tariff, the Interconnection Customer shall have Capacity Interconnection Rights at the Point(s) of Interconnection specified in this Interconnection Service Agreement in the amount of 1562 MW (consisting of 770.1 MW for Mitchell Generating Plant Unit No. 1 and 791.9 MW for Mitchell Generating Plant Unit No. 2).

2.1a To the extent that any portion of the Customer Facility described in section 1.0 is not a Capacity Resource with Capacity Interconnection Rights, such portion of the Customer Facility shall be an Energy Resource. PJM reserves the right to limit total injections to the Maximum Facility Output in the event reliability would be affected by output greater than such quantity.

2.5 Incremental Auction Revenue Rights:

Pursuant to Section 231 of the Tariff, Interconnection Customer shall have Incremental Auction Revenue Rights in the following quantities: None

2.6 Incremental Capacity Transfer Rights:

Pursuant to Section 234 of the Tariff, Interconnection Customer shall have Incremental Capacity Transfer Rights between the following associated source(s) and sink(s) in the indicated quantities: None

3.0 Construction Responsibility and Ownership of Interconnection Facilities

a. Interconnection Customer.

(1) Interconnection Customer shall construct and, unless otherwise indicated, shall own, the following Interconnection Facilities:

**None**

(2) In the event that, in accordance with the Interconnection Construction Service Agreement, Interconnection Customer has exercised the Option to Build, it is hereby permitted to build in accordance with and subject to the conditions and limitations set forth in that Section, the following portions (1) of the Transmission Owner Interconnection Facilities and/or (2) of any Merchant Network Upgrades which constitute or are part of the Customer Facility:

**None**

Ownership of the facilities built by Interconnection Customer pursuant to the Option to Build shall be as provided in the Interconnection Construction Service Agreement.

b. Interconnected Transmission Owner

**None**

4.0 Subject to modification pursuant to the Negotiated Contract Option and/or the Option to Build under the Interconnection Construction Service Agreement, Interconnection

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Customer shall be subject to the estimated charges detailed below, which shall be billed and paid in accordance with Appendix 2, Section 11 of this ISA and the applicable Interconnection Construction Service Agreement.

4.1 Attachment Facilities Charge: \$ 0

4.2 Network Upgrades Charge: \$ 0

4.3 Local Upgrades Charge: \$ 0

4.4 Other Charges: \$ 0

4.5 Cost of Merchant Network Upgrades: \$ 0

4.6 Cost breakdown:

\$ 0 Direct Labor  
\$ 0 Direct Material  
\$ 0 Indirect Labor  
\$ 0 Indirect Material

\$ 0 Total

4.7 Security Amount Breakdown:

\$ 0 Estimated Cost of Non-Direct Connection Local Upgrades and/or  
Non-Direct Connection Network Upgrades

plus \$ 0 Estimated Cost of any Merchant Network Upgrades that  
Interconnected Transmission Owner is responsible for building

plus \$ 0 Estimated cost of the work (for the first three months) on the  
required Attachment Facilities, Direct Connection Local Upgrades, and Direct  
Connection Network Upgrades

plus \$ 0 Option to Build Security for Attachment Facilities, Direct  
Connection Local Upgrades, and Direct Connection Network Upgrades (including  
Cancellation Costs)

less \$ 0 Costs already paid by Interconnection Customer

\$ 0 Total Security required with ISA

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**APPENDICES:**

- **APPENDIX 1 - DEFINITIONS**
- **APPENDIX 2 - STANDARD TERMS AND CONDITIONS FOR INTERCONNECTIONS**

**SCHEDULES:**

- **SCHEDULE A - CUSTOMER FACILITY LOCATION/SITE PLAN**
- **SCHEDULE B - SINGLE-LINE DIAGRAM**
- **SCHEDULE C - LIST OF METERING EQUIPMENT**
- **SCHEDULE D - APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**
- **SCHEDULE E - SCHEDULE OF CHARGES**
- **SCHEDULE F - SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**
- **SCHEDULE G - INTERCONNECTION CUSTOMER'S AGREEMENT TO CONFORM WITH IRS SAFE HARBOR PROVISIONS FOR NON-TAXABLE STATUS**
- **SCHEDULE H - INTERCONNECTION REQUIREMENTS FOR A WIND GENERATION FACILITY**



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## **APPENDIX 1**

### **DEFINITIONS**

**From the PJM Tariff accepted for filing by the Commission  
as of the effective date of this agreement**

## **1. Definitions**

### **1.01 Abnormal Condition:**

Any condition on the Interconnection Facilities which, determined in accordance with Good Utility Practice, is: (i) outside normal operating parameters such that facilities are operating outside their normal ratings or that reasonable operating limits have been exceeded; and (ii) could reasonably be expected to materially and adversely affect the safe and reliable operation of the Interconnection Facilities; but which, in any case, could reasonably be expected to result in an Emergency Condition. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not, standing alone, constitute an Abnormal Condition.

### **1.0A Affected System:**

An electric system other than the Transmission Provider's Transmission System that may be affected by a proposed interconnection or on which a proposed interconnection or addition of facilities or upgrades may require modifications or upgrades to the Transmission System.

#### **1.0A.01 Affiliate:**

With respect to a corporation, partnership or other entity, each such other corporation, partnership or other entity that directly or indirectly, through one or more intermediaries, controls, is controlled by, or is under common control with, such corporation, partnership or other entity.

### **1.0B Affected System Operator:**

An entity that operates an Affected System or, if the Affected System is under the operational control of an independent system operator or a regional transmission organization, such independent entity.

## **1.1 Ancillary Services:**

Those services that are necessary to support the transmission of capacity and energy from resources to loads while maintaining reliable operation of the Transmission Provider's Transmission System in accordance with Good Utility Practice.

## **1.2 Annual Transmission Costs:**

The total annual cost of the Transmission System for purposes of Network Integration Transmission Service shall be the amount specified in Attachment H for each Zone until amended by the applicable Transmission Owner or modified by the Commission.

### **1.2.01 Applicable Laws and Regulations:**

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.

**1.2A Applicable Regional Entity:**

The Regional Entity for the region in which a Network Customer, Transmission Customer, Interconnection Customer, or Transmission Owner operates.

**1.2B Applicable Standards:**

The requirements and guidelines of NERC, the Applicable Regional Entity, and the Control Area in which the Customer Facility is electrically located; the PJM Manuals; and Applicable Technical Requirements and Standards.

**1.2C Applicable Technical Requirements and Standards:**

Those certain technical requirements and standards applicable to interconnections of generation and/or transmission facilities with the facilities of an Interconnected Transmission Owner or, as the case may be and to the extent applicable, of an Electric Distributor (as defined in Section 1.8 of the Operating Agreement), as published by Transmission Provider in a PJM Manual provided, however, that, with respect to any generation facilities with maximum generating capacity of 2 MW or less for which the Interconnection Customer executes a Construction Service Agreement or Interconnection Service Agreement on or after March 19, 2005, "Applicable Technical Requirements and Standards" shall refer to the "PJM Small Generator Interconnection Applicable Technical Requirements and Standards." All Applicable Technical Requirements and Standards shall be publicly available through postings on Transmission Provider's internet website.

**1.3 Application:**

A request by an Eligible Customer for transmission service pursuant to the provisions of the Tariff.

**1.3A Attachment Facilities:**

The facilities necessary to physically connect a Customer Facility to the Transmission System or interconnected distribution facilities.

**1.3AA Attachment H:**

Attachment H shall refer collectively to the Attachments to the PJM Tariff with the prefix "H-" that set forth, among other things, the Annual Transmission Rates for Network Integration Transmission Service in the PJM Zones.

### **1.3B Behind The Meter Generation:**

Behind The Meter Generation refers to a generation unit that delivers energy to load without using the Transmission System or any distribution facilities (unless the entity that owns or leases the distribution facilities has consented to such use of the distribution facilities and such consent has been demonstrated to the satisfaction of the Office of the Interconnection); provided, however, that Behind The Meter Generation does not include (i) at any time, any portion of such generating unit's capacity that is designated as a Generation Capacity Resource; or (ii) in an hour, any portion of the output of such generating unit[s] that is sold to another entity for consumption at another electrical location or into the PJM Interchange Energy Market.

#### **1.3BB Black Start Service:**

Black Start Service is the capability of generating units to start without an outside electrical supply or the demonstrated ability of a generating unit with a high operating factor (subject to Transmission Provider concurrence) to automatically remain operating at reduced levels when disconnected from the grid.

##### **1.3BB.01 Breach:**

The failure of a party to perform or observe any material term or condition of Part IV or Part VI of the Tariff, or any agreement entered into thereunder as described in the relevant provisions of such agreement.

##### **1.3BB.02 Breaching Party:**

A party that is in Breach of Part IV or Part VI and/or an agreement entered into thereunder.

##### **1.3BB.03 Cancellation Costs:**

The Costs and liabilities incurred in connection with: (a) cancellation of supplier and contractor written orders and agreements entered into to design, construct and install Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, and/or (b) completion of some or all of the required Attachment Facilities, Direct Assignment Facilities and/or Customer-Funded Upgrades, or specific unfinished portions and/or removal of any or all of such facilities which have been installed, to the extent required for the Transmission Provider and/or Transmission Owner(s) to perform their respective obligations under Part IV and/or Part VI of the Tariff.

### **1.3C Capacity Interconnection Rights:**

The rights to input generation as a Generation Capacity Resource into the Transmission System at the Point of Interconnection where the generating facilities connect to the Transmission System.

### **1.3D Capacity Resource:**

Shall have the meaning provided in the Reliability Assurance Agreement.

**1.3E Capacity Transmission Injection Rights:**

The rights to schedule energy and capacity deliveries at a Point of Interconnection (as defined in Section 1.33A) of a Merchant Transmission Facility with the Transmission System. Capacity Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility and/or Controllable A.C. Merchant Transmission Facilities that connects the Transmission System to another control area. Deliveries scheduled using Capacity Transmission Injection Rights have rights similar to those under Firm Point-to-Point Transmission Service or, if coupled with a generating unit external to the PJM Region that satisfies all applicable criteria specified in the PJM Manuals, similar to Capacity Interconnection Rights.

**1.3F Commencement Date:**

The date on which Interconnection Service commences in accordance with an Interconnection Service Agreement.

**1.4 Commission:**

The Federal Energy Regulatory Commission.

**1.5 Completed Application:**

An Application that satisfies all of the information and other requirements of the Tariff, including any required deposit.

**1.5.01 Confidential Information:**

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 New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party, which is designated as confidential by the party supplying the information, whether conveyed verbally, electronically, in writing, through inspection, or otherwise, and shall include, without limitation, all information relating to the producing party's technology, research and development, business affairs and pricing, and any information supplied by any New Service Customer, Transmission Owner, or other Interconnection Party or Construction Party to another such party prior to the execution of an Interconnection Service Agreement or a Construction Service Agreement.

**1.5A Consolidated Transmission Owners Agreement:**

The certain Consolidated Transmission Owners Agreement dated as of December 15, 2005, by and among the Transmission Owners and by and between the Transmission Owners and PJM Interconnection, L.L.C.

**1.5B Constructing Entity:**

Either the Transmission Owner or the New Services Customer, depending on which entity has the construction responsibility pursuant to Part VI and the applicable Construction Service Agreement; this term shall also be used to refer to an Interconnection Customer with respect to the construction of the Customer Interconnection Facilities.

**1.5C Construction Party:**

A party to a Construction Service Agreement. "Construction Parties" shall mean all of the Parties to a Construction Service Agreement.

**1.5D Construction Service Agreement:**

Either an Interconnection Construction Service Agreement or an Upgrade Construction Service Agreement.

**1.6 Control Area:**

An electric power system or combination of electric power systems to which a common automatic generation control scheme is applied in order to:

- (1) match, at all times, the power output of the generators within the electric power system(s) and capacity and energy purchased from entities outside the electric power system(s), with the load within the electric power system(s);
- (2) maintain scheduled interchange with other Control Areas, within the limits of Good Utility Practice;
- (3) maintain the frequency of the electric power system(s) within reasonable limits in accordance with Good Utility Practice; and
- (4) provide sufficient generating capacity to maintain operating reserves in accordance with Good Utility Practice.

**1.6A Control Zone:**

Shall have the meaning given in the Operating Agreement.

**1.6B Controllable A.C. Merchant Transmission Facilities:**

Transmission facilities that (1) employ technology which Transmission Provider reviews and verifies will permit control of the amount and/or direction of power flow on such facilities to such extent as to effectively enable the controllable facilities to be operated as if they were direct

current transmission facilities, and (2) that are interconnected with the Transmission System pursuant to Part IV and Part VI of the Tariff.

**1.6C Costs:**

As used in Part IV, Part VI and related attachments to the Tariff, costs and expenses, as estimated or calculated, as applicable, including, but not limited to, capital expenditures, if applicable, and overhead, return, and the costs of financing and taxes and any Incidental Expenses.

**1.6D Counterparty:**

PJMSettlement as the contracting party, in its name and own right and not as an agent, to an agreement or transaction with a market participant or other customer.

**1.7 Curtailment:**

A reduction in firm or non-firm transmission service in response to a transfer capability shortage as a result of system reliability conditions.

**1.7A Customer Facility:**

Generation facilities or Merchant Transmission Facilities interconnected with or added to the Transmission System pursuant to an Interconnection Request under Subparts A of Part IV of the Tariff.

**1.7A.01 Customer-Funded Upgrade:**

Any Network Upgrade, Local Upgrade, or Merchant Network Upgrade for which cost responsibility (i) is imposed on an Interconnection Customer or an Eligible Customer pursuant to Section 217 of the Tariff, or (ii) is voluntarily undertaken by a market participant in fulfillment of an Upgrade Request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement. No Network Upgrade, Local Upgrade or Merchant Network Upgrade or other transmission expansion or enhancement shall be a Customer-Funded Upgrade if and to the extent that the costs thereof are included in the rate base of a public utility on which a regulated return is earned.

**1.7A.02 Customer Interconnection Facilities:**

All facilities and equipment owned and/or controlled, operated and maintained by Interconnection Customer on Interconnection Customer's side of the Point of Interconnection identified in the appropriate appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions, or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System.

**1.7B Daily Capacity Deficiency Rate:**

Daily Capacity Deficiency Rate is as defined in Schedule 11 of the Reliability Assurance Agreement.

**1.7C Deactivation:**

The retirement or mothballing of a generating unit governed by Part V of this Tariff.

**1.7D Deactivation Avoidable Cost Credit:**

The credit paid to Generation Owners pursuant to section 114 of this Tariff.

**1.7E Deactivation Avoidable Cost Rate:**

The formula rate established pursuant to section 115 of this Tariff.

**1.7F Deactivation Date:**

The date a generating unit within the PJM Region is either retired or mothballed and ceases to operate.

**1.7G Default:**

As used in the Interconnection Service Agreement and Construction Service Agreement, the failure of a Breaching Party to cure its Breach in accordance with the applicable provisions of an Interconnection Service Agreement or Construction Service Agreement.

**1.8 Delivering Party:**

The entity supplying capacity and energy to be transmitted at Point(s) of Receipt.

**1.9 Designated Agent:**

Any entity that performs actions or functions on behalf of the Transmission Provider, a Transmission Owner, an Eligible Customer, or the Transmission Customer required under the Tariff.

**1.10 Direct Assignment Facilities:**

Facilities or portions of facilities that are constructed for the sole use/benefit of a particular Transmission Customer requesting service under the Tariff. Direct Assignment Facilities shall be specified in the Service Agreement that governs service to the Transmission Customer and shall be subject to Commission approval.

**1.10A [RESERVED]**



### **1.10B Economic Minimum:**

The lowest incremental MW output level a unit can achieve while following economic dispatch.

### **1.11 Eligible Customer:**

(i) Any electric utility (including any Transmission Owner and any power marketer), Federal power marketing agency, or any person generating electric energy for sale for resale is an Eligible Customer under the Tariff. Electric energy sold or produced by such entity may be electric energy produced in the United States, Canada or Mexico. However, with respect to transmission service that the Commission is prohibited from ordering by Section 212(h) of the Federal Power Act, such entity is eligible only if the service is provided pursuant to a state requirement that the Transmission Provider or Transmission Owner offer the unbundled transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner.

(ii) Any retail customer taking unbundled transmission service pursuant to a state requirement that the Transmission Provider or a Transmission Owner offer the transmission service, or pursuant to a voluntary offer of such service by a Transmission Owner, is an Eligible Customer under the Tariff. As used in Part VI, Eligible Customer shall mean only those Eligible Customers that have submitted a Completed Application.

#### **1.11.01 Emergency Condition:**

A condition or situation (i) that in the judgment of any Interconnection Party is imminently likely to endanger life or property; or (ii) that in the judgment of the Interconnected Transmission Owner or Transmission Provider is imminently likely (as determined in a non-discriminatory manner) to cause a material adverse effect on the security of, or damage to, the Transmission System, the Interconnection Facilities, or the transmission systems or distribution systems to which the Transmission System is directly or indirectly connected; or (iii) that in the judgment of Interconnection Customer is imminently likely (as determined in a non-discriminatory manner) to cause damage to the Customer Facility or to the Customer Interconnection Facilities. System restoration and black start shall be considered Emergency Conditions, provided that a Generation Interconnection Customer is not obligated by an Interconnection Service Agreement to possess black start capability. Any condition or situation that results from lack of sufficient generating capacity to meet load requirements or that results solely from economic conditions shall not constitute an Emergency Condition, unless one or more of the enumerated conditions or situations identified in this definition also exists.

#### **1.11A Energy Resource:**

A generating facility that is not a Capacity Resource.

##### **1.11A.01 Energy Settlement Area:**

The bus or distribution of busses that represents the physical location of Network Load and by which the obligations of the Network Customer to PJM are settled.

**1.11B Energy Transmission Injection Rights:**

The rights to schedule energy deliveries at a specified point on the Transmission System. Energy Transmission Injection Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Deliveries scheduled using Energy Transmission Injection Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

**1.11C Environmental Laws:**

Applicable Laws or Regulations relating to pollution or protection of the environment, natural resources or human health and safety.

**1.12 Facilities Study:**

An engineering study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) to determine the required modifications to the Transmission Provider's Transmission System, including the cost and scheduled completion date for such modifications, that will be required to provide the requested transmission service or to accommodate an Interconnection Request or Upgrade Request. As used in the Interconnection Service Agreement or Construction Service Agreement, Facilities Study shall mean that certain Facilities Study conducted by Transmission Provider (or at its direction) to determine the design and specification of the Interconnection Facilities necessary to accommodate the New Service Customer's New Service Request in accordance with Section 207 of Part VI of the Tariff.

**1.12A Federal Power Act:**

The Federal Power Act, as amended, 16 U.S.C. §§ 791a, et seq.

**1.12B FERC:**

The Federal Energy Regulatory Commission or its successor.

**1.13 Firm Point-To-Point Transmission Service:**

Transmission Service under this Tariff that is reserved and/or scheduled between specified Points of Receipt and Delivery pursuant to Part II of this Tariff.

**1.13A Firm Transmission Withdrawal Rights:**

The rights to schedule energy and capacity withdrawals from a Point of Interconnection (as defined in Section 1.33A) of a Merchant Transmission Facility with the Transmission System. Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission

Facility that connects the Transmission System with another control area. Withdrawals scheduled using Firm Transmission Withdrawal Rights have rights similar to those under Firm Point-to-Point Transmission Service.

**1.13A.01 Force Majeure:**

Any cause beyond the control of the affected Interconnection Party or Construction 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 public enemy, 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.

**1.13A.02 Generation Capacity Resource:**

"Generation Capacity Resource" shall have the meaning specified in the Reliability Assurance Agreement.

**1.13B Generation Interconnection Customer:**

An entity that submits an Interconnection Request to interconnect a new generation facility or to increase the capacity of an existing generation facility interconnected with the Transmission System in the PJM Region.

**1.13C Generation Interconnection Facilities Study:**

A Facilities Study related to a Generation Interconnection Request.

**1.13D Generation Interconnection Feasibility Study:**

A study conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) in accordance with Section 36.2 of this Tariff.

**1.13E Generation Interconnection Request:**

A request by a Generation Interconnection Customer pursuant to Subpart A of Part IV of the Tariff to interconnect a generating unit with the Transmission System or to increase the capacity of a generating unit interconnected with the Transmission System in the PJM Region.

**1.13F Generation Owner:**

An entity that owns or otherwise controls and operates one or more operating generating units in the PJM Region.

**1.14 Good Utility Practice:**

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(a)(4).

**1.14.01 Governmental Authority:**

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 jurisdiction over any Interconnection Party or Construction Party or regarding any matter relating to an Interconnection Service Agreement or Construction Service Agreement, as applicable.

**1.14.02 Hazardous Substances:**

Any chemicals, materials or substances defined as or included in the definition of “hazardous substances,” “hazardous wastes,” “hazardous materials,” “hazardous constituents,” “restricted hazardous materials,” “extremely hazardous substances,” “toxic substances,” “radioactive substances,” “contaminants,” “pollutants,” “toxic pollutants” or words of similar meaning and regulatory effect under any applicable Environmental Law, or any other chemical, material or substance, exposure to which is prohibited, limited or regulated by any applicable Environmental Law.

**1.14A IDR Transfer Agreement:**

An agreement to transfer, subject to the terms of Section 49B of the Tariff, Incremental Deliverability Rights to a party for the purpose of eliminating or reducing the need for Local or Network Upgrades that would otherwise have been the responsibility of the party receiving such rights.

**1.14A.01 Incidental Expenses:**

Shall mean those expenses incidental to the performance of construction pursuant to an Interconnection Construction Service Agreement, including, but not limited to, the expense of temporary construction power, telecommunications charges, Interconnected Transmission Owner expenses associated with, but not limited to, document preparation, design review, installation,

monitoring, and construction-related operations and maintenance for the Customer Facility and for the Interconnection Facilities.

**1.14B Incremental Auction Revenue Rights:**

The additional Auction Revenue Rights (as defined in Section 1.3.1A of Schedule 1 of the Operating Agreement), not previously feasible, created by the addition of Incremental Rights-Eligible Required Transmission Enhancements, Merchant Transmission Facilities, or of one or more Customer-Funded Upgrades.

**1.14B.01 Incremental Rights-Eligible Required Transmission Enhancements:**

Regional Facilities and Necessary Lower Voltage Facilities or Lower Voltage Facilities (as defined in Schedule 12 of the Tariff) and meet one of the following criteria: (1) cost responsibility is assigned to non-contiguous Zones that are not directly electrically connected; or (2) cost responsibility is assigned to Merchant Transmission Providers that are Responsible Customers.

**1.14C Incremental Available Transfer Capability Revenue Rights:**

The rights to revenues that are derived from incremental Available Transfer Capability created by the addition of Merchant Transmission Facilities or of one of more Customer-Funded Upgrades.

**1.14D Incremental Deliverability Rights (IDRs):**

The rights to the incremental ability, resulting from the addition of Merchant Transmission Facilities, to inject energy and capacity at a point on the Transmission System, such that the injection satisfies the deliverability requirements of a Capacity Resource. Incremental Deliverability Rights may be obtained by a generator or a Generation Interconnection Customer, pursuant to an IDR Transfer Agreement, to satisfy, in part, the deliverability requirements necessary to obtain Capacity Interconnection Rights.

**1.14Da Initial Operation:**

The commencement of operation of the Customer Facility and Customer Interconnection Facilities after satisfaction of the conditions of Section 1.4 of Appendix 2 of an Interconnection Service Agreement.

**1.14Db Initial Study:**

A study of a Completed Application conducted by the Transmission Provider (in coordination with the affected Transmission Owner(s)) in accordance with Section 19 or Section 32 of the Tariff.

**1.14Dc Interconnected Entity:**

Either the Interconnection Customer or the Interconnected Transmission Owner; Interconnected Entities shall mean both of them.

**1.14D.01 Interconnected Transmission Owner:**

The Transmission Owner to whose transmission facilities or distribution facilities Customer Interconnection Facilities are, or as the case may be, a Customer Facility is, being directly connected. When used in an Interconnection Construction Service Agreement, the term may refer to a Transmission Owner whose facilities must be upgraded pursuant to the Facilities Study, but whose facilities are not directly interconnected with those of the Interconnection Customer.

**1.14D.02 Interconnection Construction Service Agreement:**

The agreement entered into by an Interconnection Customer, Interconnected Transmission Owner and the Transmission Provider pursuant to Subpart B of Part VI of the Tariff and in the form set forth in Attachment P of the Tariff, relating to construction of Attachment Facilities, Network Upgrades, and/or Local Upgrades and coordination of the construction and interconnection of an associated Customer Facility. A separate Interconnection Construction Service Agreement will be executed with each Transmission Owner that is responsible for construction of any Attachment Facilities, Network Upgrades, or Local Upgrades associated with interconnection of a Customer Facility.

**1.14E Interconnection Customer:**

A Generation Interconnection Customer and/or a Transmission Interconnection Customer.

**1.14F Interconnection Facilities:**

The Transmission Owner Interconnection Facilities and the Customer Interconnection Facilities.

**1.14G Interconnection Feasibility Study:**

Either a Generation Interconnection Feasibility Study or Transmission Interconnection Feasibility Study.

**1.14G.01 Interconnection Party:**

Transmission Provider, Interconnection Customer, or the Interconnected Transmission Owner. Interconnection Parties shall mean all of them.

**1.14H Interconnection Request:**

A Generation Interconnection Request, a Transmission Interconnection Request and/or an IDR Transfer Agreement.

**1.14H.01 Interconnection Service:**

The physical and electrical interconnection of the Customer Facility with the Transmission System pursuant to the terms of Part IV and Part VI and the Interconnection Service Agreement entered into pursuant thereto by Interconnection Customer, the Interconnected Transmission Owner and Transmission Provider.

**1.14I Interconnection Service Agreement:**

An agreement among the Transmission Provider, an Interconnection Customer and an Interconnected Transmission Owner regarding interconnection under Part IV and Part VI of the Tariff.

**1.14J Interconnection Studies:**

The Interconnection Feasibility Study, the System Impact Study, and the Facilities Study described in Part IV and Part VI of the Tariff.

**1.15 Interruption:**

A reduction in non-firm transmission service due to economic reasons pursuant to Section 14.7.

**1.15A List of Approved Contractors:**

A list developed by each Transmission Owner and published in a PJM Manual of (a) contractors that the Transmission Owner considers to be qualified to install or construct new facilities and/or upgrades or modifications to existing facilities on the Transmission Owner's system, provided that such contractors may include, but need not be limited to, contractors that, in addition to providing construction services, also provide design and/or other construction-related services, and (b) manufacturers or vendors of major transmission-related equipment (e.g., high-voltage transformers, transmission line, circuit breakers) whose products the Transmission Owner considers acceptable for installation and use on its system.

**1.16 Load Ratio Share:**

Ratio of a Transmission Customer's Network Load to the Transmission Provider's total load.

**1.17 Load Shedding:**

The systematic reduction of system demand by temporarily decreasing load in response to transmission system or area capacity shortages, system instability, or voltage control considerations under Part II or Part III of the Tariff.

**1.17A Local Upgrades:**

Modifications or additions of facilities to abate any local thermal loading, voltage, short circuit, stability or similar engineering problem caused by the interconnection and delivery of generation to the Transmission System. Local Upgrades shall include:

(i) Direct Connection Local Upgrades which are Local Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) Non-Direct Connection Local Upgrades which are parallel flow Local Upgrades that are not Direct Connection Local Upgrades.

**1.18 Long-Term Firm Point-To-Point Transmission Service:**

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of one year or more.

**1.18A [RESERVED]**

**1.18A.01 [RESERVED]**

**1.18A.02 Material Modification:**

Any modification to an Interconnection Request that has a material adverse effect on the cost or timing of Interconnection Studies related to, or any Network Upgrades or Local Upgrades needed to accommodate, any Interconnection Request with a later Queue Position.

**1.18A.03 Maximum Facility Output:**

The maximum (not nominal) net electrical power output in megawatts, specified in the Interconnection Service Agreement, after supply of any parasitic or host facility loads, that a Generation Interconnection Customer's Customer Facility is expected to produce, provided that the specified Maximum Facility Output shall not exceed the output of the proposed Customer Facility that Transmission Provider utilized in the System Impact Study.

**1.18B Merchant A.C. Transmission Facilities:**

Merchant Transmission Facilities that are alternating current (A.C.) transmission facilities, other than those that are Controllable A.C. Merchant Transmission Facilities.

**1.18C Merchant D.C. Transmission Facilities:**

Direct current (D.C.) transmission facilities that are interconnected with the Transmission System pursuant to Part IV and Part VI of the Tariff.

**1.18D Merchant Network Upgrades:**



Merchant A.C. Transmission Facilities that are additions to, or modifications or replacements of, physical facilities of the Interconnected Transmission Owner that, on the date of the pertinent Transmission Interconnection Customer's Interconnection Request, are part of the Transmission System or are included in the Regional Transmission Expansion Plan.

**1.18E Merchant Transmission Facilities:**

A.C. or D.C. transmission facilities that are interconnected with or added to the Transmission System pursuant to Part IV and Part VI of the Tariff and that are so identified on Attachment T to the Tariff, provided, however, that Merchant Transmission Facilities shall not include (i) any Customer Interconnection Facilities, (ii) any physical facilities of the Transmission System that were in existence on or before March 20, 2003 ; (iii) any expansions or enhancements of the Transmission System that are not identified as Merchant Transmission Facilities in the Regional Transmission Expansion Plan and Attachment T to the Tariff, or (iv) any transmission facilities that are included in the rate base of a public utility and on which a regulated return is earned.

**1.18F Merchant Transmission Provider:**

An Interconnection Customer that (1) owns, controls, or controls the rights to use the transmission capability of, Merchant D.C. Transmission Facilities and/or Controllable A.C. Merchant Transmission Facilities that connect the Transmission System with another control area, (2) has elected to receive Transmission Injection Rights and Transmission Withdrawal Rights associated with such facility pursuant to Section 36 of the Tariff, and (3) makes (or will make) the transmission capability of such facilities available for use by third parties under terms and conditions approved by the Commission and stated in the Tariff, consistent with Section 38 below.

**1.18G Metering Equipment:**

All metering equipment installed at the metering points designated in the appropriate appendix to an Interconnection Service Agreement.

**1.19 Native Load Customers:**

The wholesale and retail power customers of a Transmission Owner on whose behalf the Transmission Owner, by statute, franchise, regulatory requirement, or contract, has undertaken an obligation to construct and operate the Transmission Owner's system to meet the reliable electric needs of such customers.

**1.19A NERC:**

The North American Electric Reliability Council or any successor thereto.

**1.19B Neutral Party:**

Shall have the meaning provided in Section 9.3(v).

**1.20 Network Customer:**

An entity receiving transmission service pursuant to the terms of the Transmission Provider's Network Integration Transmission Service under Part III of the Tariff.

**1.21 Network Integration Transmission Service:**

The transmission service provided under Part III of the Tariff.

**1.22 Network Load:**

The load that a Network Customer designates for Network Integration Transmission Service under Part III of the Tariff. The Network Customer's Network Load shall include all load (including losses) served by the output of any Network Resources designated by the Network Customer. A Network Customer may elect to designate less than its total load as Network Load but may not designate only part of the load at a discrete Point of Delivery. Where an Eligible Customer has elected not to designate a particular load at discrete points of delivery as Network Load, the Eligible Customer is responsible for making separate arrangements under Part II of the Tariff for any Point-To-Point Transmission Service that may be necessary for such non-designated load.

**1.23 Network Operating Agreement:**

An executed agreement that contains the terms and conditions under which the Network Customer shall operate its facilities and the technical and operational matters associated with the implementation of Network Integration Transmission Service under Part III of the Tariff.

**1.24 Network Operating Committee:**

A group made up of representatives from the Network Customer(s) and the Transmission Provider established to coordinate operating criteria and other technical considerations required for implementation of Network Integration Transmission Service under Part III of this Tariff.

**1.25 Network Resource:**

Any designated generating resource owned, purchased, or leased by a Network Customer under the Network Integration Transmission Service Tariff. Network Resources do not include any resource, or any portion thereof, that is committed for sale to third parties or otherwise cannot be called upon to meet the Network Customer's Network Load on a non-interruptible basis, except for purposes of fulfilling obligations under a reserve sharing program.

**1.26 Network Upgrades:**

Modifications or additions to transmission-related facilities that are integrated with and support the Transmission Provider's overall Transmission System for the general benefit of all users of such Transmission System. Network Upgrades shall include:

(i) **Direct Connection Network Upgrades** which are Network Upgrades that only serve the Customer Interconnection Facility and have no impact or potential impact on the Transmission System until the final tie-in is complete; and

(ii) **Non-Direct Connection Network Upgrades** which are parallel flow Network Upgrades that are not Direct Connection Network Upgrades.

**1.26A New PJM Zone(s):**

The Zone included in this Tariff, along with applicable Schedules and Attachments, for Commonwealth Edison Company, The Dayton Power and Light Company and the AEP East Operating Companies (Appalachian Power Company, Columbus Southern Power Company, Indiana Michigan Power Company, Kentucky Power Company, Kingsport Power Company, Ohio Power Company and Wheeling Power Company).

**1.26B New Service Customers:**

All customers that submit an Interconnection Request, a Completed Application, or an Upgrade Request that is pending in the New Services Queue.

**1.26C New Service Request:**

An Interconnection Request, a Completed Application, or an Upgrade Request.

**1.26D New Services Queue:**

All Interconnection Requests, Completed Applications, and Upgrade Requests that are received within each three-month period ending on January 31, April 30, July 31, and October 31 of each year shall collectively comprise a New Services Queue.

**1.26E New Services Queue Closing Date:**

Each January 31, April 30, July 31, and October 31 shall be the Queue Closing Date for the New Services Queue comprised of Interconnection Requests, Completed Applications, and Upgrade Requests received during the three-month period ending on such date.

**1.26F Nominal Rated Capability:**

The nominal maximum rated capability in megawatts of a Transmission Interconnection Customer's Customer Facility or the nominal increase in transmission capability in megawatts of the Transmission System resulting from the interconnection or addition of a Transmission

Interconnection Customer's Customer Facility, as determined in accordance with pertinent Applicable Standards and specified in the Interconnection Service Agreement.

**1.27 Non-Firm Point-To-Point Transmission Service:**

Point-To-Point Transmission Service under the Tariff that is reserved and scheduled on an as-available basis and is subject to Curtailment or Interruption as set forth in Section 14.7 under Part II of this Tariff. Non-Firm Point-To-Point Transmission Service is available on a stand-alone basis for periods ranging from one hour to one month.

**1.27.01 Non-Firm Sale:**

An energy sale for which receipt or delivery may be interrupted for any reason or no reason, without liability on the part of either the buyer or seller.

**1.27A Non-Firm Transmission Withdrawal Rights:**

The rights to schedule energy withdrawals from a specified point on the Transmission System. Non-Firm Transmission Withdrawal Rights may be awarded only to a Merchant D.C. Transmission Facility that connects the Transmission System to another control area. Withdrawals scheduled using Non-Firm Transmission Withdrawal Rights have rights similar to those under Non-Firm Point-to-Point Transmission Service.

**1.27AA Non-Retail Behind The Meter Generation:**

Behind the Meter Generation that is used by municipal electric systems, electric cooperatives, or electric distribution companies to serve load.

**1.27B Non-Zone Network Load:**

Network Load that is located outside of the PJM Region.

**1.27C Office of the Interconnection:**

Office of the Interconnection shall have the meaning set forth in the Operating Agreement.

**1.28 Open Access Same-Time Information System (OASIS):**

The information system and standards of conduct contained in Part 37 and Part 38 of the Commission's regulations and all additional requirements implemented by subsequent Commission orders dealing with OASIS.

**1.28A Operating Agreement of the PJM Interconnection, L.L.C. or Operating Agreement:**

That agreement dated as of April 1, 1997 and as amended and restated as of June 2, 1997 and as amended from time to time thereafter, among the members of the PJM Interconnection, L.L.C.

**1.28A.01 Option to Build:**

The option of the New Service Customer to build certain Customer-Funded Upgrades, as set forth in, and subject to the terms of, the Construction Service Agreement.

**1.28B Optional Interconnection Study:**

A sensitivity analysis of an Interconnection Request based on assumptions specified by the Interconnection Customer in the Optional Interconnection Study Agreement.

**1.28C Optional Interconnection Study Agreement:**

The form of agreement for preparation of an Optional Interconnection Study, as set forth in Attachment N-3 of the Tariff.

**1.29 Part I:**

Tariff Definitions and Common Service Provisions contained in Sections 2 through 12.

**1.30 Part II:**

Tariff Sections 13 through 27 pertaining to Point-To-Point Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**1.31 Part III:**

Tariff Sections 28 through 35 pertaining to Network Integration Transmission Service in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**1.31A Part IV:**

Tariff Sections 36 through 112 pertaining to generation or merchant transmission interconnection to the Transmission System in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**1.31B Part V:**

Tariff Sections 113 through 122 pertaining to the deactivation of generating units in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**1.31C Part VI:**

Tariff Sections 200 through 237 pertaining to the queuing, study, and agreements relating to New Service Requests, and the rights associated with Customer-Funded Upgrades in conjunction with the applicable Common Service Provisions of Part I and appropriate Schedules and Attachments.

**1.32 Parties:**

The Transmission Provider, as administrator of the Tariff, and the Transmission Customer receiving service under the Tariff. PJMSettlement shall be the Counterparty to Transmission Customers.

**1.32.01 PJM:**

PJM Interconnection, L.L.C.

**1.32A PJM Administrative Service:**

The services provided by PJM pursuant to Schedule 9 of this Tariff.

**1.32B PJM Control Area:**

The Control Area that is recognized by NERC as the PJM Control Area.

**1.32C PJM Interchange Energy Market:**

The regional competitive market administered by the Transmission Provider for the purchase and sale of spot electric energy at wholesale interstate commerce and related services, as more fully set forth in Attachment K – Appendix to the Tariff and Schedule 1 to the Operating Agreement.

**1.32D PJM Manuals:**

The instructions, rules, procedures and guidelines established by the Transmission Provider for the operation, planning, and accounting requirements of the PJM Region and the PJM Interchange Energy Market.

**1.32E PJM Region:**

Shall have the meaning specified in the Operating Agreement.

**1.32F [RESERVED]**

**1.32.F.01 PJMSettlement:**

PJM Settlement, Inc. (or its successor).

**1.32G [RESERVED]**

**1.33 Point(s) of Delivery:**

Point(s) on the Transmission Provider's Transmission System where capacity and energy transmitted by the Transmission Provider will be made available to the Receiving Party under Part II of the Tariff. The Point(s) of Delivery shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**1.33A Point of Interconnection:**

The point or points, shown in the appropriate appendix to the Interconnection Service Agreement and the Interconnection Construction Service Agreement, where the Customer Interconnection Facilities interconnect with the Transmission Owner Interconnection Facilities or the Transmission System.

**1.34 Point(s) of Receipt:**

Point(s) of interconnection on the Transmission Provider's Transmission System where capacity and energy will be made available to the Transmission Provider by the Delivering Party under Part II of the Tariff. The Point(s) of Receipt shall be specified in the Service Agreement for Long-Term Firm Point-To-Point Transmission Service.

**1.35 Point-To-Point Transmission Service:**

The reservation and transmission of capacity and energy on either a firm or non-firm basis from the Point(s) of Receipt to the Point(s) of Delivery under Part II of the Tariff.

**1.36 Power Purchaser:**

The entity that is purchasing the capacity and energy to be transmitted under the Tariff.

**1.36.01 PRD Curve:**

PRD Curve shall have the meaning provided in the Reliability Assurance Agreement.

**1.36.02 PRD Provider:**

PRD Provider shall have the meaning provided in the Reliability Assurance Agreement.

**1.36.03 PRD Reservation Price:**

PRD Reservation Price shall have the meaning provided in the Reliability Assurance Agreement.

**1.36.04 PRD Substation:**

PRD Substation shall have the meaning provided in the Reliability Assurance Agreement.

### **1.36.05 Pre-Confirmed Application:**

An Application that commits the Eligible Customer to execute a Service Agreement upon receipt of notification that the Transmission Provider can provide the requested Transmission Service.

### **1.36A Pre-Expansion PJM Zones:**

Zones included in this Tariff, along with applicable Schedules and Attachments, for certain Transmission Owners – Atlantic City Electric Company, Baltimore Gas and Electric Company, Delmarva Power and Light Company, Jersey Central Power and Light Company, Metropolitan Edison Company, PECO Energy Company, Pennsylvania Electric Company, Pennsylvania Power & Light Group, Potomac Electric Power Company, Public Service Electric and Gas Company, Allegheny Power, and Rockland Electric Company.

#### **1.36A.01 Price Responsive Demand:**

Price Responsive Demand shall have the meaning provided in the Reliability Assurance Agreement.

#### **1.36A.02 Project Financing:**

Shall mean: (a) one or more loans, leases, equity and/or debt financings, together with all modifications, renewals, supplements, substitutions and replacements thereof, the proceeds of which are used to finance or refinance the costs of the Customer Facility, any alteration, expansion or improvement to the Customer Facility, the purchase and sale of the Customer Facility or the operation of the Customer Facility; (b) a power purchase agreement pursuant to which Interconnection Customer's obligations are secured by a mortgage or other lien on the Customer Facility; or (c) loans and/or debt issues secured by the Customer Facility.

#### **1.36A.03 Project Finance Entity:**

Shall mean: (a) a holder, trustee or agent for holders, of any component of Project Financing; or (b) any purchaser of capacity and/or energy produced by the Customer Facility to which Interconnection Customer has granted a mortgage or other lien as security for some or all of Interconnection Customer's obligations under the corresponding power purchase agreement.

### **1.36B Queue Position:**

The priority assigned to an Interconnection Request, a Completed Application, or an Upgrade Request pursuant to applicable provisions of Part VI.

### **1.36C Reasonable Efforts:**

With respect to any action required to be made, attempted, or taken by an Interconnection Party or by a Construction Party under Part IV or Part VI of the Tariff, an Interconnection Service



Agreement, or a Construction Service Agreement, such efforts as are timely and consistent with Good Utility Practice and with efforts that such party would undertake for the protection of its own interests.

**1.37 Receiving Party:**

The entity receiving the capacity and energy transmitted by the Transmission Provider to Point(s) of Delivery.

**1.37A.01 Regional Entity:**

Shall have the same meaning specified in the Operating Agreement.

**1.37A Regional Transmission Expansion Plan:**

The plan prepared by the Office of the Interconnection pursuant to Schedule 6 of the Operating Agreement for the enhancement and expansion of the Transmission System in order to meet the demands for firm transmission service in the PJM Region.

**1.38 Regional Transmission Group (RTG):**

A voluntary organization of transmission owners, transmission users and other entities approved by the Commission to efficiently coordinate transmission planning (and expansion), operation and use on a regional (and interregional) basis.

**1.38.01 Regulation Zone:**

Any of those one or more geographic areas, each consisting of a combination of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, regulation service.

**1.38.01A Relevant Electric Retail Regulatory Authority:**

An entity that has jurisdiction over and establishes prices and policies for competition for providers of retail electric service to end-customers, such as the city council for a municipal utility, the governing board of a cooperative utility, the state public utility commission or any other such entity.

**1.38A Reliability Assurance Agreement:**

The Reliability Assurance Agreement Among Load Serving Entities in the PJM Region, Rate Schedule No. 44, dated as of May 28, 2009, and as amended from time to time thereafter.

**1.38B [RESERVED]**

**1.38C Required Transmission Enhancements:**

Enhancements and expansions of the Transmission System that (1) a Regional Transmission Expansion Plan developed pursuant to Schedule 6 of the Operating Agreement or (2) the Coordinated System Plan periodically developed pursuant to the Joint Operating Agreement Between the Midwest Independent Transmission System Operator, Inc. and PJM Interconnection, L.L.C. designates one or more of the Transmission Owner(s) or the transmission owners within the Midwest Independent System Operator to construct and own or finance.

**1.38C.01 Reserve Sub-zone:**

Any of those geographic areas wholly contained within a Reserve Zone, consisting of a combination of a portion of one or more Control Zone(s) as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**1.38D Reserve Zone:**

Any of those geographic areas consisting of a combination of one or more Control Zone(s), as designated by the Office of the Interconnection in the PJM Manuals, relevant to provision of, and requirements for, reserve service.

**1.39 Reserved Capacity:**

The maximum amount of capacity and energy that the Transmission Provider agrees to transmit for the Transmission Customer over the Transmission Provider's Transmission System between the Point(s) of Receipt and the Point(s) of Delivery under Part II of the Tariff. Reserved Capacity shall be expressed in terms of whole megawatts on a sixty (60) minute interval (commencing on the clock hour) basis.

**1.39A Schedule of Work:**

Shall mean that schedule attached to the Interconnection Construction Service Agreement setting forth the timing of work to be performed by the Constructing Entity pursuant to the Interconnection Construction Service Agreement, based upon the Facilities Study and subject to modification, as required, in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

**1.39B Scope of Work:**

Shall mean that scope of the work attached as a schedule to the Interconnection Construction Service Agreement and to be performed by the Constructing Entity(ies) pursuant to the Interconnection Construction Service Agreement, provided that such Scope of Work may be modified, as required, in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

**1.39C Secondary Systems:**

Control or power circuits that operate below 600 volts, AC or DC, including, but not limited to, any hardware, control or protective devices, cables, conductors, electric raceways, secondary equipment panels, transducers, batteries, chargers, and voltage and current transformers.

**1.39D Security:**

The security provided by the New Service Customer pursuant to Section 212.4 or Section 213.4 of the Tariff to secure the New Service Customer's responsibility for Costs under the Interconnection Service Agreement or Upgrade Construction Service Agreement and Section 217 of the Tariff.

**1.40 Service Agreement:**

The initial agreement and any amendments or supplements thereto entered into by the Transmission Customer and the Transmission Provider for service under the Tariff.

**1.41 Service Commencement Date:**

The date the Transmission Provider begins to provide service pursuant to the terms of an executed Service Agreement, or the date the Transmission Provider begins to provide service in accordance with Section 15.3 or Section 29.1 under the Tariff.

**1.42 Short-Term Firm Point-To-Point Transmission Service:**

Firm Point-To-Point Transmission Service under Part II of the Tariff with a term of less than one year.

**1.42a Site:**

All of the real property, including but not limited to any leased real property and easements, on which the Customer Facility is situated and/or on which the Customer Interconnection Facilities are to be located.

**1.42.01 Small Inverter Facility:**

An Energy Resource that is a certified small inverter-based facility no larger than 10 kW.

**1.42.02 Small Inverter ISA:**

An agreement among Transmission Provider, Interconnection Customer, and Interconnected Transmission Owner regarding interconnection of a Small Inverter Facility under section 112B of Part IV of the Tariff.

**1.42A [RESERVED]**

**1.42B [RESERVED]**

**1.42C [RESERVED]**

**1.42D State:**

The term “state” shall mean a state of the United States or the District of Columbia.

**1.42D.01 Switching and Tagging Rules:**

The switching and tagging procedures of Interconnected Transmission Owners and Interconnection Customer as they may be amended from time to time.

**1.42E [RESERVED]**

**1.42F System Condition:**

A specified condition on the Transmission Provider’s system or on a neighboring system, such as a constrained transmission element or flowgate, that may trigger Curtailment of Long-Term Firm Point-to-Point Transmission Service using the curtailment priority pursuant to Section 13.6. Such conditions must be identified in the Transmission Customer’s Service Agreement.

**1.43 System Impact Study:**

An assessment by the Transmission Provider of (i) the adequacy of the Transmission System to accommodate a Completed Application, an Interconnection Request or an Upgrade Request, (ii) whether any additional costs may be incurred in order to provide such transmission service or to accommodate an Interconnection Request, and (iii) with respect to an Interconnection Request, an estimated date that an Interconnection Customer’s Customer Facility can be interconnected with the Transmission System and an estimate of the Interconnection Customer’s cost responsibility for the interconnection; and (iv) with respect to an Upgrade Request, the estimated cost of the requested system upgrades or expansion, or of the cost of the system upgrades or expansion, necessary to provide the requested incremental rights.

**1.43.01 System Protection Facilities:**

The equipment required to protect (i) the Transmission System, other delivery systems and/or other generating systems connected to the Transmission System from faults or other electrical disturbance occurring at or on the Customer Facility, and (ii) the Customer Facility from faults or other electrical system disturbance occurring on the Transmission System or on other delivery systems and/or other generating systems to which the Transmission System is directly or indirectly connected. System Protection Facilities shall include such protective and regulating devices as are identified in the Applicable Technical Requirements and Standards or that are required by Applicable Laws and Regulations or other Applicable Standards, or as are otherwise necessary to protect personnel and equipment and to minimize deleterious effects to the Transmission System arising from the Customer Facility.

**1.43A Tariff:**

This document, the “PJM Open Access Transmission Tariff.”

**1.44 Third-Party Sale:**

Any sale for resale in interstate commerce to a Power Purchaser that is not designated as part of Network Load under the Network Integration Transmission Service but not including a sale of energy through the PJM Interchange Energy Market established under the PJM Operating Agreement.

**1.45 Transmission Customer:**

Any Eligible Customer (or its Designated Agent) that (i) executes a Service Agreement, or (ii) requests in writing that the Transmission Provider file with the Commission, a proposed unexecuted Service Agreement to receive transmission service under Part II of the Tariff. This term is used in the Part I Common Service Provisions and in Part VI to include customers receiving transmission service under Part II and Part III of this Tariff.

**1.45.01 Transmission Facilities:**

Transmission Facilities shall have the meaning set forth in the Operating Agreement.

**1.45A Transmission Injection Rights:**

Capacity Transmission Injection Rights and Energy Transmission Injection Rights.

**1.45B Transmission Interconnection Customer:**

An entity that submits an Interconnection Request to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase the capacity of Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region.

**1.45C Transmission Interconnection Facilities Study:**

A Facilities Study related to a Transmission Interconnection Request.

**1.45D Transmission Interconnection Feasibility Study:**

A study conducted by the Transmission Provider in accordance with Section 36.2 of the Tariff.

**1.45E Transmission Interconnection Request:**

A request by a Transmission Interconnection Customer pursuant to Part IV of the Tariff to interconnect or add Merchant Transmission Facilities to the Transmission System or to increase

the capacity of existing Merchant Transmission Facilities interconnected with the Transmission System in the PJM Region.

**1.45F Transmission Owner:**

Each entity that owns, leases or otherwise has a possessory interest in facilities used for the transmission of electric energy in interstate commerce under the Tariff. The Transmission Owners are listed in Attachment L.

**1.45G Transmission Owner Attachment Facilities:**

That portion of the Transmission Owner Interconnection Facilities comprised of all Attachment Facilities on the Interconnected Transmission Owner's side of the Point of Interconnection.

**1.45H Transmission Owner Interconnection Facilities:**

All Interconnection Facilities that are not Customer Interconnection Facilities and that, after the transfer under Section 5.5 of Appendix 2 to Attachment P of the PJM Tariff to the Interconnected Transmission Owner of title to any Transmission Owner Interconnection Facilities that the Interconnection Customer constructed, are owned, controlled, operated and maintained by the Interconnected Transmission Owner on the Interconnected Transmission Owner's side of the Point of Interconnection identified in appendices to the Interconnection Service Agreement and to the Interconnection Construction Service Agreement, including any modifications, additions or upgrades made to such facilities and equipment, that are necessary to physically and electrically interconnect the Customer Facility with the Transmission System or interconnected distribution facilities.

**1.46 Transmission Provider:**

The Transmission Provider shall be the Office of the Interconnection for all purposes, provided that the Transmission Owners will have the responsibility for the following specified activities:

- (a) The Office of the Interconnection shall direct the operation and coordinate the maintenance of the Transmission System, except that the Transmission Owners will continue to direct the operation and maintenance of those transmission facilities that are not listed in the PJM Designated Facilities List contained in the PJM Manual on Transmission Operations;
- (b) Each Transmission Owner shall physically operate and maintain all of the facilities that it owns; and
- (c) When studies conducted by the Office of the Interconnection indicate that enhancements or modifications to the Transmission System are necessary, the Transmission Owners shall have the responsibility, in accordance with the applicable terms of the Tariff, Operating Agreement and/or the Consolidated Transmission Owners Agreement to construct, own, and finance the needed facilities or enhancements or modifications to facilities.

**1.47 Transmission Provider's Monthly Transmission System Peak:**

The maximum firm usage of the Transmission Provider's Transmission System in a calendar month.

**1.48 Transmission Service:**

Point-To-Point Transmission Service provided under Part II of the Tariff on a firm and non-firm basis.

**1.48A Transmission Service Request:**

A request for Firm Point-To-Point Transmission Service or a request for Network Integration Transmission Service.

**1.49 Transmission System:**

The facilities controlled or operated by the Transmission Provider within the PJM Region that are used to provide transmission service under Part II and Part III of the Tariff.

**1.49A Transmission Withdrawal Rights:**

Firm Transmission Withdrawal Rights and Non-Firm Transmission Withdrawal Rights.

**1.49A.01 Upgrade Construction Service Agreement:**

That agreement entered into by a New Service Customer (other than an Interconnection Customer whose project includes generation capability or Merchant Transmission Facilities other than Merchant Network Upgrades), a Transmission Owner, and the Transmission Provider, pursuant to Subpart B of Part VI of the Tariff, and in the form set forth in Attachment GG of the Tariff.

**1.49A.02 Upgrade Customer:**

A customer that submits an Upgrade Request.

**1.49A.03 Upgrade-Related Rights:**

Incremental Auction Revenue Rights, Incremental Available Transfer Capability Revenue Rights, Incremental Deliverability Rights, and Incremental Capacity Transfer Rights (as defined in Section 2.35 of Attachment DD of the Tariff).

**1.49A.04 Upgrade Request:**

A request pursuant to Section 7.8 of Schedule 1 of the Operating Agreement, submitted in the form prescribed in Attachment EE of the Tariff, for evaluation by the Transmission Provider of

the feasibility and estimated costs of, (a) a particular proposed Customer-Funded Upgrade or (b) the Customer-Funded Upgrades that would be needed to provide the Incremented Auction Revenue Rights specified in the request.

**1.49B [RESERVED]**

**1.49C [RESERVED]**

**1.49D [RESERVED]**

**1.49E [RESERVED]**

**1.49F [RESERVED]**

**1.49G Wholesale Transaction:**

As used in Part IV, means any transaction involving the transmission or sale for resale of electricity in interstate commerce that utilizes any portion of the Transmission System.

**1.49H Zone:**

An area within the PJM Region, as set forth in Attachment J.

**1.50 Zone Network Load:**

Network Load that is located inside of the area comprised of the PJM Region.



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## **APPENDIX 2**

### **STANDARD TERMS AND CONDITIONS FOR INTERCONNECTIONS**

## **1 Commencement, Term of and Conditions Precedent to Interconnection Service**

### **1.1 Commencement Date:**

The effective date of an Interconnection Service Agreement shall be the date provided in Section 4.0 of the Interconnection Service Agreement. Interconnection Service under this Interconnection Service Agreement shall commence upon the satisfaction of the conditions precedent set forth in Section 1.2 below.

### **1.2 Conditions Precedent:**

The following conditions must be satisfied prior to the commencement of Interconnection Service under this Interconnection Service Agreement:

(a) This Interconnection Service Agreement, if filed with FERC, shall have been accepted for filing by the FERC;

(b) All requirements for Initial Operation as specified in Section 1.4 below shall have been met and Initial Operation of the Customer Facility shall have been completed.

(c) Interconnection Customer shall be in compliance with all Applicable Technical Requirements and Standards for interconnection under the Tariff (as determined by the Transmission Provider).

### **1.3 Term:**

This Interconnection Service Agreement shall remain in full force and effect until it is terminated in accordance with Section 16 of this Appendix 2.

### **1.4 Initial Operation:**

The following requirements shall be satisfied prior to Initial Operation of the Customer Facility:

**1.4.1** The construction of all Interconnection Facilities necessary for the interconnection of the Customer Facility has been completed;

**1.4.2** The Interconnected Transmission Owner has accepted any Interconnection Facilities and/or Merchant Network Upgrades constructed by Interconnection Customer pursuant to the Interconnection Construction Service Agreement;

**1.4.3** The Interconnection Customer and the Interconnected Transmission Owner have all necessary systems and personnel in place to allow for parallel operation of their respective facilities;

**1.4.4** The Interconnected Transmission Owner has received all applicable documentation for the Interconnection Facilities and/or Merchant Network Upgrades built by the Interconnection Customer, certified as correct, including, but not limited to, access to the field copy of marked-

up drawings reflecting the as-built condition, pre-operation test reports, and instruction books; and

**1.4.5** Interconnection Customer shall have received any necessary authorization from Transmission Provider to synchronize with the Transmission System or to energize, as applicable per the determination of Transmission Provider, the Customer Facility and Interconnection Facilities.

**1.4A Limited Operation:**

If any of the Transmission Owner Interconnection Facilities are not reasonably expected to be completed prior to the Interconnection Customer's planned date of Initial Operation, and provided that the Interconnected Transmission Owner has accepted the Customer Interconnection Facilities pursuant to the Interconnection Construction Service Agreement, Transmission Provider shall, upon the request and at the expense of Interconnection Customer, perform appropriate power flow or other operating studies on a timely basis to determine the extent to which the Customer Facility and the Customer Interconnection Facilities may operate prior to the completion of the Transmission Owner Interconnection Facilities consistent with Applicable Laws and Regulations, Applicable Reliability Standards, Good Utility Practice, and the Interconnection Service Agreement. In accordance with the results of such studies and subject to such conditions as Transmission Provider determines to be reasonable and appropriate, Transmission Provider shall (a) permit Interconnection Customer to operate the Customer Facility and the Customer Interconnection Facilities, and (b) grant Interconnection Customer limited, interim Interconnection Rights commensurate with the extent to which operation of the Customer Facility is permitted.

**1.5 Survival:**

The Interconnection Service Agreement shall continue in effect after termination to the extent necessary to provide for final billings and payments; to permit the determination and enforcement of liability and indemnification obligations arising from acts or events that occurred while the Interconnection Service Agreement was in effect; and to permit each Interconnection Party to have access to the real property, including but not limited to leased property and easements of the other Interconnection Parties pursuant to Section 16 of this Appendix 2 to disconnect, remove or salvage its own facilities and equipment.

**2 Interconnection Service**

**2.1 Scope of Service:**

Interconnection Service shall be provided to the Interconnection Customer at the Point of Interconnection (a), in the case of interconnection of the Customer Facility of a Generation Interconnection Customer, up to the Maximum Facility Output, and (b), in the case of interconnection of the Customer Facility of a Transmission Interconnection Customer, up to the Nominal Rated Capability. The location of the Point of Interconnection shall be mutually agreed by the Interconnected Entities, provided, however, that if the Interconnected Entities are unable

to agree on the Point of Interconnection, the Transmission Provider shall determine the Point of Interconnection, provided that Transmission Provider shall not select a Point of Interconnection that would impose excessive costs on either of the Interconnected Entities and shall take material system reliability considerations into account in such selection. Specifications for the Customer Facility and the location of the Point of Interconnection shall be set forth in an appendix to the Interconnection Service Agreement and shall conform to those stated in the Facilities Study.

## **2.2 Non-Standard Terms:**

The standard terms and conditions of this Appendix 2 shall not apply, to such extent as Transmission Provider determines to be reasonably necessary to accommodate such circumstances, in the event that the Interconnection Customer acquires an ownership interest in facilities which, under the standard terms and conditions of the Interconnection Construction Service Agreement would be part of the Transmission Owner Interconnection Facilities. In such circumstances and to the extent determined by Transmission Provider to be reasonably necessary, non-standard terms and conditions mutually agreed upon by all Interconnection Parties shall apply, subject to FERC and any other necessary regulatory acceptance or approval. In addition, a Generation Interconnection Customer that acquires an ownership interest in such facilities shall become, and shall remain for so long as it retains such interest, a signatory to the Consolidated Transmission Owners Agreement.

## **2.3 No Transmission Services:**

The execution of an Interconnection Service Agreement does not constitute a request for transmission service, or entitle Interconnection Customer to receive transmission service, under Part II or Part III of the Tariff. Nor does the execution of an Interconnection Service Agreement obligate the Interconnected Transmission Owner or Transmission Provider to procure, supply or deliver to Interconnection Customer or the Customer Facility any energy, capacity, Ancillary Services or Station Power (and any associated distribution services).

## **2.4 Use of Distribution Facilities:**

To the extent that a Generation Interconnection Customer uses distribution facilities for the purpose of delivering energy to the Transmission System, Interconnection Service under this Tariff shall include the construction and/or use of such distribution facilities. In such cases, to such extent as Transmission Provider determines to be reasonably necessary to accommodate such circumstances, the Interconnection Service Agreement may include non-standard terms and conditions mutually agreed upon by all Interconnection Parties as needed to conform with Applicable Laws and Regulations and Applicable Standards relating to such distribution facilities.

## **2.5 Election by Behind The Meter Generation:**

In the event that a Generation Interconnection Customer's Customer Facility is Behind The Meter Generation, the Generation Interconnection Customer may elect from time to time, subject

to the terms of this section, whether to operate all or a portion of its Customer Facility's generating capacity as a Capacity Resource under the Tariff and the Operating Agreement.

### **2.5.1 Capacity Resource Election:**

The Generation Interconnection Customer may elect to operate all or a portion of its Customer Facility as a Capacity Resource only to the extent that the Interconnection Service Agreement grants Capacity Interconnection Rights. Such an election may include all or any portion of the Customer Facility's capacity for which Capacity Interconnection Rights have been granted.

### **2.5.2 Timing and Duration of Election:**

The Generation Interconnection Customer shall make an initial election under this section no later than 30 days prior to the commencement of Interconnection Service. Thereafter, the Generation Interconnection Customer may make the election authorized by this Section 2.5 only once in each calendar year and must notify Transmission Provider of such an election no later than May 1, and no sooner than March 15, of each year. Each such election shall be effective commencing on June 1 following Transmission Provider's receipt of notice of the election. An election under this Section 2.5 shall remain in effect unless and until the Generation Interconnection Customer modifies or terminates it in a subsequent election made in accordance with the terms of this section.

## **3 Modification Of Facilities**

### **3.1 General:**

Subject to Applicable Laws and Regulations and to any applicable requirements or conditions of the Tariff and the Operating Agreement, either Interconnected Entity may undertake modifications to its facilities. In the event that an Interconnected Entity plans to undertake a modification that reasonably may be expected upon completion to have a permanent material impact on the other Interconnected Entity's facilities, that Interconnected Entity, in accordance with Good Utility Practice, shall provide the other Interconnection Parties with sufficient information regarding such modification, so that the other Interconnection Parties may evaluate the potential impact of such modification prior to commencement of the work. The Interconnected Entity desiring to perform such modification shall provide the relevant drawings, plans, and specifications to the other Interconnection Parties at least ninety days, or such shorter period to which the Interconnection Parties receiving the information may agree (which agreement shall not unreasonably be withheld, conditioned, or delayed), in advance of the beginning of the work. The Interconnection Customer shall notify Transmission Provider and Interconnected Transmission Owner of the proposed modifications and Transmission Provider shall provide, within sixty days of receipt of the relevant drawings and specifications (or within such other time upon which the Interconnection Parties may agree), an estimate of any modifications to the Transmission System that would be necessary to accommodate the proposed modifications by Interconnection Customer and a good faith estimate of the costs thereof.

### **3.2 Interconnection Request:**

This Section 3 shall not apply to any proposed modifications by Interconnection Customer to its facilities for which Interconnection Customer must make an Interconnection Request under the Tariff. In such circumstances, the Interconnection Customer and Transmission Provider shall follow the requirements of Subpart A of Part IV of the Tariff.

### **3.3 Standards:**

Any additions, modifications, or replacements made to an Interconnected Entity's facilities shall be constructed and operated in accordance with Good Utility Practice, Applicable Standards and Applicable Laws and Regulations.

### **3.4 Modification Costs:**

Unless otherwise required by Applicable Laws and Regulations or this Appendix 2 and, with respect to a Transmission Interconnection Customer, subject to the terms of Section 236.2 of the Tariff:

(a) Interconnection Customer shall not be responsible for the costs of any additions, modifications, or replacements that the Interconnected Transmission Owner in its discretion or at the direction of Transmission Provider makes to the Interconnection Facilities or the Transmission System in order to facilitate the interconnection of a third party to the Interconnection Facilities or the Transmission System, or to provide transmission service under the Tariff to a third party.

(b) Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Interconnection Facilities or the Transmission System that are required, in accord with Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, in order to accommodate additions, modifications, or replacements made by Interconnection Customer to the Customer Facility or to the Customer Interconnection Facilities.

(c) Interconnection Customer shall be responsible for the costs of any additions, modifications, or replacements to the Customer Interconnection Facilities or the Customer Facility that are required, in accord with Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards, in order to accommodate additions, modifications, or replacements that Transmission Provider or the Interconnected Transmission Owner makes to the Transmission System or to the Transmission Owner Interconnection Facilities, but only to the extent that Transmission Provider's or the Interconnected Transmission Owner's changes to the Transmission System or the Transmission Owner Interconnection Facilities are made pursuant to Good Utility Practice and/or to maintain compliance with Applicable Laws and Regulations or Applicable Standards.

## **4 Operations**

### **4.1 General:**

Each Interconnected Entity shall operate, or shall cause operation of, its facilities in a safe and reliable manner in accord with (i) the terms of this Appendix 2; (ii) Applicable Standards; (iii) applicable rules, procedures and protocols set forth in the Tariff and the Operating Agreement, as any or all may be amended from time to time; (iv) Applicable Laws and Regulations, and (v) Good Utility Practice.

#### **4.1.1 Interconnection Customer Drawings:**

Within one hundred twenty (120) days after the date of Initial Operation, unless the Interconnection Parties agree on another mutually acceptable deadline, the Interconnection Customer shall deliver to the Transmission Provider and the Interconnected Transmission Owner final, "as-built" drawings, information and documents regarding the Customer Interconnection Facilities, including, as and to the extent applicable: a one-line diagram, a site plan showing the Customer Facility and the Customer Interconnection Facilities, plan and elevation drawings showing the layout of the Customer Interconnection Facilities, a relay functional diagram, relaying AC and DC schematic wiring diagrams and relay settings for all facilities associated with the Interconnection Customer's step-up transformers, the facilities connecting the Customer Facility to the step-up transformers and the Customer Interconnection Facilities, and the impedances (determined by factory tests) for the associated step-up transformers and the Customer Facility. As applicable, the Interconnection Customer shall provide Transmission Provider and the Interconnected Transmission Owner specifications for the excitation system, automatic voltage regulator, Customer Facility control and protection settings, transformer tap settings, and communications.

#### **4.2 Operation of Merchant Network Upgrades:**

Unless otherwise provided in the Interconnection Service Agreement, the Interconnected Transmission Owner that owns Transmission System facilities to which any Merchant Network Upgrades are connected shall operate such Merchant Network Upgrades (a) on behalf and at the expense of the Interconnection Customer that constructed or caused construction of the pertinent Merchant Network Upgrades and (b) in accordance with this Appendix 2 and with an agreement between the Interconnected Transmission Owner and the Interconnection Customer regarding such operation.

#### **4.3 Interconnection Customer Obligations:**

Interconnection Customer shall obtain Transmission Provider's approval prior to either synchronizing with the Transmission System or energizing, as applicable per the determination of Transmission Provider, the Customer Facility or, except in an Emergency Condition, disconnecting the Customer Facility from the Transmission System, and shall coordinate such synchronizations, energizations, and disconnections with the Interconnected Transmission Owner.

#### **4.4 [Reserved.]**

#### **4.5 Permits and Rights-of-Way:**

Each Interconnected Entity at its own expense shall maintain in full force and effect all permits, licenses, rights-of-way and other authorizations as may be required to maintain the Customer Facility and the Interconnection Facilities that the entity owns, operates and maintains and, upon reasonable request of the other Interconnected Entity, shall provide copies of such permits, licenses, rights-of-way and other authorizations at its own expense to the requesting party.

#### **4.6 No Ancillary Services:**

Except as provided in Section 4.7 of this Appendix 2, nothing in this Appendix 2 is intended to obligate the Interconnection Customer to supply Ancillary Services to either Transmission Provider or the Interconnected Transmission Owner.

#### **4.7 Reactive Power**

##### **4.7.1 Reactive Power Design Criteria**

###### **4.7.1.1 New Facilities:**

For all new generating facilities to be interconnected pursuant to the Tariff, other than wind-powered and other non-synchronous generation facilities, the Generation Interconnection Customer shall design its Customer Facility to maintain a composite power delivery at continuous rated power output at a power factor of at least 0.95 leading to 0.90 lagging. For all new wind-powered and other non-synchronous generation facilities, if determined in the system impact study to be required for the safety or reliability of the Transmission System, the Generation Interconnection Customer shall design its Customer Facility with the ability to maintain a composite power delivery at continuous rated power output at a power factor of at least 0.95 leading to 0.95 lagging. For new generation resources of more than 20 MW, other than wind-powered and other non-synchronous generating facilities, the power factor requirement shall be measured at the generator's terminals. For new generation resources of 20 MW or less, and all wind-powered and other non-synchronous generation facilities, the power factor requirement shall be measured at the Point of Interconnection. Any different reactive power design criteria that Transmission Provider determines to be appropriate for a wind-powered or other non-synchronous generation facility shall be stated in the Interconnection Service Agreement. A Transmission Interconnection Customer interconnecting Merchant D.C. Transmission Facilities and/ or Controllable A.C. Merchant Transmission Facilities shall design its Customer Facility to maintain a power factor at the Point of Interconnection of at least 0.95 leading and 0.95 lagging, when the Customer Facility is operating at any level within its approved operating range.

###### **4.7.1.2 Increases in Generating Capacity or Energy Output:**

All increases in the capacity or energy output of any generation facility interconnected with the Transmission System, other than wind-powered and other non-synchronous generating facilities, shall be designed with the ability to maintain a composite power delivery at continuous rated



power output at a power factor for all incremental MW of capacity or energy output, of at least 1.0 (unity) to 0.90 lagging. Wind-powered generation facilities and other non-synchronous generation facilities, if determined in the System Impact Study to be required for the safety or reliability of the Transmission System, shall be designed with the ability to maintain a composite power delivery at continuous rated power output at a power factor for all incremental MW of capacity or energy output, of at least 1.0 (unity) to 0.95 lagging. The power factor requirement associated with increases in capacity or energy output of more than 20 MW to synchronous generation facilities interconnected with the Transmission System shall be measured at the generator's terminals. The power factor requirement associated with increases in capacity or energy output of 20 MW or less to synchronous generation facilities and all increases to wind-powered and non-synchronous generation facilities interconnected to the Transmission System shall be measured at the Point of Interconnection.

#### **4.7.2 Obligation to Supply Reactive Power:**

Interconnection Customer agrees, as and when so directed by Transmission Provider or when so directed by the Interconnected Transmission Owner acting on behalf or at the direction of Transmission Provider, to operate the Customer Facility to produce reactive power within the design limitations of the Customer Facility pursuant to voltage schedules, reactive power schedules or power factor schedules established by Transmission Provider or, as appropriate, the Interconnected Transmission Owner. Transmission Provider shall maintain oversight over such schedules to ensure that all sources of reactive power in the PJM Region, as applicable, are treated in an equitable and not unduly discriminatory manner. Interconnection Customer agrees that Transmission Provider and the Interconnected Transmission Owner, acting on behalf or at the direction of Transmission Provider, may make changes to the schedules that they respectively establish as necessary to maintain the reliability of the Transmission System.

#### **4.7.3 Deviations from Schedules:**

In the event that operation of the Customer Facility of an Interconnection Customer causes the Transmission System or the Interconnected Transmission Owner's facilities to deviate from appropriate voltage schedules and/or reactive power schedules as specified by Transmission Provider or the Interconnected Transmission Owner's operations control center (acting on behalf or at the direction of Transmission Provider), or that otherwise is inconsistent with Good Utility Practice and results in an unreasonable deterioration of the quality of electric service to other customers of Transmission Provider or the Interconnected Transmission Owner, the Interconnection Customer shall, upon discovery of the problem or upon notice from Transmission Provider or the Interconnected Transmission Owner, acting on behalf or at the direction of Transmission Provider, take whatever steps are reasonably necessary to alleviate the situation at its expense, in accord with Good Utility Practice and within the reactive capability of the Customer Facility. In the event that the Interconnection Customer does not alleviate the situation within a reasonable period of time following Transmission Provider's or the Interconnected Transmission Owner's notice thereof, the Interconnected Transmission Owner, with Transmission Provider's approval, upon notice to the Interconnection Customer and at the Interconnection Customer's expense, may take appropriate action, including installation on the Transmission System of power factor correction or other equipment, as is reasonably required,

consistent with Good Utility Practice, to remedy the situation cited in Transmission Provider's or the Interconnected Transmission Owner's notice to the Interconnection Customer under this section.

#### **4.7.4 Payment for Reactive Power:**

Any payments to the Interconnection Customer for reactive power shall be in accordance with Schedule 2 of the Tariff.

#### **4.8 Under- and Over-Frequency Conditions:**

The Transmission System is designed to automatically activate a load-shed program as required by NERC and each Applicable Regional Entity in the event of an under-frequency system disturbance. A Generation Interconnection Customer shall implement under-frequency and over-frequency relay set points for the Customer Facility as required by NERC and each Applicable Regional Entity to ensure "ride through" capability of the Transmission System. The response of a Generation Interconnection Customer's Customer Facility to frequency deviations of predetermined magnitudes, both under-frequency and over-frequency deviations shall be studied and coordinated with the Transmission Provider in accordance with Good Utility Practice. The term "ride through" as used herein shall mean the ability of a Generation Interconnection Customer's Customer Facility to stay connected to and synchronized with the Transmission System during system disturbances within a range of under-frequency and over-frequency conditions, in accordance with Good Utility Practice.

#### **4.9 Protection and System Quality**

##### **4.9.1 System Protection:**

Interconnection Customer shall, at its expense, install, operate and maintain such System Protection Facilities as may be required in connection with operation of the Customer Facility and the Customer Interconnection Facilities consistent with Applicable Technical Requirements and Standards. Interconnected Transmission Owner shall install any System Protection Facilities that may be required, as determined by Transmission Provider, on the Transmission Owner Interconnection Facilities or the Transmission System in connection with the operation of the Customer Facility and the Customer Interconnection Facilities. Responsibility for the cost of any System Protection Facilities required on the Transmission Owner Interconnection Facilities or the Transmission System shall be allocated as provided in Section 217 of the Tariff.

##### **4.9.2 Power Quality:**

The Customer Facility and Customer Interconnection Facilities shall not cause excessive deviations from the power quality criteria set forth in the Applicable Technical Requirements and Standards.

#### **4.10 Access Rights:**

Each Interconnected Entity shall provide the other Interconnected Entity access to areas under its control as reasonably necessary to permit the other Interconnected Entity to perform its obligations under this Appendix 2, including operation and maintenance obligations. An Interconnected Entity that obtains such access shall comply with all safety rules applicable to the area to which access is obtained. Each Interconnected Entity agrees to inform the other Interconnected Entity's representatives of safety rules applicable to an area.

#### **4.11 Switching and Tagging Rules:**

The Interconnected Entities shall comply with applicable Switching and Tagging Rules in obtaining clearances for work or for switching operations on equipment. Such Switching and Tagging Rules shall be developed in accordance with OSHA standards codified at 29 C.F.R. Part 1910, or successor standards. Each Interconnected Entity shall provide the other Interconnected Entity a copy of its Switching and Tagging Rules that are applicable to the other Interconnected Entity's activities.

#### **4.12 Communications and Data Protocol:**

The Interconnected Entities shall comply with any communications and data protocol that the Transmission Provider may establish.

#### **4.13 Nuclear Generating Facilities:**

In the event that the Customer Facility is a nuclear generating facility, the Interconnection Parties shall agree to such non-standard terms and conditions as are reasonably necessary to accommodate the Interconnection Customer's satisfaction of Nuclear Regulatory Commission requirements relating to the safety and reliability of operations of such facilities.

### **5 Maintenance**

#### **5.1 General:**

Each Interconnected Entity shall maintain, or shall cause the maintenance of, its facilities in a safe and reliable manner in accord with (i) the terms of this Appendix 2; (ii) Applicable Standards; (iii) applicable rules, procedures and protocols set forth in the Tariff and the Operating Agreement, as any or all may be amended from time to time; (iv) Applicable Laws and Regulations, and (v) Good Utility Practice.

#### **5.2 Maintenance of Merchant Network Upgrades:**

Unless otherwise provided in the Interconnection Service Agreement, the Interconnected Transmission Owner that owns Transmission System facilities to which any Merchant Network Upgrades are connected shall maintain such Merchant Network Upgrades (a) on behalf and at the expense of the Interconnection Customer that constructed or caused construction of the pertinent Merchant Network Upgrades and (b) in accordance with this Appendix 2 and with an agreement

between the Interconnected Transmission Owner and the Interconnection Customer regarding such maintenance.

### **5.3 Outage Authority and Coordination**

#### **5.3.1 Coordination:**

The Interconnection Parties agree to confer regularly to coordinate the planning, scheduling and performance of preventive and corrective maintenance on the Customer Facility, the Customer Interconnection Facilities and any Attachment Facilities owned by the Interconnected Transmission Owner.

#### **5.3.2 Authority:**

Each Interconnected Entity may, in accordance with Good Utility Practice, remove from service its facilities that may affect the other Interconnected Entity's facilities in order to perform maintenance or testing or to install or replace equipment. Except in the event of an Emergency Condition, the Interconnection Customer proposing to remove such facilities from service shall provide prior notice of such activities to the Transmission Provider and the Interconnected Transmission Owner, and the Interconnected Entities shall coordinate all scheduling of planned facility outages with Transmission Provider, in accordance with applicable sections of the Operating Agreement, the PJM Manuals and any other applicable operating guidelines or directives of the Transmission Provider. Subject to the foregoing, the Interconnected Entity scheduling a facility outage shall use Reasonable Efforts to coordinate such outage with the other Interconnected Entity's scheduled outages.

#### **5.3.3 Outages Required for Maintenance:**

Subject to any necessary approval by Transmission Provider, each Interconnected Entity shall provide necessary equipment outages to allow the other Interconnected Entity to perform periodic maintenance, repair or replacement of its facilities and such outages shall be provided at mutually agreeable times, unless conditions arise which an Interconnected Entity believes, in accordance with Good Utility Practice, may endanger persons or property.

#### **5.3.4 Rescheduling of Planned Outages:**

To the extent so provided by the Tariff, the Operating Agreement, and the PJM Manuals, an Interconnected Entity may seek compensation from Transmission Provider for any costs related to rejection by Transmission Provider of a request of such Interconnected Entity for a planned maintenance outage.

#### **5.3.5 Outage Restoration:**

If an outage on an Interconnected Entity's facilities adversely affects the other Interconnected Entity's facilities, the Interconnected Entity that owns or controls the facility that is out of service shall use Reasonable Efforts to restore the facility to service promptly.

#### **5.4 Inspections and Testing:**

Each Interconnected Entity shall perform routine inspection and testing of its facilities and equipment in accordance with Good Utility Practice as may be necessary to ensure the continued interconnection of the Customer Facility with the Transmission System in a safe and reliable manner. Each Interconnected Entity shall have the right, upon advance written notice, to request reasonable additional testing of an Interconnected Entity's facilities for good cause, as may be in accordance with Good Utility Practice.

#### **5.5 Right to Observe Testing:**

Each Interconnected Entity shall notify the other Interconnected Entity in advance of its performance of tests of its portion of the Interconnection Facilities or of any Merchant Network Upgrades. The other Interconnected Entity shall, at its own expense, have the right to observe such testing.

#### **5.6 Secondary Systems:**

Each Interconnected Entity agrees to cooperate with the other in the inspection, maintenance, and testing of those Secondary Systems directly affecting the operation of an Interconnected Entity's facilities and equipment which may reasonably be expected to affect the other Interconnected Entity's facilities. Each Interconnected Entity shall provide advance notice to the other Interconnected Entity before undertaking any work on such equipment, especially in electrical circuits involving circuit breaker trip and close contacts, current transformers, or potential transformers.

#### **5.7 Access Rights:**

Each Interconnected Entity shall provide the other Interconnected Entity access to areas under its control as reasonably necessary to permit the other Interconnected Entity to perform its obligations under this Appendix 2, including operation and maintenance obligations. An Interconnected Entity that obtains such access shall comply with all safety rules applicable to the area to which access is obtained. Each Interconnected Entity agrees to inform the other Interconnected Entity's representatives of safety rules applicable to an area.

#### **5.8 Observation of Deficiencies:**

If an Interconnection Party observes any Abnormal Condition on, or becomes aware of a lack of scheduled maintenance and testing with respect to, an Interconnection Party's facilities and equipment that might reasonably be expected to adversely affect the observing Interconnection Party's facilities and equipment, the observing Interconnection Party shall provide prompt notice under the circumstances to the appropriate Interconnection Party, and such Interconnection Party shall consider such notice in accordance with Good Utility Practice. Any Interconnection Party's review, inspection, and approval related to the other Interconnection Party's facilities and equipment shall be limited to the purpose of assessing the safety, reliability, protection and

control of the Transmission System and shall not be construed as confirming or endorsing the design of such facilities and equipment, or as a warranty of any type, including safety, durability or reliability thereof. Notwithstanding the foregoing, the observing Interconnection Party shall have no liability whatsoever for failure to give a deficiency notice to the other Interconnection Party and the Interconnected Entity that owns the relevant Interconnection Facilities shall remain fully liable for its failure to determine and correct deficiencies and defects in its facilities and equipment.

## **6 Emergency Operations**

### **6.1 Obligations:**

Subject to Applicable Laws and Regulations, each Interconnection Party shall comply with the Emergency Condition procedures of NERC, the Applicable Regional Entity, Transmission Provider, the Interconnected Transmission Owner and Interconnection Customer.

### **6.2 Notice:**

Each Interconnection Party shall notify the other parties promptly when it becomes aware of an Emergency Condition that may reasonably be expected to affect operation of the Customer Facility, the Customer Interconnection Facilities, the Transmission Owner Interconnection Facilities, or the Transmission System. To the extent information is known, the notification shall describe the Emergency Condition, the extent of the damage or deficiency, the expected effect on the facilities and/or operation thereof, its anticipated duration and the corrective action taken and/or to be taken. The initial notice shall be followed as soon as practicable with written notice.

### **6.3 Immediate Action:**

An Interconnection Party becoming aware of an Emergency Condition may take such action, including disconnection of the Customer Facility from the Transmission System, as is reasonable and necessary in accord with Good Utility Practice (i) to prevent, avoid, or mitigate injury or danger to, or loss of, life or property; (ii) to preserve the reliability of, in the case of Interconnection Customer, the Customer Facility, or, in the case of Transmission Provider or the Interconnected Transmission Owner, the Transmission System and interconnected sub-transmission and distribution facilities; or (iii) to expedite restoration of service. Unless, in Interconnection Customer's reasonable judgment, immediate action is required to prevent imminent loss of life or property, Interconnection Customer shall obtain the consent of Transmission Provider and the Interconnected Transmission Owner prior to performing any manual switching operations at the Customer Facility or the Generation Interconnection Facilities. Each Interconnection Party shall use Reasonable Efforts to minimize the effect of its actions during an Emergency Condition on the facilities and operations of the other Interconnection Parties.

### **6.4 Record-Keeping Obligations:**

Each Interconnection Party shall keep and maintain records of actions taken during an Emergency Condition that may reasonably be expected to affect the other parties' facilities and make such records available for audit in accordance with Section 19.3 of this Appendix 2.

## **7 Safety**

### **7.1 General:**

Each Interconnected Entity shall perform all work under this Appendix 2 that may reasonably be expected to affect the other Interconnected Entity in accordance with Good Utility Practice and all Applicable Laws and Regulations pertaining to the safety of persons or property. An Interconnected Entity performing work within the boundaries of the other Interconnected Entity's facilities must abide by the safety rules applicable to the site. Each party agrees to inform the other party's representatives of applicable safety rules that must be obeyed on the premises.

### **7.2 Environmental Releases:**

Each Interconnected Entity shall notify the other Interconnection Parties, first orally and promptly thereafter in writing, of the release of any Hazardous Substances, any asbestos or lead abatement activities, or any type of remediation activities, related to the Customer Facility or the Interconnection Facilities, any of which may reasonably be expected to affect one or both of the other parties. The notifying party shall (i) provide the notice as soon as possible; (ii) make a good faith effort to provide the notice within twenty-four (24) hours after the party becomes aware of the occurrence; and (iii) promptly furnish to the other parties copies of any publicly available reports filed with any governmental agencies addressing such events.

## **8 Metering**

### **8.1 General:**

Interconnection Customer shall have the right to install, own, operate, test and maintain the necessary Metering Equipment. In the event that Interconnection Customer exercises this option, the Interconnected Transmission Owner shall have the right to install its own check meter(s), at its own expense, at or near the location of the Metering Equipment. If both Interconnection Customer and Interconnected Transmission Owner install meters, the meter installed by the Interconnection Customer shall control unless it is determined by testing to be inaccurate. If the Interconnection Customer does not exercise the option provided by the first sentence of this section, the Interconnected Transmission Owner shall have the option to install, own, operate, test and maintain all necessary Metering Equipment at Interconnection Customer's expense. If the Interconnected Transmission Owner does not exercise this option, the Interconnection Customer shall install, own, operate, test and maintain all necessary Metering Equipment. Transmission Provider shall determine the location where the Metering Equipment shall be installed, after consulting with Interconnection Customer and the Interconnected Transmission Owner. All Metering Equipment shall be tested prior to any operation of the Customer Facility. Power flows to and from the Customer Facility shall be compensated to the Point of

Interconnection, or, upon the mutual agreement of the Interconnected Transmission Owner and the Interconnection Customer, to another location.

## **8.2 Standards:**

All Metering Equipment installed pursuant to this Appendix 2 to be used for billing and payments shall be revenue quality Metering Equipment and shall satisfy applicable ANSI standards and Transmission Provider's metering standards and requirements. Nothing in this Appendix 2 precludes the use of Metering Equipment for any retail services of the Interconnected Transmission Owner provided, however, that in such circumstances Applicable Laws and Regulations shall control.

## **8.3 Testing of Metering Equipment:**

The Interconnected Entity that, pursuant to Section 8.1 of this Appendix 2, owns the Metering Equipment shall operate, maintain, inspect and test all Metering Equipment upon installation and at least once every two years thereafter. Upon reasonable request by the other Interconnected Entity, the owner of the Metering Equipment shall inspect or test the Metering Equipment more frequently than every two years, but in no event more frequently than three times in any 24-month period. The owner of the Metering Equipment shall give reasonable notice to the Interconnection Parties of the time when any inspection or test of the owner's Metering Equipment shall take place, and the other parties may have representatives present at the test or inspection. If Metering Equipment is found to be inaccurate or defective, it shall be adjusted, repaired or replaced in order to provide accurate metering. Where the Interconnected Transmission Owner owns the Metering Equipment, the expense of such adjustment, repair or replacement shall be borne by the Interconnection Customer, except that the Interconnection Customer shall not be responsible for such expenses where the inaccuracy or defect is caused by the Interconnected Transmission Owner. If Metering Equipment fails to register, or if the measurement made by Metering Equipment during a test varies by more than one percent from the measurement made by the standard meter used in the test, the owner of the Metering Equipment shall inform Transmission Provider, and the Transmission Provider shall inform the other Interconnected Entity, of the need to correct all measurements made by the inaccurate meter for the period during which the inaccurate measurements were made, if the period can be determined. If the period of inaccurate measurement cannot be determined, the correction shall be for the period immediately preceding the test of the Metering Equipment that is equal to one-half of the time from the date of the last previous test of the Metering Equipment, provided that the period subject to correction shall not exceed nine (9) months.

## **8.4 Metering Data:**

At Interconnection Customer's expense, the metered data shall be telemetered (a) to a location designated by Transmission Provider; (b) to a location designated by the Interconnected Transmission Owner, unless the Interconnected Transmission Owner agrees otherwise; and (c) to a location designated by Interconnection Customer. Data from the Metering Equipment at the Point of Interconnection shall be used, under normal operating conditions, as the official measurement of the amount of energy delivered from or to the Customer Facility to the Point of



Interconnection, provided that the Transmission Provider's rules applicable to Station Power shall control with respect to a Generation Interconnection Customer's consumption of Station Power.

## **8.5 Communications**

### **8.5.1 Interconnection Customer Obligations:**

Interconnection Customer shall install and maintain satisfactory operating communications with Transmission Provider's system dispatcher or its other designated representative and with the Interconnected Transmission Owner. Interconnection Customer shall provide standard voice line, dedicated voice line and facsimile communications at its Customer Facility control room through use of the public telephone system. Interconnection Customer also shall provide and maintain backup communication links with both Transmission Provider and Interconnected Transmission Owner for use during abnormal conditions as specified by Transmission Provider and Interconnected Transmission Owner, respectively. Interconnection Customer further shall provide the dedicated data circuit(s) necessary to provide Interconnection Customer data to the Transmission Provider and Interconnected Transmission Owner as necessary to conform with Applicable Technical Requirements and Standards.

### **8.5.2 Remote Terminal Unit:**

Unless otherwise deemed unnecessary by Transmission Provider and Interconnected Transmission Owner, as indicated in the Interconnection Service Agreement, prior to any operation of the Customer Facility, a remote terminal unit, or equivalent data collection and transfer equipment acceptable to the Interconnection Parties, shall be installed by Interconnection Customer, or by the Interconnected Transmission Owner at Interconnection Customer's expense, to gather accumulated and instantaneous data to be telemetered to the location(s) designated by Transmission Provider and Interconnected Transmission Owner through use of a dedicated point-to-point data circuit(s) as indicated in Section 8.5.1 of this Appendix 2. Instantaneous, bi-directional real power and, with respect to a Generation Interconnection Customer's Customer Facility, reactive power flow information, must be telemetered directly to the location(s) specified by Transmission Provider and the Interconnected Transmission Owner.

### **8.5.3. Phasor Measurement Units (PMUs):**

An Interconnection Customer entering the New Services Queue on or after October 1, 2012 with a proposed new Customer Facility that has a Maximum Facility Output equal to or greater than 100 MW shall install and maintain, at its expense, phasor measurement units (PMUs). The PMUs must be capable of performing phasor measurements which are synchronized via a high-accuracy satellite clock. As provided for in the PJM Manuals, an Interconnection Customer shall be required to install and maintain, at its expense, PMU equipment which includes the communication circuit capable of carrying the PMU data to a local data concentrator, and then transporting the information continuously to the Transmission Provider; as well as store the PMU data locally. The Transmission Provider will install and provide for the ongoing support and maintenance of the network communications linking the data concentrator to the

Transmission Provider. The requirements and guidelines of PMU data and telecommunication of such data are contained in the PJM Manuals.

## **9 Force Majeure**

### **9.1 Notice:**

An Interconnection Party that is unable to carry out an obligation imposed on it by this Appendix 2 due to Force Majeure shall notify the other parties in writing or by telephone within a reasonable time after the occurrence of the cause relied on.

### **9.2 Duration of Force Majeure:**

An Interconnection Party shall not be responsible, or considered to be in Breach or Default under this Interconnection Service Agreement, for any non-performance, any interruption or failure of service, deficiency in the quality or quantity of service, or any other failure to perform any obligation hereunder to the extent that such failure or deficiency is due to Force Majeure. An Interconnection Party shall be excused from whatever performance is affected only for the duration of the Force Majeure and while the Interconnection Party exercises Reasonable Efforts to alleviate such situation. As soon as the non-performing Interconnection Party is able to resume performance of its obligations excused because of the occurrence of Force Majeure, such Interconnection Party shall resume performance and give prompt notice thereof to the other parties.

### **9.3 Obligation to Make Payments:**

Any Interconnection Party's obligation to make payments for services shall not be suspended by Force Majeure.

## **10 Charges**

### **10.1 Specified Charges:**

If and to the extent required by the Interconnected Transmission Owner, after the Initial Operation of the Customer Facility, Interconnection Customer shall pay one or more of the types of recurring charges described in this section to compensate the Interconnected Transmission Owner for costs incurred in performing certain of its obligations under this Appendix 2. All such charges shall be stated in Schedule E of the Interconnection Service Agreement. Interconnected Transmission Owner shall provide Transmission Provider and Interconnection Customer with appropriate cost data, schedules and/or written testimony in support of any charges under this section in such manner and at such time as to allow Transmission Provider to include such materials in its filing of the Interconnection Service Agreement with the FERC. Transmission Provider will deliver a copy of such filing to Interconnection Customer. Permissible charges under this section may include:

(a) Administration Charge — Any such charge may recover only the costs and expenses incurred by the Interconnected Transmission Owner in connection with administrative obligations such as the preparation of bills, the processing of Customer Facility-specific data on energy delivered at the Point of Interconnection and costs incurred in similar types of administrative processes related to Interconnection Customer's Interconnection Service. An Administration Charge shall not be permitted to the extent that the Interconnected Transmission Owner's other charges to the Interconnection Customer under the same Interconnection Service Agreement include an allocation of Interconnected Transmission Owner's administrative and general expenses and/or other corporate overhead costs.

(b) Metering Charge — Any such charge may recover only the Interconnected Transmission Owner's costs and expenses associated with operation, maintenance, inspection, testing, and carrying or capital replacement charges for any Metering Equipment that is owned by the Interconnected Transmission Owner.

(c) Telemetry Charge — Any such charge may recover only the Interconnected Transmission Owner's costs and expenses associated with operation, maintenance, inspection, testing, and carrying or capital replacement charges for any telemetry equipment that is owned by the Interconnected Transmission Owner and that is used exclusively in conjunction with Interconnection Service for the Interconnection Customer.

(d) Customer Facility Operations and Maintenance Charge — Any such charge may recover only the Interconnected Transmission Owner's costs and expenses associated with operation, maintenance, inspection, testing, modifications, taxes and carrying or capital replacement charges for Attachment Facilities related to the Interconnection Customer's Interconnection Service and that are owned by the Interconnected Transmission Owner, provided that

(i) any such charge shall exclude costs and expenses associated with Transmission Owner Interconnection Facilities owned by the Interconnected Transmission Owner that are radial line facilities that serve load in addition to an Interconnection Customer; and

(ii) except as otherwise provided by Applicable Laws and Regulations, any such charge may include only an allocated share, derived in accordance with the allocations contained in the Facilities Study, of costs and expenses associated with Transmission Owner Interconnection Facilities owned by the Interconnected Transmission Owner that are radial line facilities that serve more than one Interconnection Customer. At the discretion of the affected Interconnected Entities, a Customer Facility Operations and Maintenance Charge authorized under this section may apply on a per-incident basis or on a monthly or other periodic basis.

(e) Other Charges — Any other charges applicable to the Interconnection Customer, as mutually agreed upon by the Interconnection Customer and the Interconnected Transmission Owner and as accepted by the FERC as part of an Interconnection Service Agreement.

## 10.2 FERC Filings:

To the extent required by law or regulation, each Interconnection Party shall seek FERC acceptance or approval of its respective charges or the methodology for the calculation of such charges.

## **11 Security, Billing And Payments**

### **11.1 Recurring Charges Pursuant to Section 10:**

The following provisions shall apply with respect to recurring charges applicable to Interconnection Service after Initial Operation of the Customer Facility pursuant to Section 10 of this Appendix 2.

#### **11.1.1 General:**

Except as, and to the extent, otherwise provided in the Interconnection Service Agreement, billing and payment of any recurring charges applicable to Interconnection Service after Initial Operation of the Customer Facility pursuant to Section 10 of this Appendix 2 shall be in accordance with Section 7 of the Tariff. The Interconnected Transmission Owner shall provide Transmission Provider with all necessary information and supporting data that Transmission Provider may reasonably require to administer billing for and payment of applicable charges under this Appendix 2. Transmission Provider shall remit to the Interconnected Transmission Owner revenues received in payment of Interconnected Transmission Owner's charges to Interconnection Customer under this Appendix 2 upon Transmission Provider's receipt of such revenues. At Transmission Provider's reasonable discretion, charges to Interconnection Customer and remittances to Interconnected Transmission Owner under this Appendix 2 may be netted against other amounts owed by or to such parties under the Tariff.

#### **11.1.2 Billing Disputes:**

In the event of a billing dispute between Transmission Provider and Interconnection Customer, Transmission Provider shall continue to provide interconnection service under this Appendix 2 as long as Interconnection Customer (i) continues to make all payments not in dispute, and (ii) pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet these two requirements for continuation of service, then Transmission Provider shall so inform the Interconnection Parties and may provide notice to Interconnection Customer of a Breach pursuant to Section 15 of this Appendix 2. Within thirty days after the resolution of the dispute, the Interconnection Party that owes money to the other Interconnection Party shall pay the amount due with interest calculated in accord with Section 11.4.

### **11.2 Costs for Transmission Owner Interconnection Facilities and/or Merchant Network Upgrades:**

The following provisions shall apply with respect to charges for the Costs of the Interconnected Transmission Owner for which the Interconnection Customer is responsible.

#### **11.2.1 Adjustments to Security:**

The Security provided by Interconnection Customer at or before execution of the Interconnection Service Agreement (a) shall be reduced as portions of the work on required Local Upgrades and/or Network Upgrades is completed, and/or (b) shall be increased or decreased as required to reflect adjustments to Interconnection Customer's cost responsibility, as determined in accordance with Section 217, to correspond with changes in the Scope of Work developed in accordance with Transmission Provider's scope change process for interconnection projects set forth in the PJM Manuals.

#### **11.2.2 Invoice:**

The Interconnected Transmission Owner shall provide Transmission Provider a quarterly statement of the Interconnected Transmission Owner's scheduled expenditures during the next three months for, as applicable (a) the design, engineering and construction of, and/or for other charges related to, construction of the Interconnection Facilities and/or Merchant Network Upgrades for which the Interconnected Transmission Owner is responsible under the Interconnection Service Agreement and the Interconnection Construction Service Agreement, or (b) in the event that the Interconnection Customer exercises the Option to Build pursuant to Section 3.2.3.1 of Appendix 2 of the form of Interconnection Construction Service Agreement (set forth in Attachment P to the Tariff), for the Transmission Owner's Costs associated with the Interconnection Customer's building Attachment Facilities, Local Upgrades, and Network Upgrades (including both Direct Connection Network Upgrades, Direct Connection Local Upgrades, Non-Direct Connection Network Upgrades and Non-Direct Connection Local Upgrades), including but not limited to Costs for tie-in work and Cancellation Costs. Provided, however, such Transmission Owner Costs may include oversight costs (i.e. costs incurred by the Transmission Owner when engaging in oversight activities to satisfy itself that the Interconnection Customer is complying with the Transmission Owner's standards and specifications for the construction of facilities) only if the Transmission Owner and the Interconnection Customer mutually agree to the inclusion of such costs under the Option to Build pursuant to the provisions of Section 3.3.3.1 of Appendix 2 of the form of Interconnection Construction Service Agreement (set forth in Attachment P to the Tariff). Transmission Provider shall bill Interconnection Customer on behalf of the Interconnected Transmission Owner, for the Interconnected Transmission Owner's expected Costs during the subsequent three months. Interconnection Customer shall pay each bill within twenty (20) days after receipt thereof. Upon receipt of each of Interconnection Customer's payments of such bills, Transmission Provider shall reimburse the Interconnected Transmission Owner. Interconnection Customer may request that the Transmission Provider provide a quarterly cost reconciliation. Such a quarterly cost reconciliation will have a one-quarter lag, e.g., reconciliation of costs for the first calendar quarter of work will be provided at the start of the third calendar quarter of work, provided, however, that Section 11.2.3 of this Appendix 2 shall govern the timing of the final cost reconciliation upon completion of the work.

### **11.2.3 Final Invoice:**

Within 120 days after the Interconnected Transmission Owner completes construction and installation of the Interconnection Facilities and/or Merchant Network Upgrades for which the Interconnected Transmission Owner is responsible under the Interconnection Service Agreement and the Interconnection Construction Service Agreement, Transmission Provider shall provide Interconnection Customer with an accounting of, and the appropriate Construction Party shall make any payment to the other that is necessary to resolve, any difference between (a) Interconnection Customer's responsibility under the Tariff for the actual Cost of such facilities, and (b) Interconnection Customer's previous aggregate payments to Transmission Provider for the Costs of such facilities. Notwithstanding the foregoing, however, Transmission Provider shall not be obligated to make any payment to either the Interconnection Customer or the Interconnected Transmission Owner that the preceding sentence requires it to make unless and until the Transmission Provider has received the payment that it is required to refund from the Construction Party owing the payment.

### **11.2.4 Disputes:**

In the event of a billing dispute between any of the Construction Parties, Transmission Provider and the Interconnected Transmission Owner shall continue to perform their respective obligations pursuant to this Interconnection Service Agreement and any related Interconnection Construction Service Agreements so long as (a) Interconnection Customer continues to make all payments not in dispute, and (b) the Security held by the Transmission Provider while the dispute is pending exceeds the amount in dispute, or (c) Interconnection Customer pays to Transmission Provider or into an independent escrow account the portion of the invoice in dispute, pending resolution of such dispute. If Interconnection Customer fails to meet any of these requirements, then Transmission Provider shall so inform the other Construction Parties and Transmission Provider or the Interconnected Transmission Owner may provide notice to Interconnection Customer of a Breach pursuant to Section 15 of this Appendix 2.

### **11.3 No Waiver:**

Payment of an invoice shall not relieve Interconnection Customer from any other responsibilities or obligations it has under this Appendix 2, nor shall such payment constitute a waiver of any claims arising hereunder.

### **11.4 Interest:**

Interest on any unpaid amounts shall be calculated in accordance with the methodology specified for interest on refunds in the FERC's regulations at 18 C.F.R. § 35.19a(a)(2)(iii). Interest on delinquent amounts shall be calculated from the due date of the bill to the date of payment.

### **12.0 Assignment**

#### **12.1 Assignment with Prior Consent:**

Except as provided in Section 12.2 to this Appendix 2, no Interconnection Party shall assign its rights or delegate its duties, or any part of such rights or duties, under the Interconnection Service Agreement without the written consent of the other Interconnection Parties, which consent shall not be unreasonably withheld, conditioned, or delayed. Any such assignment or delegation made without such written consent shall be null and void. An Interconnection Party may make an assignment in connection with the sale, merger, or transfer of a substantial portion or all of its properties including the Interconnection Facilities which it owns, so long as the assignee in such a sale, merger, or transfer assumes in writing all rights, duties and obligations arising under this Interconnection Service Agreement. In addition, the Interconnected Transmission Owner shall be entitled, subject to Applicable Laws and Regulations, to assign the Interconnection Service Agreement to any Affiliate or successor that owns and operates all or a substantial portion of the Interconnected Transmission Owner's transmission facilities.

## **12.2 Assignment Without Prior Consent**

### **12.2.1 Assignment to Owners:**

Interconnection Customer may assign the Interconnection Service Agreement without the Interconnected Transmission Owner's or Transmission Provider's prior consent to any Affiliate or person that purchases or otherwise acquires, directly or indirectly, all or substantially all of the Customer Facility and the Customer Interconnection Facilities, provided that prior to the effective date of any such assignment, the assignee shall demonstrate that, as of the effective date of the assignment, the assignee has the technical and operational competence to comply with the requirements of this Interconnection Service Agreement and assumes in a writing provided to the Interconnected Transmission Owner and Transmission Provider all rights, duties, and obligations of Interconnection Customer arising under this Interconnection Service Agreement. However, any assignment described herein shall not relieve or discharge the Interconnection Customer from any of its obligations hereunder absent the written consent of the Transmission Provider, such consent not to be unreasonably withheld, conditioned or delayed.

### **12.2.2 Assignment to Lenders:**

Interconnection Customer may, without the consent of the Transmission Provider or the Interconnected Transmission Owner, assign the Interconnection Service Agreement to any Project Finance Entity(ies), provided that such assignment does not alter or diminish Interconnection Customer's duties and obligations under this Interconnection Service Agreement. If Interconnection Customer provides the Interconnected Transmission Owner with notice of an assignment to any Project Finance Entity(ies) and identifies such Project Finance Entities as contacts for notice purposes pursuant to Section 21 of this Appendix 2, the Transmission Provider or Interconnected Transmission Owner shall provide notice and reasonable opportunity for such entity(ies) to cure any Breach under this Interconnection Service Agreement in accordance with this Interconnection Service Agreement. Transmission Provider or Interconnected Transmission Owner shall, if requested by such lenders, provide such customary and reasonable documents, including consents to assignment, as may be reasonably requested with respect to the assignment and status of the Interconnection Service Agreement, provided that such documents do not alter or diminish the rights of the Transmission Provider or

Interconnected Transmission Owner under this Interconnection Service Agreement, except with respect to providing notice of Breach to a Project Finance Entity. Upon presentation of the Transmission Provider and/or the Interconnected Transmission Owner's invoice therefor, Interconnection Customer shall pay the Transmission Provider and/or the Interconnected Transmission Owner's reasonable documented cost of providing such documents and certificates. Any assignment described herein shall not relieve or discharge the Interconnection Customer from any of its obligations hereunder absent the written consent of the Interconnected Transmission Owner and Transmission Provider.

### **12.3 Successors and Assigns:**

This Interconnection Service Agreement and all of its provisions are binding upon, and inure to the benefit of, the Interconnection Parties and their respective successors and permitted assigns.

## **13 Insurance**

### **13.1 Required Coverages For Generation Resources Of More Than 20 Megawatts or Merchant Transmission Facilities:**

Each Interconnected Entity 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 authorized to do business in a state or states in which the Interconnection Facilities are located. Failure to maintain required insurance shall be a Breach of the Interconnection Service Agreement.

A. Workers Compensation insurance with statutory limits, as required by the state and/or jurisdiction in which the work 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, coverage for pollution to the extent normally available 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 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. These limits apply 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 five million dollars (\$5,000,000) per occurrence/aggregate. Coverage shall be provided for the Interconnected Entity's duties, responsibilities and performance outlined in this Appendix 2, the Interconnection Service Agreement, and if applicable, the Interconnection Construction Service Agreement.

An Interconnected Entity may meet the Professional Liability Insurance requirements by requiring third-party contractors, designers, or engineers, or other parties that are responsible for design work associated with the transmission facilities or Interconnection Facilities necessary for the interconnection to procure professional liability insurance in the amounts and upon the terms prescribed by this section 13.1(E), and providing evidence of such insurance to the other Interconnected Entity. Such insurance shall be procured from companies rated "A-," VII or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities are located. Nothing in this section relieves the Interconnected Entity from complying with the insurance requirements. In the event that the policies of the designers, engineers, or other parties used to satisfy the Interconnected Entity's insurance obligations under this section become invalid for any reason, including but not limited to, (i) the policy(ies) lapsing or otherwise terminating or expiring; (ii) the coverage limits of such policy(ies) are decreased; or (iii) the policy(ies) do not comply with the terms and conditions of the Tariff; Interconnected Entity shall be required to procure insurance sufficient to meet the requirements of this section, such that there is no lapse in insurance coverage. Notwithstanding the foregoing, in the event an Interconnected Entity will not design or construct or cause to design or construct any new transmission facilities or Interconnection Facilities, Transmission Provider, in its discretion, may waive the requirement that an Interconnected Entity maintain the Professional Liability Insurance pursuant to this section.

### **13.1A. Required Coverages For Generation Resources Of 20 Megawatts Or Less:**

Each Interconnected Entity shall maintain the types of insurance as described in section 13.1 paragraphs A through E in an amount sufficient to insure against all reasonably foreseeable direct liabilities given the size and nature of the generating equipment being interconnected, the interconnection itself, and the characteristics of the system to which the interconnection is made. Additional insurance may be required by the Interconnection Customer, as a function of owning and operating a generating facility. All insurance shall be procured from insurance companies rated "A-," VII or better by AM Best and authorized to do business in a state or states in which the Interconnection Facilities are located. Failure to maintain required insurance shall be a Breach of the Interconnection Service Agreement.

### **13.2 Additional Insureds:**

The Commercial General Liability, Business/Commercial Automobile Liability and Excess and/or Umbrella Liability policies procured by each Interconnected Entity (the "Insuring

Interconnected Entity”) shall include each other Interconnection Party (the “Insured Interconnection Party”), and its respective officers, agents and employees as additional insureds, providing all standard coverages and covering liability of the Insured Interconnection Party arising out of bodily injury and/or property damage (including loss of use) in any way connected with the operations, performance, or lack of performance under this Interconnection Service Agreement.

### **13.3 Other Required Terms:**

The above-mentioned insurance policies (except workers’ compensation) 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 that party’s negligence, and shall apply to such extent without consideration for other policies separately carried 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. Each Insuring Interconnected Entity shall be responsible for its respective deductibles or retentions.

(b) 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 the Interconnection Service Agreement.

(c) Provide for a waiver of all rights of subrogation which the Insuring Interconnected Entity’s insurance carrier might exercise against the Insured Interconnection Party.

### **13.3A No Limitation of Liability:**

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

### **13.4 Self-Insurance:**

Notwithstanding the foregoing, each Interconnected Entity may self-insure to meet the minimum insurance requirements of this Section 13 of this Appendix 2 to the extent it maintains a self-insurance program, provided that such Interconnected Entity’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 13. For any period of time that an Interconnected Entity’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 13. In the event that an Interconnected Entity is permitted to self-insure pursuant to this section, it shall notify the other Interconnection Parties

that it meets the requirements to self-insure and that its self-insurance program meets the minimum insurance requirements in a manner consistent with that specified in Section 13.5 of this Appendix 2.

### **13.5 Notices; Certificates of Insurance:**

All policies of insurance shall provide for thirty days prior written notice of cancellation or material adverse change. If the policies of insurance do not or cannot be endorsed to provide thirty days prior notice of cancellation or material adverse change, each Interconnected Entity shall provide the other Interconnected Entities with thirty days prior written notice of cancellation or material adverse change to any of the insurance required in this agreement. Each Interconnected Entity shall provide the other with certificates of insurance prior to Initial Operation of the Customer Facility and thereafter at such time intervals as they shall mutually agree upon, provided that such interval shall not be less than one year. All 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 coverages, and that this insurance is primary with a waiver of subrogation included in favor of the other Interconnected Entities.

### **13.6 Subcontractor Insurance:**

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

### **13.7 Reporting Incidents**

The Interconnection 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 the Interconnection Service Agreement.

## **14 Indemnity**

### **14.1 Indemnity:**

Each Interconnection Party shall indemnify and hold harmless the other Interconnection Parties, and the other Interconnection Parties' officers, shareholders, stakeholders, members, managers, representatives, directors, agents and employees, and Affiliates, from and against any and all loss, liability, damage, cost or expense to third parties, including damage and liability for bodily injury to or death of persons, or damage to property or persons (including reasonable attorneys' fees and expenses, litigation costs, consultant fees, investigation fees, sums paid in settlements of claims, penalties or fines imposed under Applicable Laws and Regulations, and any such fees and expenses incurred in enforcing this indemnity or collecting any sums due hereunder)

(collectively, “Loss”) to the extent arising out of, in connection with, or resulting from (i) the indemnifying Interconnection Party’s breach of any of the representations or warranties made in, or failure of the indemnifying Interconnection Party or any of its subcontractors to perform any of its obligations under, this Interconnection Service Agreement (including Appendix 2), or (ii) the negligence or willful misconduct of the indemnifying Interconnection Party or its contractors; provided, however, that no Interconnection Party shall have any indemnification obligations under this Section 14.1 in respect of any Loss to the extent the Loss results from the negligence or willful misconduct of the Interconnection Party seeking indemnity.

#### **14.2 Indemnity Procedures:**

Promptly after receipt by a Person entitled to indemnity (“Indemnified Person”) 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 Section 14.1 may apply, the Indemnified Person shall notify the indemnifying Interconnection Party of such fact. Any failure of or delay in such notification shall not affect an Interconnection Party’s indemnification obligation unless such failure or delay is materially prejudicial to the indemnifying Interconnection Party. The Indemnified Person shall cooperate with the indemnifying Interconnection Party with respect to the matter for which indemnification is claimed. The indemnifying Interconnection Party shall have the right to assume the defense thereof with counsel designated by such indemnifying Interconnection Party and reasonably satisfactory to the Indemnified Person. If the defendants in any such action include one or more Indemnified Persons and the indemnifying Interconnection Party and if the Indemnified Person reasonably concludes that there may be legal defenses available to it and/or other Indemnified Persons which are different from or additional to those available to the indemnifying Interconnection Party, the Indemnified Person shall have the right to select separate counsel to assert such legal defenses and to otherwise participate in the defense of such action on its own behalf. In such instances, the indemnifying Interconnection Party shall only be required to pay the fees and expenses of one additional attorney to represent an Indemnified Person or Indemnified Persons having such differing or additional legal defenses. The Indemnified Person shall be entitled, at its expense, to participate in any action, suit or proceeding, the defense of which has been assumed by the indemnifying Interconnection Party. Notwithstanding the foregoing, the indemnifying Interconnection Party (i) shall not be entitled to assume and control the defense of any such action, suit or proceedings if and to the extent that, in the opinion of the Indemnified Person and its counsel, such action, suit or proceeding involves the potential imposition of criminal liability on the Indemnified Person, or there exists a conflict or adversity of interest between the Indemnified Person and the indemnifying Interconnection Party, in such event the indemnifying Interconnection Party shall pay the reasonable expenses of the Indemnified Person, and (ii) shall not settle or consent to the entry of any judgment in any action, suit or proceeding without the consent of the Indemnified Person, which shall not be unreasonably withheld, conditioned or delayed.

#### **14.3 Indemnified Person:**

If an Indemnified Person is entitled to indemnification under this Section 14 as a result of a claim by a third party, and the indemnifying Interconnection Party fails, after notice and reasonable opportunity to proceed under Section 14.2 of this Appendix 2, to assume the defense of such

claim, such Indemnified Person may at the expense of the indemnifying Interconnection Party contest, settle or consent to the entry of any judgment with respect to, or pay in full, such claim.

#### **14.4 Amount Owing:**

If an indemnifying Interconnection Party is obligated to indemnify and hold any Indemnified Person harmless under this Section 14, the amount owing to the Indemnified Person shall be the amount of such Indemnified Person's actual Loss, net of any insurance or other recovery.

#### **14.5 Limitation on Damages:**

Except as otherwise provided in this Section 14, the liability of an Interconnection Party under this Appendix 2 shall be limited to direct actual damages, and all other damages at law are waived. Under no circumstances shall any Interconnection Party or its Affiliates, directors, officers, employees and agents, or any of them, be liable to another Interconnection Party, whether in tort, contract or other basis in law or equity for any special, indirect punitive, exemplary or consequential damages, including lost profits. The limitations on damages specified in this Section 14.5 are without regard to the cause or causes related thereto, including the negligence of any Interconnection Party, whether such negligence be sole, joint or concurrent, or active or passive. This limitation on damages shall not affect any Interconnection Party's rights to obtain equitable relief as otherwise provided in this Appendix 2. The provisions of this Section 14.5 shall survive the termination or expiration of the Interconnection Service Agreement.

#### **14.6 Limitation of Liability in Event of Breach:**

An Interconnection Party ("Breaching Party") shall have no liability hereunder to the other Interconnection Parties, and the other Interconnection Parties hereby release the Breaching Party, for all claims or damages that either of them incurs that are associated with any interruption in the availability of the Customer Facility, Interconnection Facilities, Transmission System or Interconnection Service or damages to an Interconnection Party's facilities, except to the extent such interruption or damage is caused by the Breaching Party's gross negligence or willful misconduct in the performance of its obligations under this Interconnection Service Agreement (including Appendix 2).

#### **14.7 Limited Liability in Emergency Conditions:**

Except as otherwise provided in the Tariff or the Operating Agreement, no Interconnection Party shall be liable to any other Interconnection Party for any action that it takes in responding to an Emergency Condition, so long as such action is made in good faith, is consistent with Good Utility Practice and is not contrary to the directives of the Transmission Provider or of the Interconnected Transmission Owner with respect to such Emergency Condition. Notwithstanding the above, Interconnection Customer shall be liable in the event that it fails to comply with any instructions of Transmission Provider or the Interconnected Transmission Owner related to an Emergency Condition.

## **15 Breach, Cure And Default**

### **15.1 Breach:**

A Breach of this Interconnection Service Agreement shall include:

- (a) The failure to pay any amount when due;
- (b) The failure to comply with any material term or condition of this Appendix 2 or of the other portions of the Interconnection Service Agreement, including but not limited to any material breach of a representation, warranty or covenant (other than in subsections (a) and (c)-(e) of this Section) made in this Appendix 2;
- (c) Assignment of the Interconnection Service Agreement in a manner inconsistent with its terms;
- (d) Failure of an Interconnection Party to provide access rights, or an Interconnection Party's attempt to revoke or terminate access rights, that are provided under this Appendix 2; or
- (e) Failure of an Interconnection Party to provide information or data required to be provided under this Appendix 2 to another Interconnection Party for such other Interconnection Party to satisfy its obligations under this Appendix 2.

### **15.2 Continued Operation:**

In the event of a Breach or Default by either Interconnected Entity, and subject to termination of the Interconnection Service Agreement under Section 16 of this Appendix 2, the Interconnected Entities shall continue to operate and maintain, as applicable, such DC power systems, protection and Metering Equipment, telemetering equipment, SCADA equipment, transformers, Secondary Systems, communications equipment, building facilities, software, documentation, structural components, and other facilities and appurtenances that are reasonably necessary for Transmission Provider and the Interconnected Transmission Owner to operate and maintain the Transmission System and the Transmission Owner Interconnection Facilities and for Interconnection Customer to operate and maintain the Customer Facility and the Customer Interconnection Facilities, in a safe and reliable manner.

### **15.3 Notice of Breach:**

An Interconnection Party not in Breach shall give written notice of an event of Breach to the Breaching Party, to Transmission Provider and to other persons that the Breaching Party identifies in writing to the other Interconnection Party in advance. Such notice shall set forth, in reasonable detail, the nature of the Breach, and where known and applicable, the steps necessary to cure such Breach. In the event of a Breach by Interconnection Customer, Transmission Provider and the Interconnected Transmission Owner agree to provide notice of such Breach, at the same time and in the same manner as its notice to Interconnection Customer, to any Project Finance Entity provided that the Interconnection Customer has provided the notifying

Interconnection Party with notice of an assignment to such Project Finance Entity(ies) and identifies such Project Finance Entity(ies) as contacts for notice purposes pursuant to Section 21 of this Appendix 2.

#### **15.4 Cure and Default:**

An Interconnection Party that commits a Breach and does not take steps to cure the Breach pursuant to this Section 15.4 is in Default of this Appendix 2 and of the Interconnection Service Agreement.

##### **15.4.1 Cure of Breach:**

Except for the event of Breach set forth in Section 15.1(a) above, the Breaching Interconnection Party (a) may cure the Breach within thirty days from the receipt of such notice; or (b) if the Breach cannot be cured within thirty (30) days, may commence in good faith all steps that are reasonable and appropriate to cure the Breach within such thirty day time period and thereafter diligently pursue such action to completion. In an event of Breach set forth in Section 15.1(a), the Breaching Interconnection Party may cure the Breach within five (5) days from the receipt of notice of the Breach.

#### **15.5 Right to Compel Performance:**

Notwithstanding the foregoing, upon the occurrence of an event of Default, a non-Defaulting Interconnection Party shall be entitled to (a) commence an action to require the Defaulting Interconnection Party to remedy such Default and specifically perform its duties and obligations hereunder in accordance with the terms and conditions hereof, (b) withhold payments, (c) suspend performance hereunder, and (d) exercise such other rights and remedies as it may have in equity or at law; provided, however, that the Transmission Provider shall not terminate the Interconnection Service Agreement due to the failure of Interconnection Customer to make a payment hereunder unless such failure could reasonably be expected to have a material adverse effect on the Interconnected Transmission Owner.

#### **15.6 Remedies Cumulative:**

Subject to Section 20.1, no remedy conferred by any provision of this Appendix 2 is intended to be exclusive of any other remedy and each and every remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute or otherwise. The election of any one or more remedies shall not constitute a waiver of the right to pursue other available remedies.

## **16 Termination**

### **16.1 Termination:**

This Interconnection Service Agreement and Interconnection Service under this Interconnection Service Agreement may be terminated by the following means:

### **16.1.1 By Mutual Consent:**

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

### **16.1.2 By Interconnection Customer:**

Interconnection Customer may unilaterally terminate the Interconnection Service Agreement pursuant to Applicable Laws and Regulations upon providing Transmission Provider and the Interconnected Transmission Owner sixty (60) days prior written notice thereof, provided that Interconnection Customer is not then in Default under the Interconnection Service Agreement.

### **16.1.3 Upon Default of Interconnection Customer:**

Transmission Provider may terminate the Interconnection Service Agreement upon the Default of Interconnection Customer of its obligations under the Interconnection Service Agreement by providing Interconnection Customer and the Interconnected Transmission Owner prior written notice of termination; provided, however, that Transmission Provider shall not terminate the Interconnection Service Agreement due to the failure of Interconnection Customer to make a payment hereunder unless such failure could reasonably be expected to have a material adverse effect on the Interconnected Transmission Owner.

## **16.2 Disposition of Facilities Upon Termination**

### **16.2.1 Disconnection:**

Upon termination of the Interconnection Service Agreement in accordance with this Section 16, Transmission Provider and/or the Interconnected Transmission Owner shall, in coordination with Interconnection Customer, physically disconnect the Customer Facility from the Transmission System, except to the extent otherwise allowed by this Appendix 2.

### **16.2.2 Network Facilities:**

At the time of termination, the Transmission Provider and the Interconnected Entities shall keep in place any portion of the Interconnection Facilities and/or of any Merchant Network Upgrades that the Transmission Provider deems necessary for the safety, integrity and/or reliability of the Transmission System. Otherwise, Transmission Provider may, in its discretion, within 30 days following termination of Interconnection Service, require the removal of all or any part of the Interconnection Facilities or of any Merchant Network Upgrades.

**16.2.2.1** In the event that (i) the Interconnection Service Agreement and Interconnection Service under this Appendix 2 are terminated and (ii) Transmission Provider determines that some or all of the Interconnection Facilities or of any Merchant Network Upgrades that are owned by the Interconnection Customer are necessary for the safety, integrity and/or reliability of the Transmission System, Interconnection Customer, subject to Applicable



Laws and Regulations, shall transfer to the Interconnected Transmission Owner title to the Interconnection Facilities or Merchant Network Upgrades that Transmission Provider has determined to be necessary for the safety, integrity and/or reliability of the Transmission System.

**16.2.2.2** In the event that removal of some or all of the Interconnection Facilities or any Merchant Network Upgrades is necessary to maintain compliance with Applicable Standards, Interconnection Customer shall be responsible for the costs of any such removal. Interconnection Customer shall have the right to take or retain title to equipment and/or facilities that are removed pursuant to this section; alternatively, in the event that the Interconnection Customer does not wish to retain title to removed equipment and/or facilities that it owns, the Interconnected Transmission Owner may elect to pay the Interconnection Customer a mutually agreed amount to acquire and own such equipment and/or facilities.

**16.2.3 Request for Disposition Determination:**

Interconnection Customer may request a determination from the Transmission Provider whether any Interconnection Facilities or any Merchant Network Upgrades will be removed in the event of any termination of Interconnection Service to the Customer Facility within the following year. Transmission Provider shall respond to that request no later than sixty (60) days after receipt.

**16.3 FERC Approval:**

Notwithstanding any other provision of this Appendix 2, no termination hereunder shall become effective until the Interconnected Entities and/or Transmission Provider have complied with all Applicable Laws and Regulations applicable to such termination, including the filing with the FERC of a notice of termination of the Interconnection Service Agreement, and acceptance of such notice for filing by the FERC.

**16.4 Survival of Rights:**

Termination of this Interconnection Service Agreement shall not relieve any Interconnection Party of any of its liabilities and obligations arising under this Interconnection Service Agreement (including Appendix 2) prior to the date on which termination becomes effective, and each Interconnection Party may take whatever judicial or administrative actions it deems desirable or necessary to enforce its rights hereunder. Applicable provisions of this Appendix 2 will continue in effect after termination to the extent necessary to provide for final billings, billing adjustments, and the determination and enforcement of liability and indemnification obligations arising from events or acts that occurred while the Interconnection Service Agreement was in effect.

**17 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 Interconnection Party providing the information orally informs the Interconnection Party receiving the information that the information is confidential. If requested

by any Interconnection Party, the disclosing Interconnection Party shall provide in writing the basis for asserting that the information referred to in this section warrants confidential treatment, and the requesting Interconnection Party may disclose such writing to an appropriate Governmental Authority. Any Interconnection Party shall be responsible for the costs associated with affording confidential treatment to its information.

#### **17.1 Term:**

During the term of the Interconnection Service Agreement, and for a period of three (3) years after the expiration or termination of the Interconnection Service Agreement, except as otherwise provided in this Section 17, each Interconnection Party shall hold in confidence, and shall not disclose to any person, Confidential Information provided to it by any other Interconnection Party.

#### **17.2 Scope:**

Confidential Information shall not include information that the receiving Interconnection Party can demonstrate: (i) is generally available to the public other than as a result of a disclosure by the receiving Interconnection Party; (ii) was in the lawful possession of the receiving Interconnection Party on a non-confidential basis before receiving it from the disclosing Interconnection Party; (iii) was supplied to the receiving Interconnection Party without restriction by a third party, who, to the knowledge of the receiving Interconnection Party, after due inquiry, was under no obligation to the disclosing Interconnection Party to keep such information confidential; (iv) was independently developed by the receiving Interconnection Party without reference to Confidential Information of the disclosing Interconnection Party; (v) is, or becomes, publicly known, through no wrongful act or omission of the receiving Interconnection Party or breach of this Appendix 2; or (vi) is required, in accordance with Section 17.7 of this Appendix 2, 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 the Interconnection Service Agreement. Information designated as Confidential Information shall no longer be deemed confidential if the Interconnection Party that designated the information as confidential notifies the other Interconnection Parties that it no longer is confidential.

#### **17.3 Release of Confidential Information:**

No Interconnection Party shall disclose Confidential Information to any other person, except to its Affiliates (limited by the Commission's Standards of Conduct requirements), subcontractors, employees, consultants or to parties who may be or considering providing financing to or equity participation in Interconnection Customer or to potential purchasers or assignees of Interconnection Customer, on a need-to-know basis in connection with the Interconnection Service Agreement, unless such person has first been advised of the confidentiality provisions of this Section 17 and has agreed to comply with such provisions. Notwithstanding the foregoing, an Interconnection Party providing Confidential Information to any person shall remain primarily responsible for any release of Confidential Information in contravention of this Section 17.

#### **17.4 Rights:**

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

#### **17.5 No Warranties:**

By providing Confidential Information, no Interconnection Party makes any warranties or representations as to its accuracy or completeness. In addition, by supplying Confidential Information, no Interconnection Party obligates itself to provide any particular information or Confidential Information to any other Interconnection Party nor to enter into any further agreements or proceed with any other relationship or joint venture.

#### **17.6 Standard of Care:**

Each Interconnection Party shall use at least the same standard of care to protect Confidential Information it receives as the Interconnection Party uses to protect its own Confidential Information from unauthorized disclosure, publication or dissemination. Each Interconnection Party may use Confidential Information solely to fulfill its obligations to the other Interconnection Parties under the Interconnection Service Agreement or to comply with Applicable Laws and Regulations.

#### **17.7 Order of Disclosure:**

If a Governmental Authority with the right, power, and apparent authority to do so requests or requires an Interconnection Party, by subpoena, oral deposition, interrogatories, requests for production of documents, administrative order, or otherwise, to disclose Confidential Information, that Interconnection Party shall provide the Interconnection Party that provided the information with prompt prior notice of such request(s) or requirement(s) so that the providing Interconnection Party may seek an appropriate protective order or waive compliance with the terms of this Appendix 2 or the Interconnection Service Agreement. Notwithstanding the absence of a protective order or agreement, or waiver, the Interconnection Party that is subjected to the request or order may disclose such Confidential Information which, in the opinion of its counsel, the Interconnection Party is legally compelled to disclose. Each Interconnection Party shall use Reasonable Efforts to obtain reliable assurance that confidential treatment will be accorded any Confidential Information so furnished.

#### **17.8 Termination of Interconnection Service Agreement:**

Upon termination of the Interconnection Service Agreement for any reason, each Interconnection Party shall, within ten (10) calendar days of receipt of a written request from another 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.

### **17.9 Remedies:**

The Interconnection Parties agree that monetary damages would be inadequate to compensate an Interconnection Party for another Interconnection Party's Breach of its obligations under this Section 17. Each Interconnection Party accordingly agrees that the other Interconnection Parties shall be entitled to equitable relief, by way of injunction or otherwise, if the first Interconnection Party breaches or threatens to breach its obligations under this Section 17, which equitable relief shall be granted without bond or proof of damages, and the receiving Interconnection 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 Section 17, but shall be in addition to all other remedies available at law or in equity. The Interconnection Parties further acknowledge and agree that the covenants contained herein are necessary for the protection of legitimate business interests and are reasonable in scope. No Interconnection Party, however, shall be liable for indirect, incidental or consequential or punitive damages of any nature or kind resulting from or arising in connection with this Section 17.

### **17.10 Disclosure to FERC or its Staff:**

Notwithstanding anything in this Section 17 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 one of the Interconnection Parties that is otherwise required to be maintained in confidence pursuant to this Interconnection Service Agreement, the Interconnection 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 Interconnection 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. Interconnection Parties are prohibited from notifying the other Interconnection Parties prior to the release of the Confidential Information to the Commission or its staff. An Interconnection Party shall notify the other Interconnection Parties to the Interconnection Service Agreement when it is notified by FERC or its staff that a request to release Confidential Information has been received by FERC, at which time any of the Interconnection Parties may respond before such information would be made public, pursuant to 18 C.F.R. § 388.112.

### **17.11**

Subject to the exception in Section 17.10 of this Appendix 2, no Interconnection Party shall disclose Confidential Information of another Interconnection Party to any person not employed or retained by the Interconnection Party, except to the extent disclosure is (i) required by law; (ii) reasonably deemed by the disclosing Interconnection Party to be required in connection with a dispute between or among the Interconnection Parties, or the defense of litigation or dispute; (iii) otherwise permitted by consent of the Interconnection Party that provided such Confidential Information, such consent not to be unreasonably withheld; or (iv) necessary to

fulfill its obligations under this Interconnection Service Agreement or as a transmission service provider or a Control Area operator including disclosing the Confidential Information to an RTO or ISO or to a regional or national reliability organization. Prior to any disclosures of another Interconnection Party's Confidential Information under this subparagraph, the disclosing Interconnection Party shall promptly notify the other Interconnection Parties in writing and shall assert confidentiality and cooperate with the other Interconnection Parties in seeking to protect the Confidential Information from public disclosure by confidentiality agreement, protective order or other reasonable measures.

#### **17.12**

This provision shall not apply to any information that was or is hereafter in the public domain (except as a result of a Breach of this provision).

#### **17.13 Return or Destruction of Confidential Information:**

If an Interconnection Party provides any Confidential Information to another Interconnection Party in the course of an audit or inspection, the providing Interconnection Party may request the other party to return or destroy such Confidential Information after the termination of the audit period and the resolution of all matters relating to that audit. Each Interconnection Party shall make Reasonable Efforts to comply with any such requests for return or destruction within ten days of receiving the request and shall certify in writing to the other Interconnection Party that it has complied with such request.

### **18 Subcontractors**

#### **18.1 Use of Subcontractors:**

Nothing in this Appendix 2 shall prevent the Interconnection Parties from utilizing the services of subcontractors as they deem appropriate to perform their respective obligations hereunder, provided, however, that each Interconnection Party shall require its subcontractors to comply with all applicable terms and conditions of this Appendix 2 in providing such services.

#### **18.2 Responsibility of Principal:**

The creation of any subcontract relationship shall not relieve the hiring Interconnection Party of any of its obligations under this Appendix 2. Each Interconnection Party shall be fully responsible to the other Interconnection Parties for the acts and/or omissions of any subcontractor it hires as if no subcontract had been made.

#### **18.3 Indemnification by Subcontractors:**

To the fullest extent permitted by law, an Interconnection Party that uses a subcontractor to carry out any of the Interconnection Party's obligations under this Appendix 2 shall require each of its subcontractors to indemnify, hold harmless and defend each other Interconnection Party, its representatives and assigns from and against any and all claims and/or liability for damage to

property, injury to or death of any person, including the employees of any Interconnection Party or of any Affiliate of any Interconnection Party, or any other liability incurred by the other Interconnection Party or any of its Affiliates, including all expenses, legal or otherwise, to the extent caused by any act or omission, negligent or otherwise, by such subcontractor and/or its officers, directors, employees, agents and assigns, that arises out of or is connected with the operation of the facilities of either Interconnected Entity described in this Appendix 2; provided, however, that no Interconnection Party or Affiliate thereof shall be entitled to indemnity under this Section 18.3 in respect of any injury, loss, or damage to the extent that such loss, injury, or damage results from the negligence or willful misconduct of the Interconnection Party or Affiliate seeking indemnity.

#### **18.4 Subcontractors Not Beneficiaries:**

No subcontractor is intended to be, or shall be deemed to be, a third-party beneficiary of an Interconnection Service Agreement.

### **19 Information Access And Audit Rights**

#### **19.1 Information Access:**

Consistent with Applicable Laws and Regulations, each Interconnection Party shall make available such information and/or documents reasonably requested by another Interconnection Party that are necessary to (i) verify the costs incurred by the other Interconnection Party for which the requesting Interconnection Party is responsible under this Appendix 2 and (ii) carry out obligations and responsibilities under this Appendix 2, provided that the Interconnection Parties shall not use such information for purposes other than those set forth in this Section 19.1 and to enforce their rights under this Appendix 2.

#### **19.2 Reporting of Non-Force Majeure Events:**

Each Interconnection Party shall notify the other Interconnection Parties when it becomes aware of its inability to comply with the provisions of this Appendix 2 for a reason other than Force Majeure. The parties agree to cooperate with each other and provide necessary information regarding such inability to comply, including, but not limited to, the date, duration, reason for the inability to comply, and corrective actions taken or planned to be taken with respect to such inability to comply. Notwithstanding the foregoing, notification, cooperation or information provided under this Section shall not entitle the receiving Interconnection Party to allege a cause of action for anticipatory breach of the Interconnection Service Agreement.

#### **19.3 Audit Rights:**

Subject to the requirements of confidentiality under Section 17 of this Appendix 2, each Interconnection Party shall have the right, during normal business hours, and upon prior reasonable notice to the pertinent other Interconnection Party, to audit at its own expense the other Interconnection Party's accounts and records pertaining to such Interconnection Party's performance and/or satisfaction of obligations arising under this Appendix 2. Any audit

authorized by this Section shall be performed at the offices where such accounts and records are maintained and shall be limited to those portions of such accounts and records that relate to obligations under this Appendix 2. Any request for audit shall be presented to the Interconnection Party to be audited not later than twenty-four months after the event as to which the audit is sought. Each Interconnection Party shall preserve all records held by it for the duration of the audit period.

## **20 Disputes**

### **20.1 Submission:**

Any claim or dispute that any Interconnection Party may have against another arising out of the Interconnection Service Agreement may be submitted for resolution in accordance with the dispute resolution provisions of the Tariff.

### **20.2 Rights Under The Federal Power Act:**

Nothing in this Section shall restrict the rights of any Interconnection Party to file a complaint with FERC under relevant provisions of the Federal Power Act.

### **20.3 Equitable Remedies:**

Nothing in this Section shall prevent any Interconnection Party from pursuing or seeking any equitable remedy available to it under Applicable Laws and Regulations.

## **21 Notices**

### **21.1 General:**

Any notice, demand or request required or permitted to be given by any Interconnection Party to another and any instrument required or permitted to be tendered or delivered by any Interconnection Party in writing to another may be so given, tendered or delivered, by recognized national courier, or by depositing the same with the United States Postal Service with postage prepaid, for delivery by certified or registered mail, addressed to the Interconnection Party, or personally delivered to the Interconnection Party, at the address specified in the Interconnection Service Agreement. Such notices, if agreed to by the Interconnection Parties, may be made via electronic means, with e-mail confirmation of delivery.

### **21.2 Emergency Notices:**

Moreover, notwithstanding the foregoing, any notice hereunder concerning an Emergency Condition or other occurrence requiring prompt attention, or as necessary during day-to-day operations, may be made by telephone or in person, provided that such notice is confirmed in writing promptly thereafter. Notice in an Emergency Condition, or as necessary during day-to-day operations, shall be provided (i) if by the Interconnected Transmission Owner, to the shift supervisor at, as applicable, a Generation Interconnection Customer's Customer Facility or a

Transmission Interconnection Customer's control center; and (ii) if by the Interconnection Customer, to the shift supervisor at the Interconnected Transmission Owner's transmission control center.

### **21.3 Operational Contacts:**

Each Interconnection Party shall designate, and provide to each other Interconnection Party contact information concerning, a representative to be responsible for addressing and resolving operational issues as they arise during the term of the Interconnection Service Agreement.

## **22 Miscellaneous**

### **22.1 Regulatory Filing:**

In the event that this Interconnection Service Agreement contains any terms that deviate materially from the form included in Attachment O of the Tariff, Transmission Provider shall file the Interconnection Service Agreement on behalf of itself and the Interconnected Transmission Owner with FERC as a service schedule under the Tariff within thirty days after execution. Interconnection Customer may request that any information so provided be subject to the confidentiality provisions of Section 17 of this Appendix 2. An Interconnection Customer shall have the right, with respect to any Interconnection Service Agreement tendered to it, to request (a) dispute resolution under Section 12 of the Tariff or, if concerning the Regional Transmission Expansion Plan, consistent with Schedule 5 of the Operating Agreement, or (b) that Transmission Provider file the agreement unexecuted with the Commission. With the filing of any unexecuted Interconnection Service Agreement, Transmission Provider may, in its discretion, propose to FERC a resolution of any or all of the issues in dispute between or among the Interconnection Parties.

### **22.2 Waiver:**

Any waiver at any time by an Interconnection Party of its rights with respect to a Breach or Default under this Interconnection Service Agreement or with respect to any other matters arising in connection with this Appendix 2, shall not be deemed a waiver or continuing waiver with respect to any subsequent Breach or Default or other matter.

### **22.3 Amendments and Rights Under the Federal Power Act:**

This Interconnection Service Agreement may be amended or supplemented only by a written instrument duly executed by all Interconnection Parties. An amendment to the Interconnection Service Agreement shall become effective and a part of this Interconnection Service Agreement upon satisfaction of all Applicable Laws and Regulations. Notwithstanding the foregoing, nothing contained in this Interconnection Service Agreement shall be construed as affecting in any way any of the rights of any Interconnection Party with respect to changes in applicable rates or charges under Section 205 of the Federal Power Act and/or FERC's rules and regulations thereunder, or any of the rights of any Interconnection Party under Section 206 of the Federal Power Act and/or FERC's rules and regulations thereunder. The terms and conditions of this



Interconnection Service Agreement and every appendix referred to therein shall be amended, as mutually agreed by the Interconnection Parties, to comply with changes or alterations made necessary by a valid applicable order of any Governmental Authority having jurisdiction hereof.

#### **22.4 Binding Effect:**

This Interconnection Service Agreement, including this Appendix 2, and the rights and obligations thereunder shall be binding upon, and shall inure to the benefit of, the successors and assigns of the Interconnection Parties.

#### **22.5 Regulatory Requirements:**

Each Interconnection Party's performance of any obligation under this Interconnection Service Agreement for which such party requires approval or authorization of any Governmental Authority shall be subject to its receipt of such required approval or authorization in the form and substance satisfactory to the receiving Interconnection Party, or the Interconnection Party making any required filings with, or providing notice to, such Governmental Authorities, and the expiration of any time period associated therewith. Each Interconnection Party shall in good faith seek, and shall use Reasonable Efforts to obtain, such required authorizations or approvals as soon as reasonably practicable.

### **23 Representations And Warranties**

#### **23.1 General:**

Each Interconnected Entity hereby represents, warrants and covenants as follows with these representations, warranties, and covenants effective as to the Interconnected Entity during the time the Interconnection Service Agreement is effective:

##### **23.1.1 Good Standing:**

Such Interconnected Entity is duly organized or formed, as applicable, validly existing and in good standing under the laws of its State of organization or formation, and is in good standing under the laws of the respective State(s) in which it is incorporated and operates as stated in the Interconnection Service Agreement.

##### **23.1.2 Authority:**

Such Interconnected Entity has the right, power and authority to enter into the Interconnection Service Agreement, to become a party hereto and to perform its obligations hereunder. The Interconnection Service Agreement is a legal, valid and binding obligation of such Interconnected Entity, enforceable against such Interconnected Entity in accordance with its terms, except as the enforceability thereof may be limited by applicable bankruptcy, insolvency, reorganization or other similar laws affecting creditors' rights generally and by general equitable principles (regardless of whether enforceability is sought in a proceeding in equity or at law).

### **23.1.3 No Conflict:**

The execution, delivery and performance of the Interconnection Service Agreement does not violate or conflict with the organizational or formation documents, or bylaws or operating agreement, of the Interconnected Entity, or with any judgment, license, permit, order, material agreement or instrument applicable to or binding upon the Interconnected Entity or any of its assets.

### **23.1.4 Consent and Approval:**

Such Interconnected Entity has sought or obtained, or, in accordance with the Interconnection Service Agreement will seek or obtain, each consent, approval, authorization, order, or acceptance by any Governmental Authority in connection with the execution, delivery and performance of the Interconnection Service Agreement and it will provide to any Governmental Authority notice of any actions under this Appendix 2 that are required by Applicable Laws and Regulations.

## **24 Tax Liability**

### **24.1 Safe Harbor Provisions:**

This Section 24.1 is applicable only to Generation Interconnection Customers. Provided that Interconnection Customer agrees to conform to all requirements of the Internal Revenue Service ("IRS") (e.g., the "safe harbor" provisions of IRS Notices 2001-82 and 88-129) that would confer nontaxable status on some or all of the transfer of property, including money, by Interconnection Customer to the Interconnected Transmission Owner for payment of the Costs of construction of the Transmission Owner Interconnection Facilities, the Interconnected Transmission Owner, based on such agreement and on current law, shall treat such transfer of property to it as nontaxable income and, except as provided in Section 24.4.2 below, shall not include income taxes in the Costs of Transmission Owner Interconnection Facilities that are payable by Interconnection Customer under the Interconnection Service Agreement or the Interconnection Construction Service Agreement. Interconnection Customer shall document its agreement to conform to IRS requirements for such non-taxable status in the Interconnection Service Agreement, the Interconnection Construction Service Agreement, and/or the Interim Interconnection Service Agreement.

### **24.2 Tax Indemnity:**

Interconnection Customer shall indemnify the Interconnected Transmission Owner for any costs that Interconnected Transmission Owner incurs in the event that the IRS and/or a state department of revenue (State) determines that the property, including money, transferred by Interconnection Customer to the Interconnected Transmission Owner with respect to the construction of the Transmission Owner Interconnection Facilities and/or any Merchant Network Upgrades is taxable income to the Interconnected Transmission Owner. Interconnection Customer shall pay to the Interconnected Transmission Owner, on demand, the amount of any income taxes that the IRS or a State assesses to the Interconnected Transmission Owner in

connection with such transfer of property and/or money, plus any applicable interest and/or penalty charged to the Interconnected Transmission Owner. In the event that the Interconnected Transmission Owner chooses to contest such assessment, either at the request of Interconnection Customer or on its own behalf, and prevails in reducing or eliminating the tax, interest and/or penalty assessed against it, the Interconnected Transmission Owner shall refund to Interconnection Customer the excess of its demand payment made to the Interconnected Transmission Owner over the amount of the tax, interest and penalty for which the Interconnected Transmission Owner is finally determined to be liable. Interconnection Customer's tax indemnification obligation under this section shall survive any termination of the Interconnection Service Agreement or Interconnection Construction Service Agreement.

### **24.3 Taxes Other Than Income Taxes:**

Upon the timely request by Interconnection Customer, and at Interconnection Customer's sole expense, the Interconnected Transmission Owner shall appeal, protest, seek abatement of, or otherwise contest any tax (other than federal or state income tax) asserted or assessed against the Interconnected Transmission Owner for which Interconnection Customer may be required to reimburse Transmission Provider under the terms of this Appendix 2 or Part VI of the Tariff. Interconnection Customer shall pay to the Interconnected Transmission Owner on a periodic basis, as invoiced by the Interconnected Transmission Owner, the Interconnected Transmission Owner's documented reasonable costs of prosecuting such appeal, protest, abatement, or other contest. Interconnection Customer and the Interconnected Transmission Owner shall cooperate in good faith with respect to any 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 Interconnection Customer to the Interconnected Transmission Owner for such contested 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, Interconnection Customer will be responsible for all taxes, interest and penalties, other than penalties attributable to any delay caused by the Interconnected Transmission Owner.

### **24.4 Income Tax Gross-Up**

#### **24.4.1 Additional Security:**

In the event that Interconnection Customer does not provide the safe harbor documentation required under Section 24.1 prior to execution of the Interconnection Service Agreement, within 15 days after such execution, Transmission Provider shall notify Interconnection Customer in writing of the amount of additional Security that Interconnection Customer must provide. The amount of Security that a Transmission Interconnection Customer must provide initially pursuant to this Interconnection Service Agreement shall include any amounts described as additional Security under this Section 24.4 regarding income tax gross-up.

#### **24.4.2 Amount:**

The required additional Security shall be in an amount equal to the amount necessary to gross up fully for currently applicable federal and state income taxes the estimated Costs of Local

Upgrades and Network Upgrades for which Interconnection Customer previously provided Security. Accordingly, the additional Security shall equal the amount necessary to increase the total Security provided to the amount that would be sufficient to permit the Interconnected Transmission Owner to receive and retain, after the payment of all applicable income taxes ("Current Taxes") and taking into account the present value of future tax deductions for depreciation that would be available as a result of the anticipated payments or property transfers (the "Present Value Depreciation Amount"), an amount equal to the estimated Costs of Local Upgrades and Network Upgrades for which Interconnection Customer is responsible under the Interconnection Service Agreement. For this purpose, Current Taxes shall be computed based on the composite federal and state income tax rates applicable to the Interconnected Transmission Owner at the time the additional Security is received, determined using the highest marginal rates in effect at that time (the "Current Tax Rate"), and (ii) the Present Value Depreciation Amount shall be computed by discounting the Interconnected Transmission Owner's anticipated tax depreciation deductions associated with such payments or property transfers by its current weighted average cost of capital.

#### **24.4.3 Time for Payment:**

Interconnection Customer must provide the additional Security, in a form and with terms as required by Sections 212.4 of the Tariff, within 15 days after its receipt of Transmission Provider's notice under this section. The requirement for additional Security under this section shall be treated as a milestone included in the Interconnection Service Agreement pursuant to Section 217.5 of the Tariff.

#### **24.5 Tax Status:**

Each Party shall cooperate with the other to maintain the other Party's tax status. Nothing in this Interconnection Service Agreement or Part VI of the Tariff is intended to adversely affect any Interconnected Transmission Owner's tax exempt status with respect to the issuance of bonds including, but not limited to, local furnishing bonds.

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**SCHEDULE A**

**CUSTOMER FACILITY LOCATION/SITE PLAN**

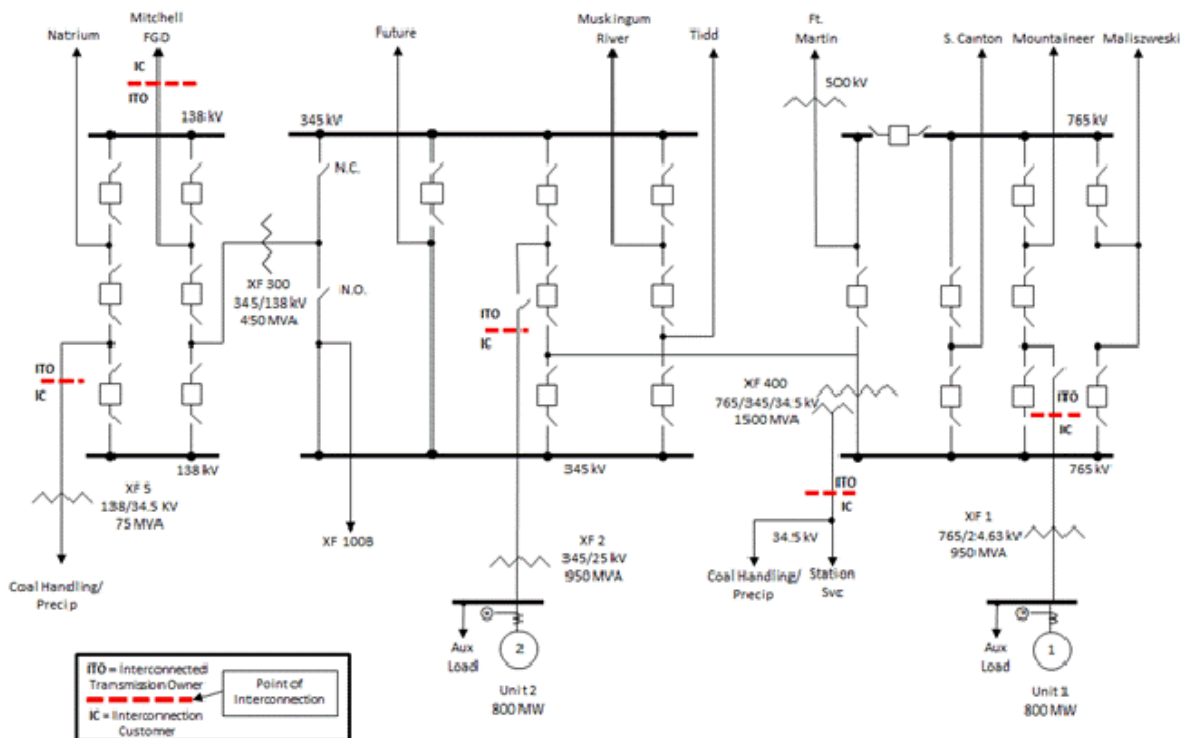
Not required for an existing facility.

## SCHEDULE B

### SINGLE-LINE DIAGRAM

#### Mitchell Units 1 & 2

(Partial Kammer 765, 345 and 138 Station - simplified one-line diagram)



**Mitchell Unit No. 1:** Interconnection Customer will own the high voltage lead line connecting Unit No. 1 to the Interconnected Transmission Owner 765 kV switchyard with the Interconnection Customer owning the conductor up to the switch structure located in the Interconnected Transmission Owner 765 kV switchyard.

**Mitchell Unit No. 2:** Interconnection Customer will own the high voltage lead line connecting Unit No. 2 to the Interconnected Transmission Owner 345 kV switchyard with the Interconnection Customer owning the conductor up to the dead end structure located in the Interconnected Transmission Owner 345 kV switchyard.

**Multi Unit Auxiliary Load:** Interconnection Customer will own the 34.5 kV bus and other facilities up to and including the 34.5 kV switch and other 34.5 kV facilities connecting its coal handling and precip facilities to the tertiary of the Interconnected Transmission Owner's 765-345 kV transformer #400 with Interconnected Transmission Owner owning transformer #400 and the other high voltage facilities.

**Multi Unit Auxiliary Load:** Interconnection Customer will own the 34.5 kV bus and other facilities up to and including its 138-34.5 kV transformer #5 connecting its plant precip and aux

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power facilities to Interconnected Transmission Owner's 138 kV conductor with Interconnected Transmission Owner owning the conductor up to the 138 kV bus.

**Multi Unit Auxiliary Load:** Interconnection Customer will own the 138 kV conductor connecting its FGD #1 and FGD #2 circuits and associated equipment to the Interconnected Transmission Owner 138 kV switchyard with Interconnected Transmission Owner owning the dead end structure.

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## **SCHEDULE C**

### **LIST OF METERING EQUIPMENT**

The existing metering equipment for the existing Customer Facility is owned by the Interconnection Customer and is sufficient. No new metering equipment is required.



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## **SCHEDULE D**

### **APPLICABLE TECHNICAL REQUIREMENTS AND STANDARDS**

Applicable Technical Requirements and Standards are set forth in AEP's document entitled "Requirements for Connection of New Facilities or Changes to Existing Facilities Connected to the AEP Transmission System." that is posted on the PJM website at <http://www.pjm.com/planning/design-engineering/to-tech-standards/private-aep.aspx>. These requirements and standards are not intended to require changes to existing facilities solely as a result of executing this new ISA.

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## **SCHEDULE E**

### **SCHEDULE OF CHARGES**

None

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**SCHEDULE F**

**SCHEDULE OF NON-STANDARD TERMS & CONDITIONS**

None

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**SCHEDULE G**

**INTERCONNECTION CUSTOMER'S AGREEMENT TO CONFORM WITH IRS SAFE  
HARBOR PROVISIONS FOR NON-TAXABLE STATUS**

Not Required.

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**SCHEDULE H**  
**INTERCONNECTION REQUIREMENTS FOR A**  
**WIND GENERATION FACILITY**

Not Required

AMENDMENT NO. 1  
TO  
THIRD AMENDED AND RESTATED PURCHASE AGREEMENT

THIS AMENDMENT No. 1 ("this Amendment") is made as of the 22nd day of March 2006, by and between AEP CREDIT, INC., a Delaware corporation ("Credit") and KENTUCKY POWER COMPANY, a Kentucky corporation ("Seller").

WITNESSETH:

WHEREAS, Credit and Seller are parties to the Third Amended and Restated Purchase Agreement dated as of August 25, 2004 (as amended, modified or supplemented from time to time, "the Purchase Agreement");

WHEREAS, pursuant to Section 9.1.1 of the Purchase Agreement, Credit and Seller desire to amend the Purchase Agreement upon the terms set forth below;

WHEREAS, Credit and Seller confirm that they will continue to sell and purchase Receivables on a daily basis; and

WHEREAS, Credit and Seller desire to amend the Purchase Agreement to provide for the reconciliation of the purchase price paid by Credit with respect to the purchase and sale of Receivables daily or at some other period no less frequently than weekly as mutually agreed upon by Credit and Seller in accordance with authority granted in an order of the Securities and Exchange Commission dated September 27, 2005; and

WHEREAS, Seller desires to amend and restate Section 3.1.19 of the Purchase Agreement to state that true sale opinion is being rendered by Torys, LLP;

NOW therefore, the parties agree as follows:

1. Section 2.2 of the Purchase Agreement is hereby amended and restated in its entirety as follows:
  - 2.2 Purchase Procedure. Any sale and purchase of Receivables pursuant to this Agreement will require the delivery to and acceptance by Credit by 9:00 a.m., CST, on the particular Purchase Date, at Credit's principal office set forth in Section 9.2 hereof, of a Sale and Assignment executed by one of the individuals duly authorized by Seller pursuant to the authorization set forth in Exhibit E hereto, as such authorization may be amended from time to time by written notice to Credit. Such Sale and Assignment may be delivered by Seller to Credit by facsimile transmission or by means of computer or other electronic communications, which transmission or electronic communication the parties acknowledge will constitute the duly executed Sale and Assignment of Seller for all purposes. Credit shall deliver to Seller at Seller's principal office set forth in Section 9.2 hereof a copy of each Sale and Assignment accepted by Credit, executed by one of the individuals duly authorized by Credit, promptly following the acceptance thereof by Credit. Such Sale and

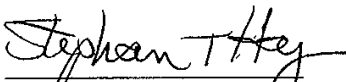
Assignment may be delivered by Credit to Seller by facsimile transmission or by means of computer or other electronic communications, which transmission or electronic communication the parties acknowledge will constitute due notification of Credit's acceptance for all purposes. Upon acceptance by Credit of the Sale and Assignment, on such Purchase Date, Credit shall allow Seller to retain from Collections received in the Depository Accounts, or shall otherwise transfer to Seller in immediately available funds, the amount of the Purchase Price with respect to the Receivables sold pursuant to such Sale and Assignment. Any Collections retained by Seller in excess of such Purchase Price, until remitted to Credit or used by Credit to purchase new Receivables from Seller, shall be held in trust for Credit by Seller. The amount of any Purchase Price not paid in full on the Purchase Date for any Receivables shall be paid by Credit no later than the next succeeding Reconciliation Date (as defined below).

Although the Purchase Price for each Receivable sold hereunder shall be due and payable in full by Credit to Seller on the date such Receivable is purchased, a precise reconciliation of the Purchase Price between Credit and Seller shall be effected no less frequently than weekly on each Business Day selected by Credit (each such date, a "Reconciliation Date") with respect to all receivables sold since the last Reconciliation Date. On each Reconciliation Date, Seller shall determine the net amount due to or from Credit with respect to all Receivables sold since the last Reconciliation Date and either Credit or Seller, as applicable, shall wire transfer such amount in immediately available funds to the account specified by Seller, in the case of amounts owed to Seller, or to the Concentration Account, in the case of amounts owed to Credit, in the manner contemplated by Section 2.7 thereof.


2. Section 3.1.19 of the Purchase Agreement is hereby amended and restated in its entirety, as follows:
  - 3.1.19 True Sale. Seller shall take such actions as are necessary on its part to ensure that the facts and assumptions set forth in each opinion issued by Torys, LLP, as counsel for Seller, relating to true sale issues, and in the certificates accompanying such opinion, remain true and correct in all material respects at all times.
3. This Amendment No. 1 shall be effective as of March 22, 2006.
4. Conditions to effectiveness: Pursuant to the Purchase Agreement, the consent of the Majority Purchasers shall have been obtained.
5. The Purchase Agreement (except as specifically amended herein) shall remain in full force and effect and said Purchase Agreement is hereby ratified and confirmed in all respects by each of the parties hereto.
6. **CONTROLLING LAW. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.**

IN WITNESS WHEREOF, the parties hereto have caused this Amendment No. 1 to be executed as of the date first written above.

AEP CREDIT, INC.

By:   
Name: Stephan T. Haynes  
Title: Assistant Treasurer

KENTUCKY POWER COMPANY

By:   
Name: Stephen P. Smith  
Title: Treasurer



***THIRD AMENDED AND RESTATED PURCHASE AGREEMENT***

THIRD AMENDED AND RESTATED PURCHASE AGREEMENT (“*Purchase Agreement*”) made and entered into on this 25<sup>th</sup> day of August, 2004, between AEP Credit, Inc., a Delaware corporation (“*Credit*”), and Kentucky Power Company, a Kentucky corporation (“*Seller*”).

WITNESSETH:

WHEREAS, American Electric Power Company, Inc. is Seller’s parent corporation and the parent corporation, either directly or indirectly, of AEP Utilities, Inc. (formerly known as Central and South West Corporation) and of Credit;

WHEREAS, subject to the terms and conditions hereof, Seller desires to sell and Credit desires to purchase, without recourse, certain accounts receivable arising from the sale and delivery of electricity, gas and other related services in the Commonwealth of Kentucky in the Seller's ordinary course of business;

WHEREAS, Credit and Seller intend the arrangements created herein to constitute a true sale of Seller's accounts receivable to Credit and not a loan or other arrangement;

WHEREAS, Credit and Seller are parties to the Second Amended and Restated Purchase Agreement dated July 25, 2003 (the “*Existing Purchase Agreement*”); and

WHEREAS, Credit and Seller desire to amend and restate the Existing Purchase Agreement pursuant to this Agreement such that the Existing Purchase Agreement continues in full force and effect as amended hereby and all obligations of each of the parties under the Existing Purchase Agreement will remain outstanding and continue in full force and effect, unpaid, unimpaired and undischarged;

NOW, THEREFORE, the parties hereto agree as follows:

I. DEFINITIONS

1.1 Certain Defined Terms. For all purposes of this Agreement, except as otherwise expressly provided herein or unless the context otherwise requires, the following terms shall have the following meanings (such meanings to be equally applicable to both the singular and plural forms of the terms defined):

1.1.1 Administrative Agent. “Administrative Agent” means Bank One, NA (Main Office Chicago) in its capacity as administrative agent under the Receivables Purchase Agreement and any successor administrative agent thereunder.

1.1.2 Adverse Claim. “Adverse Claim” means a lien, security interest, charge, encumbrance or other adverse right or claim of any kind of any Person, but does not include any

loss that is due solely to the financial inability or bad faith failure of any Customer to pay at maturity any amount due and payable in respect of a Receivable.

1.1.3 AEP Services Account. "AEP Services Account" means the account listed on Exhibit I-C to this Agreement in the name of American Electric Power Service Corporation or any other account established in accordance with Section 6.5 hereof.

1.1.4 AEP Services Account Agreement. "AEP Services Account Agreement" means the agreement substantially in the form of Exhibit J to this Agreement with such changes to such form as are reasonably acceptable to the Administrative Agent.

1.1.5 AEP Services Account Bank. "AEP Services Account Bank" means any institution at which the AEP Services Account is maintained.

1.1.6 AEP Utilities Account. "AEP Utilities Account" means account number 01891740044 in the name of AEP Utilities, Inc. at Huntington National Bank.

1.1.7 Agency Agreement. "Agency Agreement" means the Third Amended and Restated Agency Agreement of even date herewith, among Credit, Agent and the Administrative Agent, as the same may be amended from time to time.

1.1.8 Agent. "Agent" means (a) Seller or (b) any Person engaged by Credit to service, administer and collect the Receivables on behalf of Credit pursuant to the Agency Agreement.

1.1.9 Billed Receivable. "Billed Receivable" means an Outstanding Receivable for which, as of the time of determination, a Customer Bill has been rendered.

1.1.10 Budget Account Receivable. "Budget Account Receivable" means a contract right of Seller to receive payment for the sale and delivery of electricity, gas and other related services, regardless of the level of such services delivered, including rights of Seller pursuant to average monthly payment plans or other special payment arrangements which Seller may from time to time enter into with any Customer.

1.1.11 Business Day. "Business Day" means any day other than a Saturday, Sunday, Seller holiday, Credit holiday or public holiday or the equivalent for banks of the Federal Reserve System. Each party shall provide the other party, by December 1 of each year during the term of this Agreement, with a schedule of its holidays for the following calendar year.

1.1.12 Card Agreement. "Card Agreement" means the agreement between Seller and a Merchant Processor or Card Company whereby such Merchant Processor or Card Company agrees to purchase, pay or otherwise reimburse Seller for each Receivable for the payment of which Seller has accepted such Merchant Processor or Card Company's Credit/Charge Card.

1.1.13 Card Company. "Card Company" means any Person that is in the business of issuing nationally-recognized credit or charge cards to consumers, including, but not limited to,

any issuer of a credit or charge card bearing the American Express, Discover Card, MasterCard, NOVUS or Visa logo, servicemark or trademark.

1.1.14 Collection Account. "Collection Account" is defined in the Receivables Purchase Agreement.

1.1.15 Collections. "Collections" means, with respect to any Receivable, all cash collections, negotiable instruments, other cash or non-cash proceeds or any other form of payment in respect of any such Receivable and shall include all proceeds of any Receivable within the meaning of Section 9-102(64) of the UCC. "Collections" shall also mean that portion of any security deposit applied in satisfaction of a Receivable. Each Credit Card Receivable, and all Collections in respect thereof, shall constitute Collections in respect of the Receivable for the payment of which the Seller accepted a Credit/Charge Card in the related Credit Card Transaction.

1.1.16 Concentration Account. "Concentration Account" is defined in the Receivables Purchase Agreement.

1.1.17 Conduit Purchaser. "Conduit Purchaser" is defined in the Receivables Purchase Agreement.

1.1.18 Committed Purchaser. "Committed Purchaser" is defined in the Receivables Purchase Agreement.

1.1.19 Credit/Charge Card. "Credit/Charge Card" means any valid and unexpired credit or charge card, plate or like device bearing a logo, servicemark or trademark for American Express, Discover Card, MasterCard, NOVUS or Visa and issued by a Card Company to an obligor on any Receivable of a Seller which card Seller has agreed to accept for the payment of such Receivable in accordance with a Card Agreement between Seller and such Card Company or a Merchant Processor Agreement between the Seller and a Merchant Processor.

1.1.20 Credit Card Receivable. "Credit Card Receivable" means a Receivable owing to Seller from a Card Company or a Merchant Processor, arising out of, or in connection with, a Credit Card Transaction.

1.1.21 Credit Card Transaction. "Credit Card Transaction" means, with respect to any Receivable, the acceptance by Agent of a Credit/Charge Card for the payment of such Receivable in accordance with the provisions of the applicable Card Agreement and/or Merchant Processor Agreement.

1.1.22 Credit and Collection Procedure. "Credit and Collection Procedure" means the credit and collection policies and practices to be followed by Agent in respect of Receivables, as set forth in Exhibit D to the Agency Agreement, with such changes to such credit and collection policies and practices as are permitted under Section 4.12 hereof, or as may be required by applicable statutes, rules and regulations.

1.1.23 Customer. "Customer" means any Person obligated to make payment to Seller for purchases from Seller of electricity, gas and other related services.

1.1.24 Customer Bill. "Customer Bill" means an invoice or any other evidence of a Customer's obligation to Seller rendered to a Customer for payment to Seller for purchases from Seller of electricity, gas and other related services.

1.1.25 Depository Account. "Depository Account" means one of the concentration accounts, depository accounts or similar accounts listed on Exhibit I-A to this Agreement and any other such account established in accordance with Section 6.5 hereof.

1.1.26 Depository Account Agreement. "Depository Account Agreement" means each agreement substantially in the form of Exhibit G to this Agreement with such changes to such form as are reasonably acceptable to the Funding Agents and any other agreement pursuant to which Seller has established a Depository Account.

1.1.27 Depository Account Bank. "Depository Account Bank" means any institution at which a Depository Account is maintained.

1.1.28 Estimation Correction Amount. "Estimation Correction Amount" means, as of any date of determination, (a) the Face Amount of Receivables for which Customer Bills were posted on such date, minus (b) that portion of the Face Amount that Credit has previously paid to Seller for the Receivables represented by such Customer Bills.

1.1.29 Event of Bankruptcy. "Event of Bankruptcy" means :

(a) that Seller shall admit in writing its inability, or fail generally, to pay its debts as they become due;

(b) (i) a proceeding shall have been instituted in a court having jurisdiction in the premises seeking a decree or order for relief in respect of Seller in an involuntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or for the appointment of a receiver, liquidator, assignee, trustee, custodian, sequestrator, conservator or other similar official of Seller or for any substantial part of its property, or for the winding-up or liquidation of its affairs and (ii) either such proceedings shall remain undismissed or unstayed for a period of sixty (60) days or any of the actions sought in such proceedings shall occur;

(c) the commencement by Seller of a voluntary case under any applicable bankruptcy, insolvency or other similar law now or hereafter in effect, or Seller's consent to the entry of an order for relief in an involuntary case under any such law, or consent to the appointment of or taking possession by a receiver, liquidator, assignee, trustee, custodian, sequestrator, conservator or other similar official of Seller or for any substantial part of its property, or any general assignment for the benefit of creditors; or

(d) Seller shall take any corporate action in furtherance of any of the actions set forth in the preceding clause (a), (b) or (c).

1.1.30 Face Amount. "Face Amount" means (a) for a Billed Receivable, the unpaid balance thereof duly owed to Seller by a Customer (excluding any portion of the unpaid balance relating to charges which are not Outstanding Receivables), (b) for an Unbilled Receivable, the estimated dollar amount due from a Customer arising from the sale and delivery by Seller to Customer of electricity, gas and other related services in the ordinary course of business (excluding any amount due relating to charges which are not Outstanding Receivables), and (c) for a Budget Account Receivable, the contractual amount due and owing for the sale and delivery by Seller to Customer of electricity, gas and other related services in the ordinary course of business; in any such case determined on the Purchase Date on which such Outstanding Receivable is purchased by Credit hereunder (excluding any amount due relating to charges which are not Outstanding Receivables). In the calculation of "Face Amount", there shall be no double-counting of Credit Card Receivables and Receivables for the payment of which the Seller accepted Credit/Charge Cards in the related Credit Card Transaction.

1.1.31 Funding Agent. "Funding Agent" is defined in the Receivables Purchase Agreement.

1.1.32 Governmental Approvals. "Governmental Approvals" means all consents, approvals, authorizations, orders, registrations or qualifications of any Person or public authority as may be required by any appropriate regulatory authority in respect of the transactions contemplated hereby.

1.1.33 Lock-Box. "Lock-Box" means each postal box or code listed on Exhibit I-B to this Agreement and any other such postal box or code established in accordance with Section 6.5 hereof.

1.1.34 Material Adverse Effect. "Material Adverse Effect" means a material adverse effect on (a) the ability of Seller to perform its material obligations under this Agreement or the Agency Agreement (other than as a result of any deterioration in the financial condition of the Seller), (b) the validity or enforceability of, or collectibility of, amounts payable by Seller under this Agreement or the Agency Agreement, (c) the status, existence, perfection or priority of the interest of Credit in the Receivables, or (d) the validity, enforceability or collectibility of all or any material portion of the Receivables.

1.1.35 Merchant Processor. "Merchant Processor" means any Person which is engaged customarily in the business of acting as a merchant processor for Credit/Charge Cards.

1.1.36 Merchant Processor Agreement. "Merchant Processor Agreement" means the agreement between Seller and a Merchant Processor whereby such Merchant Processor agrees to purchase, pay or otherwise reimburse Seller for receivables arising out of a Credit Card Transaction.

1.1.37 Mortgage. "Mortgage" means the Mortgage and Deed of Trust dated May 1, 1949 between Seller and Bankers Trust Company, as trustee, as the same may be amended and supplemented from time to time.

1.1.38 Outstanding Receivable. "Outstanding Receivable" means any of Seller's rights to payment, whether or not evidenced by a Customer Bill, (i) arising from the sale and delivery (on or before 12:01 a.m., of the Seller's Business Day preceding the applicable Purchase Date) of electricity, gas and other related services in the ordinary course of business, including without limitation, Billed Receivables, Unbilled Receivables and Budget Account Receivables or (ii) constituting a Credit Card Receivable. Outstanding Receivable shall not include any securitized transition charges or transition property created pursuant to a financing order issued by Seller's state public utility regulatory commission.

1.1.39 Person. "Person" means any natural person, corporation, company, voluntary association, partnership, joint venture, trust (including a business trust), unincorporated organization or government (or any agency, instrumentality or political subdivision thereof).

1.1.40 P.O. Box Transfer Notice. "P.O. Box Transfer Notice" means an agreement substantially in the form of Exhibit O to the Receivables Purchase Agreement, or such other agreement in form and substance reasonably acceptable to the Funding Agents.

1.1.41 Purchase Date. "Purchase Date" means each day on or after the date hereof on which Outstanding Receivables are purchased by Credit from Seller pursuant to this Agreement.

1.1.42 Purchase Price. "Purchase Price" means the price paid by Credit to Seller for the purchase by Credit from Seller of Receivables on any Purchase Date pursuant to this Agreement.

1.1.43 Receivable. "Receivable" means any Outstanding Receivable that has been purchased by Credit from Seller pursuant to this Agreement.

1.1.44 Receivables Purchase Agreement. "Receivables Purchase Agreement" means the Second Amended and Restated Receivables Purchase Agreement dated as of the date hereof among Credit, American Electric Power Service Corporation, as servicer, the persons party thereto as conduit purchasers, committed purchasers and funding agents, and Bank One, NA (Main Office Chicago), as administrative agent, as the same may be amended and supplemented from time to time.

1.1.45 Sale and Assignment. "Sale and Assignment" means the sale and assignment agreement in substantially the form attached hereto as Exhibit A.

1.1.46 Servicer. "Servicer" means American Electric Power Service Corporation in its capacity as servicer under the Receivables Purchase Agreement and any successor servicer thereunder.

1.1.47 Sub-Agent. "Sub-Agent" is defined in the Agency Agreement.

1.1.48 Termination Date. "Termination Date" means the date specified for termination of Credit's obligation to purchase Outstanding Receivables hereunder in the notice contemplated by Section 7.1 hereof.

1.1.49 Unbilled Receivable. "Unbilled Receivable" means any Outstanding Receivable for which, as of the time of determination, a Customer Bill has not been rendered.

1.1.50 UCC. "UCC" means the Uniform Commercial Code as from time to time in effect in the State or States in which the Seller sells electricity, gas or related services.

## II. PURCHASE OF OUTSTANDING RECEIVABLES

2.1 Purchases. Purchases of Outstanding Receivables made on any Purchase Date will be made at a Purchase Price determined in accordance with page 2 of Exhibit A hereto. In accordance with the purchase procedure set out in Section 2.2 hereof and subject to and upon the terms and conditions set forth herein, on each Purchase Date, Credit shall purchase from Seller, without recourse, and Seller shall sell and assign to Credit, all right, title and interest in and to all of the Outstanding Receivables of Seller described in the applicable Sale and Assignment, including all right, title and interest in all Collections whenever received by Seller. Credit and Seller hereby agree that each such purchase of Outstanding Receivables shall constitute a true sale of all rights, title and interest in and to such Outstanding Receivables and to all amounts paid in respect of such Outstanding Receivables.

It is, further, not the intention of Seller and Credit that the purchases of Outstanding Receivables hereunder be deemed a grant of a security interest in all right, title and interest of Seller in and to such Outstanding Receivables to secure a debt or other obligation of Seller. However, if notwithstanding the intention of the parties hereto, the purchase of the Outstanding Receivables hereunder is characterized as a secured loan rather than a sale, this Agreement shall constitute a security agreement under applicable law. For this purpose, Seller hereby grants to Credit a security interest in all of Seller's right, title and interest in, to and under all of the Outstanding Receivables, whether now existing or hereafter acquired or arising and all Collections with respect thereto. Credit shall have, with respect to the property described in this paragraph of Section 2.1, and in addition to all the other rights and remedies available to Credit under this Agreement and applicable law, any additional rights and remedies of a secured party under any applicable UCC.

2.2 Purchase Procedure. Any sale and purchase of Receivables pursuant to this Agreement will require the delivery to and acceptance by Credit by 9:00 a.m., CST, on the particular Purchase Date, at Credit's principal office set forth in Section 9.2 hereof, of a Sale and Assignment executed by one of the individuals duly authorized by Seller pursuant to the authorization set forth in Exhibit E hereto, as such authorization may be amended from time to time by written notice to Credit. Such Sale and Assignment may be delivered by Seller to Credit by facsimile transmission or by means of computer or other electronic communications, which transmission or electronic communication the parties acknowledge will constitute the duly executed Sale and Assignment of Seller for all purposes. Upon acceptance by Credit of the Sale

and Assignment, on such Purchase Date, Credit shall wire transfer the respective Purchase Price in immediately available funds to the account specified by Seller, in the manner contemplated by Section 2.7 hereof. Credit shall deliver to Seller at Seller's principal office set forth in Section 9.2 hereof a copy of each Sale and Assignment accepted by Credit, executed by an authorized officer of Credit, promptly following the acceptance thereof by Credit. Such Sale and Assignment may be delivered by Credit to Seller by facsimile transmission or by means of computer or other electronic communications, which transmission or electronic communication the parties acknowledge will constitute due notification of Credit's acceptance for all purposes.

2.3 Determination of Unbilled Receivable. Any determination by Seller of the Face Amount of an Unbilled Receivable shall be a reasonable, good faith estimate of the appropriate dollar amount of such Outstanding Receivable, based on Seller's most recent projections for billing cycles not yet invoiced.

2.4 Information Concerning Unbilled Revenue Schedule. Within fifteen Business Days following the end of each calendar month, Seller shall deliver to Credit information concerning Seller's unbilled revenue schedule, in the form of Exhibit C hereto, for the next six calendar months. Seller shall at all times maintain a rolling six month unbilled revenue schedule based upon Seller's most recent revenue projections.

2.5 Estimation Correction Amount. The Estimation Correction Amount shall be calculated by Credit on each Business Day on which a cycle is billed, and shall be included in the calculation of the Purchase Price for Receivables on each Purchase Date, as set forth in Exhibit A hereto.

2.6 Carrying Cost Variance Payment. At the end of each calendar month, a carrying cost variance payment shall be calculated in accordance with Exhibit F. Seller or Credit, as the case may be, shall wire transfer such carrying cost variance payment to the other party not later than the fifth Business Day of the succeeding month, in the manner contemplated by Section 2.7 hereof.

2.7 Coordination of Payments. Credit and Seller shall use their best efforts to coordinate the wire transfer of funds under this Agreement and under the Agency Agreement so as to avoid multiple daily wire transfers (by means of netting payments to be made by each of them on such date); provided, however, that nothing in this Section 2.7 is intended to modify in any respect any obligation of Seller or Credit to make a payment when due hereunder.

2.8 Purchase Price Credit Adjustments. If on any day:

- (a) the Face Amount of a Receivable is:
  - (i) reduced as a result of any discount or any adjustment or otherwise by Seller (other than cash Collections on account of the Receivables or reductions recoverable from the Agent pursuant to Section 4.1.2 of the Agency Agreement),



- (ii) reduced or canceled as a result of the exercise of a right of setoff in respect of any claim by any Person (whether such claim arises out of the same or a related transaction or an unrelated transaction), or
- (b) any of the representations and warranties set forth in Section 3.1.4, Section 3.1.5 or Section 3.1.6 are no longer true with respect to any Receivable, or
- (c) the amount of any Collections with respect to any Receivable which are received by any Sub-Agent and which Seller is aware have not been remitted to a Depository Account within five (5) Business Days after the date such Sub-Agent is contractually required to remit such amount,

then, in such event, Credit shall be entitled to a credit (each, a "Purchase Price Credit") against the Purchase Price otherwise payable hereunder equal to the amount of such reduction or cancellation, in the case of any reduction described in clause (a) above, the Face Amount of such Receivable (less Collections received in respect thereof), in the case of any breach of representation and warranty described in clause (b) above, or the amount of such Collections, in the case of any failure to remit Collections described in clause (c) above. If such Purchase Price Credit exceeds the Purchase Price of the Receivables sold hereunder on any day, then Seller shall pay the remaining amount of such Purchase Price Credit in cash within five (5) Business Days thereafter.

### III. REPRESENTATIONS AND WARRANTIES

3.1 Representations and Warranties of Seller. Seller represents and warrants to Credit as follows:

3.1.1 Organization and Power. Seller is a corporation duly organized, validly existing and in good standing under the laws of the Commonwealth of Kentucky, with all requisite corporate power and authority to own its properties and to transact the business in which it is now engaged or in which it presently proposes to engage. Seller's organizational identification number issued by Seller's state of incorporation is 0028317. Seller has only one state of incorporation. Seller is qualified to do business and is in good standing in all other jurisdictions in the United States necessary to transact the business in which it is now engaged, except where the failure to qualify would not have a material adverse effect on the transactions herein contemplated.

3.1.2 No Restrictions. The sale of Receivables pursuant to this Agreement, the performance of Seller's obligations under this Agreement and the consummation of the transactions herein contemplated do not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under, or result in the creation or imposition of any Adverse Claim upon any of Seller's property or assets pursuant to the terms of any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument (other than this Agreement) to which Seller is a party or by which any of Seller's property or assets is subject, nor will such action result in any violation of the provisions of Seller's Articles of Incorporation or By-laws or

any statute or any order, rule or regulation of any court or governmental agency or body of the United States, any State or any political subdivision of either having jurisdiction over Seller or any of Seller's properties; and no consent, approval, authorization, order, registration or qualification of or with any such court or any such regulatory authority or other such governmental agency or body (other than the Governmental Approvals and such other consents, approvals, authorizations, orders, registrations or qualifications as have been obtained) is required for the sale of Receivables hereunder or the consummation by Seller or the other transactions contemplated by this Agreement.

3.1.3 Authorization and Effect of Agreement. This Agreement has been duly authorized, executed and delivered by Seller and constitutes Seller's valid and legally binding obligation, enforceable against Seller in accordance with its terms, subject as to enforcement to bankruptcy, insolvency, reorganization and other similar laws of general applicability relating to or affecting creditors, rights and to general principles of equity.

3.1.4 Title of Receivables. Seller is the owner (immediately prior to sale) of all Receivables and rights to Collections in respect thereof sold by Seller to Credit hereunder, free from any Adverse Claim, and Seller, at its sole cost and expense, shall defend the Receivables and rights to Collections in respect thereof against any and all Adverse Claims (except for any Adverse Claim arising from any act or omission of Credit or an Agent other than Seller) asserted by any Person at any time. The Face Amount of each Receivable shall represent and constitute the valid and binding obligation of the respective Customer to pay such Face Amount, subject, however, in the case of Unbilled Receivables to the determination and estimation correction procedures set forth in Sections 2.3 and 2.5 hereof.

3.1.5 No Financing Statements. There is no financing statement under the UCC of any jurisdiction (or similar statement or instrument of registration or otherwise under the laws of any jurisdiction) now on file or registered in any public office covering any interest of any kind in the Outstanding Receivables or any Collections in respect thereof, or intended so to be, and Seller will neither execute nor file in any public office any financing statement (or similar statement or instrument of registration or otherwise under the laws of any jurisdiction) relating to such Outstanding Receivables or any Collections in respect thereof, except for the UCC financing statements filed or to be filed in respect of and covering the purchase of the Receivables hereunder.

3.1.6 Perfection. All filings and recordings (including UCC financing statement filings) required to perfect the title of Credit in all Receivables (and all Collections in respect thereof) when sold and when value is received therefor have been accomplished and are in full force and effect, and Seller shall at Seller's expense perform all acts and execute all documents reasonably requested by Credit at any time to evidence, perfect, maintain and enforce the title and interest of Credit in the Receivables (and all Collections in respect thereof) and the priority thereof. This Agreement, together with the filing of the financing statements contemplated hereby, is effective to transfer to Credit (and Credit shall acquire from Seller) legal and equitable title to, with the right to sell and encumber each Receivable, together with the Collections with respect thereto, free and clear of any Adverse Claim.

3.1.7 Names; Principal Place of Business. (i) The following names, legal name: Kentucky Power Company(changed from Kentucky and West Virginia Power Company on June 1, 1954), trade name(s): American Electric Power (in the state of Kentucky) constitute all present and former corporate names under which Seller has transacted business, (ii) the chief executive office is, and for at least 6 months has been, located at 1 Riverside Plaza, in Franklin County, Ohio and Seller at all times has had more than one place of business in Ohio or a single place of business in Ohio located in Franklin County.

3.1.8 Financial Statements. Seller has delivered to Credit the balance sheets and statements of capitalization and the related statements of income and retained earnings of Seller (a) for the period ended December 31, 2003, accompanied by the related opinion of Seller's auditors, as filed on Form 10-K and (b) for the periods ended March 31, 2004 and June 30, 2004, as filed on Forms 10-Q with the Securities and Exchange Commission. All such financial statements present fairly the financial position of Seller as of the respective dates indicated and the results of operations for the respective periods.

3.1.9 Investment Company. Seller is not an "investment company" or a company "controlled" by an "investment company" within the meaning of the Investment Company Act of 1940, as amended.

3.1.10 No Default or Unmatured Default. As of the date hereof the Mortgage has been satisfied and discharged

3.1.11 Bulk Sales Act. No transaction contemplated hereby requires compliance with any bulk sales act or similar law.

3.1.12 Actions, Suits. There are no actions, suits or proceedings pending, or to the best of Seller's knowledge, threatened, against or affecting Seller, or any of its properties, in or before any court, arbitrator or other body, that could reasonably be expected to have a Material Adverse Effect. Seller is not in default with respect to any order of any court, arbitrator or governmental body which default could reasonably be expected to have a Material Adverse Effect.

3.1.13 Accuracy of Information. All information heretofore furnished by Seller to Credit (or its assigns) for purposes of or in connection with this Agreement or the Agency Agreement or any transaction contemplated hereby or thereby is, and all such information hereafter furnished by Seller to Credit (or its assigns) will be, true and accurate in every material respect on the date such information is stated or certified and shall not be otherwise misleading in light of the circumstances under which such information was provided.

3.1.14 Use of Proceeds. No proceeds of the sale of Receivables hereunder will be used (a) for a purpose that violates, or would be inconsistent with, Regulation T, U or X promulgated by the Board of Governors of the Federal Reserve System from time to time or (b) to acquire any security in any transaction which is subject to Section 13 or 14 of the Securities Exchange Act of 1934, as amended.

3.1.15 Material Adverse Effect. Since December 31, 2003, no event has occurred that would have a Material Adverse Effect.

3.1.16 Compliance with Law. Seller has complied in all respects with all applicable laws, rules, regulations, orders, writs, judgments, injunctions, decrees or awards to which it may be subject, except where the failure to so comply could not reasonably be expected to have a Material Adverse Effect as described in clauses (b), (c), (d) and (e) of the definition thereof.

3.1.17 Compliance with Credit and Collection Procedure. Seller has complied in all material respects with the Credit and Collection Procedure with regard to each Receivable and the related contract, and has not made any change to such Credit and Collection Procedure except as permitted hereunder.

3.1.18 Payments to Seller. With respect to each Receivable, the Purchase Price received by Seller constitutes reasonably equivalent value in consideration therefor and such transfer was not made for or on account of an antecedent debt or with actual intent to hinder, delay or defraud any entity to which Seller is indebted or was indebted at the time of such transfer.

3.1.19 True Sale. Seller shall take such actions as are necessary on its part to ensure that the facts and assumptions set forth in the opinion issued by Milbank, Tweed, Hadley & McCloy, LLP, as counsel for Seller, in connection with the closing of the Receivables Purchase Agreement, and relating to true sale issues, and in the certificates accompanying such opinion, remain true and correct in all material respects at all times.

3.1.20 Instructions to Customers and Sub-Agents. Seller has instructed (x) all Customers to remit all Collections directly to a Sub-Agent, to a Lock-Box, to the AEP Utilities Account or to a Depository Account to which only amounts owed to Seller are deposited, and (y) all Sub-Agents to remit all Collections directly to a Depository Account to which only amounts owed to Seller are deposited.

3.2 Representations and Warranties of Credit. Credit represents and warrants to Seller as follows:

3.2.1 Organization and Power. Credit is a corporation duly organized, validly existing and in good standing under the laws of the State of Delaware with all requisite corporate power and authority to own its properties and to transact the business in which it is now engaged or in which it proposes to engage.

3.2.2 No Restrictions. The purchase by Credit of Receivables pursuant to this Agreement and the consummation of the transactions herein contemplated will not conflict with or result in a breach of any of the terms or provisions of, or constitute a default under the terms of, any indenture, mortgage, deed of trust, loan agreement or other agreement or instrument to which Credit is a party or by which Credit is bound or to which any of the property or assets of Credit is subject, nor will such action result in any violation of the provisions of the certificate of incorporation or the by-laws of Credit or any statute or any order, rule or regulation of any court

or governmental agency or body having jurisdiction over Credit or any of Credit's properties; and no consent, approval, authorization, order, registration or qualification of or with any court or any such regulatory authority or other governmental agency or body (other than the Governmental Approvals and such other consents, approvals, authorizations, orders, registrations or qualifications as have been obtained) is required for the purchase by Credit of Receivables hereunder or the consummation by Credit of the other transactions contemplated by this Agreement.

3.2.3 Authorization and Effect of Agreement. This Agreement has been duly authorized, executed and delivered by Credit and constitutes the valid and legally binding obligation of Credit enforceable against Credit in accordance with its terms, subject as to enforcement to bankruptcy, insolvency, reorganization and other similar laws of general applicability relating to or affecting creditors' rights and to general principles of equity.

3.2.4 Purchase for Credit's Account. Any purchase by Credit of Receivables pursuant to this Agreement will be for the account of Credit and not as agent for or with a view toward resale to any other party; provided, however, that the provisions of this Section 3.2.4 shall not prevent Credit from engaging in any financing transaction relating to the Receivables.

3.2.5 Adequate Financing. Credit shall at all times maintain available lines of credit and financing arrangements that are sufficient to support its obligation to purchase Outstanding Receivables hereunder.

#### IV COVENANTS OF SELLER

4.1 Preservation of Corporate Existence. Seller shall preserve and maintain its corporate existence, rights, franchises and privileges in the jurisdiction of its incorporation (as such rights, franchises and privileges may be modified from time to time by applicable law), and qualify and remain qualified in good standing as a foreign corporation in any other jurisdiction where any Outstanding Receivable arose and where such qualification is necessary to permit the enforcement of the obligations under Receivables against the respective Customers.

4.2 Maintenance of Offices. Seller shall maintain originals or duplicates of the principal documents (including, without limitation, computer tapes and disks) evidencing all Outstanding Receivables and Customer Bills at the address set forth in Section 9.2 hereof, and Seller shall not move its principal executive office or such documents unless (a) Seller shall have given to Credit not less than 45 days prior written notice of its intention to do so, clearly describing the new location, and (b) Seller shall have taken such action, satisfactory to Credit, to maintain the title and interest and priority of Credit in the Receivables and Collections in respect thereof at all times fully perfected and in full force and effect.

4.3 Continuing Obligations. Seller will duly fulfill all obligations on its part to be fulfilled under or in connection with the Receivables, and will do nothing to impair the rights of Credit in the Receivables; provided, however, that an adjustment or compromise of a Receivable

in accordance with the Agency Agreement shall not be deemed to be a violation of this Section 4.3.

4.4 Further Action. Seller will make, execute or endorse, acknowledge, and file or deliver to Credit from time to time such vouchers, invoices, schedules, confirmatory assignments, conveyances, transfer endorsements, powers of attorney, certificates, reports and other assurances or instruments and take such further steps relating to the Receivables and Collections in respect thereof as Credit may reasonably request for the protection of the rights of Credit hereunder.

4.5 Approvals. Seller shall use its best efforts to obtain, and to assist Credit in obtaining, any and all consents, approvals, authorizations, orders, registrations and qualifications which may be required from time to time in the future to consummate the transactions contemplated by this Agreement, including without limitation the Governmental Approvals.

4.6 Sales, Adverse Claims, Etc. Except as otherwise herein provided, Seller shall not sell, assign (by operation of law or otherwise), dispose of, or create or suffer to exist any Adverse Claim upon or with respect to, Seller's undivided interest in any Receivable or Collections in respect thereof or assign any right to receive income in respect thereof. Without limiting the generality of the foregoing, Seller will not claim any ownership or other interest in the Receivables and will respond to third party inquiries with respect to the ownership of the Receivables by stating that such ownership has been entirely transferred to Credit.

4.7 Extension or Amendment of Receivables. Without the prior written consent of Credit, Seller shall not extend, amend or otherwise modify the terms of any Receivable; provided, however, that Seller may do so to the extent permitted by the Agency Agreement or as provided in the Credit and Collection Procedure.

4.8 Compliance with Laws, Etc. Seller shall comply in all material respects with applicable laws, rules, regulations and orders applicable to it, its business and properties, and all of its Outstanding Receivables.

4.9 Keeping of Records and Books of Account. Seller shall at its sole cost and expense maintain and implement, or cause to be maintained and implemented, administrative and operating procedures, and keep and maintain, or cause to be kept and maintained, all documents, books, records and other information including, without limitation, all tapes, disks or other electronically stored or computerized programs, data, records or documents, reasonably necessary or advisable for the calculation and collection of all Receivables, in accordance with the Agency Agreement. Such books and records shall appropriately reflect the sale of such Receivables to Credit.

4.10 Inspection. At any time and from time to time during regular business hours, Seller shall permit Credit, or Credit's agents or representatives (including the Agent), any Funding Agent or agents or representatives of any lender providing financing to Credit upon reasonable notification to Seller, for the purpose of protecting Credit's (and its assigns') interests

hereunder, to examine and make copies of and abstracts from all books, records and documents (including, without limitation, computer tapes and disks) in the possession or under the control of Seller relating to Receivables, Collections in respect thereof, the Depository Accounts and Lock-Boxes.

4.11 Credit and Collection Procedures. Agent shall comply in all material respects with the Credit and Collection Procedure.

4.12 Change in Business or Credit and Collection Procedure. Without the written consent of Credit, Seller shall not make any change in the character of its business and the Agent shall not make any change in the Credit and Collection Procedure which change would, in either case, impair the collection of Receivables.

4.13 Annual Financial Audit. In connection with Seller's annual independent financial audit, Seller shall instruct its independent public accounting firm to audit the accounts receivable records maintained by Seller in accordance with the audit outline set forth in Exhibit D hereto and to furnish the results of such audit to Credit's independent public accountant.

4.14 Financial Statements. Within 45 days of the end of each fiscal quarter (except for the fourth fiscal quarter) and 90 days of the end of each fiscal year, Seller shall deliver to Credit balance sheets and statements of capitalization and related statements of income and retained earnings of Seller, and such fiscal year financial statements shall be accompanied by an opinion of Seller's independent public accounting firm.

4.15 Card and Merchant Processor Agreements. Seller shall not enter into any Card Agreement or Merchant Processor Agreement with any Card Company or Merchant Processor which does not have an unsecured long-term credit rating of at least "A3" by Moody's Investors Service or "A-" by Standard & Poor's Ratings Service, a division of The McGraw Hill Companies, Inc. at the time such Card Agreement or Merchant Processor Agreement is entered into.

4.16 Orders of State Commission. Seller shall deliver to Credit any new or modified or amended order, including, without limitation, any order establishing Seller's allowed return on common equity, the "**ROCE**", received by Seller from any state public utility regulatory commission.

4.17 No Petition. Seller shall not at any time institute against Credit, or join in any institution against Credit, any bankruptcy, reorganization, arrangement, insolvency or liquidation proceedings, or other proceedings under any United States federal or state bankruptcy or similar law. Seller shall not at any time institute against any Conduit Purchaser, or join in any institution against any Conduit Purchaser, any bankruptcy, reorganization, arrangement, insolvency or liquidation proceedings, or other proceedings under any United States federal or state bankruptcy or similar law, until the expiration of one year and one day after payment in full of all outstanding indebtedness of such Conduit Purchaser.

4.18 Confidentiality. Seller shall maintain and shall cause each of its employees and officers to maintain the confidentiality of any confidential proprietary information with respect to the Conduit Purchasers, the Committed Purchasers, the Funding Agents, the Administrative Agent and their respective businesses, obtained by it in connection with the structuring, negotiating and execution of the transactions contemplated by the Receivables Purchase Agreement, except that Seller and its officers and employees may disclose such information to Seller's external accountants and attorneys and as required by any applicable law or order of any judicial or administrative proceeding.

4.19 Notice of Defaults and Unmatured Defaults. Seller shall provide written notice, as soon as it has knowledge, to (i) Credit, (ii) the Servicer and (iii) the Administrative Agent of (x) any default or event which, with the giving of notice or the passage of time or both, would constitute a default has occurred under the Mortgage or (y) the creation of any Adverse Claim, or the occurrence of any event which, with the giving of notice or the passage of time or both, would result in the creation of any Adverse Claim, on the Receivables or the Collections pursuant to the Mortgage or any other mortgage, agreement, instrument or filing.

4.20 Compliance Certificate. Seller shall furnish to Credit, together with the financial statements required hereunder, a compliance certificate substantially in the form of Exhibit H hereto signed by the chief financial officer of Seller and dated the date of such annual financial statement or such quarterly financial statement, as the case may be.

4.21 Shareholders Statements. Except if otherwise publicly available, upon the request of Credit (or its assigns), Seller shall furnish to Credit (or its assigns), promptly upon the furnishing thereof to the shareholders of Seller, copies of all financial statements so furnished.

4.22 S.E.C. Filings. Except if confidential or otherwise publicly available, upon the request of Credit (or its assigns), Seller shall furnish to Credit (or its assigns), promptly upon the filing thereof, copies of all registration statements and annual, quarterly, monthly or other regular reports which Seller or any of its subsidiaries files with the Securities and Exchange Commission.

4.23 Change in Credit and Collection Procedure. Seller shall furnish to Credit, at least thirty (30) days prior to the effectiveness of any material change in or amendment to the Credit and Collection Procedure, a copy of the Credit and Collection Procedure then in effect and a notice indicating such change or amendment.

4.24 Other Information. Seller shall furnish to Credit, promptly from time to time, such other information, documents, records or reports relating to the Receivables as Credit (or its assigns) may from time to time reasonably request in order to protect the interests of Credit (and its assigns) under or as contemplated by this Agreement.

4.25 Notices. Until the Receivables Purchase Agreement has been terminated and all obligations of the Seller thereunder have been satisfied in full, Seller will notify Credit (and its assigns) in writing of any of the following promptly upon any of the president, controller or



treasurer of Seller having actual knowledge thereof, describing the same and, if applicable, the steps being taken with respect thereto:

(a) Judgment and Proceedings. the entry of any judgment or decree against Seller if the amount of any such judgment or decree exceeds \$25,000,000;

(b) Material Adverse Effect. the occurrence of any event or condition that has, or could reasonably be expected to have, a Material Adverse Effect (including, without limitation, the failure of Seller to perform or observe any of the terms of this Agreement where such failure could reasonably be expected to have a Material Adverse Effect);

(c) Defaults Under Other Agreements. the occurrence of a default or an event of default under any other financing arrangement pursuant to which Seller is a debtor or an obligor if the amount of such financing arrangement exceeds \$25,000,000;

(d) Downgrade of Seller. any downgrade in the rating of any indebtedness of Seller by Standard and Poor's Ratings Services or by Moody's Investors Service, Inc., setting forth the indebtedness affected and the nature of such change; and

(e) Enforceability of this Agreement. the occurrence of any event which causes this Agreement to cease to be the valid and binding obligation of Seller, enforceable against it in accordance with its terms.

4.26 Marking of Records and Books. Seller shall on or prior to the date hereof, mark its master data processing records and other books and records relating to the Receivables with a legend, acceptable to Credit (or its assigns), describing Credit's ownership interests in the Receivables and further describing the interests of the Administrative Agent under the Receivables Purchase Agreement, for the benefit of the Committed Purchasers and Conduit Purchasers.

4.27 Compliance with Contracts. Seller shall timely and fully perform and comply with all provisions, covenants and other promises required to be observed by it under the contract related to each Receivable except where failure to so perform or comply could not reasonably be expected to materially adversely effect the collectibility of such Receivable. Seller shall pay when due any taxes payable in connection with the Receivables, exclusive of taxes on or measured by income or gross receipts of Credit and its assigns, other than such taxes that are being contested in good faith by appropriate proceedings, for which adequate reserves in accordance with generally accepted accounting principles have been set aside on its books and that have not given rise to any Adverse Claims (other than Adverse Claims permitted under the Receivables Purchase Agreement).

4.28 Name Change, Offices and Records. Seller shall not change its name, type of organization, organizational identification number or jurisdiction of incorporation (within the meaning of Section 9-102 of the UCC) or relocate any office where records with respect to the Receivables are kept unless it shall have: (i) given Credit (or its assigns) at least forty-five (45)

days' prior written notice thereof and (ii) delivered to Credit (or its assigns) all financing statements, instruments and other documents requested by Credit (or its assigns) in connection with such change or relocation.

## V. CONDITIONS PRECEDENT

5.1 Conditions Precedent to All Purchases. Each purchase of Outstanding Receivables hereunder shall be subject to, unless otherwise waived by Credit in the manner set forth in Section 9.1 hereof, the following further conditions precedent:

(a) On the appropriate Purchase Date (and Seller, by accepting the Purchase Price, shall be deemed to have certified that) the representations and warranties made by Seller contained in Section 3.1 hereof and in the Agency Agreement are correct on and as of such date, as though made on and as of such date;

(b) All Governmental Approvals with respect to this Agreement and the Agency Agreement required in connection with Seller's execution, delivery and performance hereof and thereof, each Sale and Assignment and the other documents to be delivered hereunder, and the transactions documents to be delivered hereunder, and the transactions contemplated hereby required in connection with Seller's execution, delivery and performance hereof or thereof, shall have been received and shall be in effect on the appropriate Purchase Date;

(c) Credit shall have received such other approvals, opinions or documents as Credit may reasonably request;

(d) Seller shall not be in breach of any covenant of this Agreement or the Agency Agreement;

(e) Seller shall not have (i) instituted or consented to the institution of any proceeding, or filed a petition, answer, consent or other pleading, in either case, seeking reorganization of Seller or any other relief or procedure with respect to Seller, under any applicable federal or state law relating to bankruptcy, insolvency, liquidation, dissolution or similar law, (ii) consented to the appointment of a receiver, liquidator, assignee, trustee, sequestrator (or other similar official) of Seller or a substantial part of its property, (iii) made any assignment for the benefit of creditors, (iv) admitted in writing its inability to pay its debts generally as they become due, or (v) taken any corporate action in furtherance of any of the foregoing actions, and no involuntary proceeding shall have been instituted against Seller or its properties for any such reorganization, relief, appointment, assignment or admission;

(f) Credit shall have available lines of credit and financing arrangements that are sufficient to support its obligation to purchase Outstanding Receivables hereunder;

(g) Credit shall have received a schedule of Seller's holidays for the current calendar year, and Seller shall have received a schedule of Credit's holidays for the current calendar year; and

(h) Credit shall have received a copy of the order of Seller's state public utility regulatory commission, as in effect on the appropriate Purchase Date, which set Seller's allowed ROCE.

(i) Credit shall have received Seller's initial Unbilled Receivable schedule in the form attached as Exhibit C.

## VI. ADMINISTRATION AND COLLECTION

6.1 Appointment of Seller for Administration and Collection. Until such time as Credit shall notify Seller of the revocation of such power and authority pursuant to the Agency Agreement, Credit appoints Seller as its agent, upon the terms and conditions set forth in the Agency Agreement, to collect all Receivables.

6.2 Appointment of Another Agent. To the extent Credit, pursuant to the Agency Agreement, may engage an Agent other than Seller to service, administer and collect the Receivables, such Agent shall have all of the rights granted to Credit or to Agent thereunder.

6.3 Responsibilities of Seller. Anything herein or in the Agency Agreement to the contrary notwithstanding:

(a) Seller shall remain responsible and liable to perform all of its duties and obligations under the obligations giving rise to the Receivables, to the extent set forth therein, to the same extent as if such Receivables had not been sold hereunder; provided, however, that upon written notice from Credit to Seller that Credit has appointed an Agent other than Seller, Seller shall not be responsible or liable for those duties and obligations specified by Credit in such notice as being assumed by the new Agent.

(b) Except as set forth in subsection (a) above, neither Credit nor any Agent has any obligation or liability with respect to any Receivables.

### 6.4 Further Action Evidencing Purchases.

(a) Seller agrees that from time to time, at its expense, it will promptly execute and deliver all further instruments and documents, and take all further action, that may be reasonably necessary or desirable or that Credit may reasonably request, in order to perfect, protect or more fully evidence the sales hereunder of Receivables and rights to Collections in respect thereof, or to enable Credit to exercise or enforce any of its rights hereunder. Without limiting the generality of the foregoing, Seller shall upon request of Credit (i) execute and file such financing or continuation statements, or amendments thereto, and such other instruments or notices, as may be necessary or appropriate for the

protection of Credit's rights hereunder; and (ii) to the extent not already done, mark its data processing records evidencing all of its Outstanding Receivables with a legend, acceptable to Credit, identifying those Receivables that have been sold in accordance with this Agreement.

(b) Seller hereby authorizes Credit to file one or more financing or continuation statements, and amendments thereto and further assignments thereof relative to all or any of the Receivables and rights in Collections in respect thereof now existing or hereafter arising without the signature of Seller where permitted by law. If Seller shall fail to execute or file any financing or continuation statement, amendment, instrument or notice in accordance with subsection (a) above, Credit may, and is hereby irrevocably appointed attorney-in-fact to execute or file the same on behalf of and in the name of Seller.

(c) If Seller fails to perform any of its agreements or obligations under this Agreement or the Agency Agreement, Credit or any Agent may (but shall not be required to) itself perform, or cause performance of such agreement or obligation, and the reasonable and necessary expenses of Credit incurred in connection therewith shall be payable by Seller upon demand by Credit.

#### 6.5 Depository Account Agreements; AEP Services Account Agreement; Lock-Boxes.

(a) The names and addresses of all Depository Account Banks, together with the account numbers of the Depository Accounts at such Depository Account Banks, are accurately set forth on Exhibit I-A. The name and address of the AEP Services Account Bank, together with the account number of the AEP Services Account are accurately set forth in Exhibit I-C. The addresses and post office box numbers of all Lock-Boxes are accurately set forth on Exhibit I-B. Seller will cause each Depository Account to at all times be subject to a Depository Account Agreement among Credit, itself, the applicable Depository Account Bank and the Administrative Agent. Seller will cause the AEP Services Account to at all times be subject to the AEP Services Account Agreement among Credit, itself, the other "Sellers" (as such term is defined in the Receivables Purchase Agreement), the AEP Services Account Bank and the Administrative Agent. Seller will cause each Lock-Box to at all times be subject to a P.O. Box Transfer Notice. Seller agrees that if any Collections are received by Seller in a bank account other than a Depository Account, the AEP Services Account or the AEP Utilities Account, such monies, instruments, cash and other proceeds will be immediately remitted to a Depository Account with any necessary endorsement and in any event within one (1) Business Day after identification thereof.

(b) Seller shall deposit all collections in respect of receivables that are not included in the Receivables in an account that is not the Collection Account or the Concentration Account. In the case of any remittances received in any Depository Account that shall have been identified, to the satisfaction of Seller, to not constitute Collections, other proceeds of the Receivables or other amounts owed to the Seller, Seller shall promptly remit such items to the Person identified to it as being the owner of such

remittances. Seller shall not permit any funds to be deposited into any Depository Account that do not constitute amounts owed to Seller.

(c) Seller shall (x) instruct all Customers to submit all Collections directly to a Sub-Agent, a Lock-Box, the AEP Utilities Account or a Depository Account to which only amounts owed to Seller are deposited, and (y) instruct all Sub-Agents to submit all Collections directly to a Depository Account to which only amounts owed to Seller are deposited. Seller shall not make any changes to any Depository Account Agreement or the AEP Services Account Agreement or establish any new Lock-Box, a new AEP Services Account or any new Depository Account, or change its instructions to Customers, Sub-Agents or other Persons regarding payments to be made to any Lock-Box or any Depository Account (except for a change in instructions solely for the purpose of directing such Customers, Sub-Agents or other Persons to make such payments to another existing Lock-Box or Depository Account to which only amounts owed to Seller are deposited), unless Credit (or its assigns) has received copies of (x) a duly executed P.O. Box Transfer Notice with respect to such new Lock-Box, (y) a Depository Account Agreement duly executed by Credit, Seller, the Administrative Agent and such new Depository Bank with respect to such new Depository Account, as applicable or (z) a new AEP Services Account Agreement duly executed by Credit, Seller, the other "Sellers" as such term is defined in the Receivables Purchase Agreement, the new AEP Services Account Bank and the Administrative Agent.

(d) Within ten (10) Business Days following the request of Credit after (i) the occurrence and continuation of an Amortization Event or Seller Amortization Event with respect to Seller (as each such term is defined in the Receivables Purchase Agreement) or (ii) the commencement of any Level Two Enhancement Period (as defined in the Receivables Purchase Agreement) with respect to Seller, Seller shall cause each Depository Account to be retitled in the name of "AEP Credit, Inc."

## VII. TERMINATION

7.1 Termination. Either party to this Agreement may terminate this Agreement, together with the Agency Agreement, at any time upon not less than 30-days' written notice to the other party; provided, however that Credit shall have the right to immediately terminate this Agreement by written notice to Seller upon the occurrence of an Event of Bankruptcy. From and after the Termination Date, Credit shall have no further obligation to purchase receivables hereunder, provided that, commencing on the date 30 days prior to the Termination Date, Credit shall no longer be obligated to purchase Unbilled Receivables hereunder. Except as contemplated in the immediately preceding sentence and in Section 7.2 hereof, termination of this Agreement or the Agency Agreement by either party shall not affect Receivables and rights in the Collections in respect thereof, or the rights and obligations of Credit or Seller with respect thereto, sold to Credit pursuant to this Agreement prior to the date of such termination, and no such termination shall affect either party's obligations to the other under Section 7.2, Article VIII, Section 9.5 and Section 9.6 hereof.

7.2 Termination Procedures. Not less than 30 days prior to the Termination Date (or, in the case of termination by Credit, on the Termination Date), Seller agrees to have accounting procedures that distinguish Receivables and Collections in respect thereof owned by Credit from other receivables and collections, and to maintain such procedures so long as any such Receivables are outstanding. Unless Credit has exercised its rights to appoint an Agent other than Seller under the Agency Agreement, following the Termination Date Seller agrees to collect all Receivables, receive all Collections in respect thereof and otherwise comply with Section 5.1 of the Agency Agreement.

## VIII. INDEMNIFICATION

### 8.1 Indemnities by Seller.

(a) Without prejudice to any other rights which Credit may have hereunder or under applicable law, Seller hereby agrees to indemnify and save harmless Credit from and against any and all damages, losses, claims, liabilities, costs and expenses (including reasonable attorneys fees and disbursements) arising out of or resulting from the breach of any representation or covenant of Seller under this Agreement or the Agency Agreement.

(b) Notwithstanding any other provision of this Agreement or the Agency Agreement, and in furtherance and not in limitation of the foregoing, Seller agrees to pay Credit upon demand any and all amounts necessary to indemnify it and save it harmless from and against any and all damages, losses, claims, liabilities or expenses (including reasonable attorneys' fees and disbursements) awarded against or incurred by it arising out or as a result of:

- (i) Credit's reliance on any representation or warranty made by or on behalf of Seller under or in connection with this Agreement or the Agency Agreement, in any report from Seller or in any other information delivered by Seller pursuant hereto or thereto, which shall have been false or incorrect when made or deemed made;
- (ii) the failure by Seller to comply with any applicable law, rule or regulation with respect to any of the Receivables, or the nonconformity of any of the Receivables with any such applicable law, rule or regulation;
- (iii) the failure of Seller to perform its duties, covenants or other obligations in accordance with the provisions of this Agreement or the Agency Agreement;
- (iv) any dispute, claim, offset or defense (other than a discharge in bankruptcy of the Customer) of the Customer to the payment of any Receivable (including, without limitation, a defense based on

such Receivable not being a legal, valid and binding obligation of such Customer enforceable against it in accordance with its terms);

- (v) the failure to vest in Credit ownership of the Receivables free and clear of any Adverse Claim;
- (vi) the failure to file, or any delay in filing, financing statements, continuation statements or other similar instruments or documents under the UCC of any applicable jurisdiction or other applicable laws with respect to any Receivables, whether at the time of any purchase of any Receivable or at any subsequent time;
- (vii) any Adverse Claim relating to any Receivable (including, without limitation, the Adverse Claims described in Section 3.1.4 hereof);
- (viii) the commingling of Collections at any time with any other funds;
- (ix) any failure by Seller timely to deliver to Credit or the successor Agent the Collections, books, records, documents or other information which may be required to be delivered pursuant to Section 3.5 of the Agency Agreement;
- (x) any failure by Seller to comply with Section 2.3 hereof when determining the Face Amount of an Outstanding Receivable;
- (xi) any failure by Seller to be duly qualified to do business, and to be in good standing, in every jurisdiction where such qualification was required hereunder or under the Agency Agreement for the enforcement of any Receivable against the applicable Customer;
- (xii) any investigation, litigation or proceeding related to or arising from this Agreement or the Agency Agreement, the transactions contemplated hereby or thereby, the use of the proceeds of any purchase hereunder, the ownership of the Receivables or the Collections or any other investigation, litigation or proceeding relating to the Seller in which Credit becomes involved due to the transactions contemplated hereby or thereby;
- (xiii) any products liability or similar claim arising out of or in connection with merchandise, insurance or services that are the subject of the contract related to any Receivable;
- (xiv) any inability to litigate any claim against any Customer in respect of any Receivable as a result of such Customer being immune from civil and commercial law and suit on the grounds of sovereignty or otherwise from any legal action, suit or proceeding;

- (xv) any action or omission by Seller which reduces or impairs the rights of Credit with respect to any Receivable or the value of any such Receivable; or
- (xvi) any attempt by any Person to void any purchase hereunder under statutory provisions or common law or equitable action.

(c) If Credit or any other Person shall act as Agent pursuant to Section 6.2 hereof and the Agency Agreement, Credit agrees to pay Seller upon demand any and all amounts necessary to indemnify it and save it harmless from and against any and all damages, losses, claims, liabilities or expenses (including reasonable attorneys fees and disbursements) awarded against or incurred by it arising out of or as a result of Credit or such other Person acting as Agent, including but not limited to the following:

- (i) Seller's reliance on any representation made by or on behalf of Credit or such other Person, as Agent, in any report from Credit or such other Person, as Agent, or in any other information delivered by Credit or such other Person, as Agent, pursuant hereto, which shall have been false or incorrect in any material respect when made or deemed made;
- (ii) the failure by Credit or such other Person, as Agent, to comply with any applicable law, rule or regulation with respect to any of the receivables, or the nonconformity of any of the Receivables with any such applicable law, rule or regulation as a result of any action or inaction of Credit or such other Person, as Agent;
- (iii) any failure by Credit, as Agent, to timely deliver to any successor Agent the books, records, documents or other information which may be required to be delivered pursuant to Section 3.5 of the Agency Agreement; or
- (iv) any failure by Credit or such other Person, as Agent, to be duly qualified to do business, and to be in good standing, in every jurisdiction where such qualification was required for the enforcement of any Receivable against the applicable Customer.

(d) Seller shall not be liable for any loss suffered by Credit that is due solely to the financial inability or bad faith failure of any Customer to pay at maturity any amounts due and payable in respect of a Receivable.

**8.2 Potential Liabilities.** Each party hereto will use its best efforts to identify situations involving possible liability or obligations under this Article VIII (other than Section 8.1(b) hereof) and to determine the amount of any such liability or obligations, and, upon having notice of such situations, it will promptly advise the other party thereof.



8.3 Cooperation in Litigation. Each party hereto agrees to reasonably assist, at the request of the other party, in any action, suit or proceeding brought by or against either party by a third party relating to any of the transactions contemplated by this Agreement and the Agency Agreement, or to the collection of any Outstanding Receivables; provided that, Seller shall reimburse Credit for reasonable expenses (including attorney's fees) if any, incurred by Credit in connection with rendering such assistance. If (a) Seller shall have acknowledged that it is liable for any judgment or expenses in any action, suit or proceeding pursuant to Section 8.1 hereof, and (b) in the sole discretion of Credit, Seller has the financial ability to satisfy such judgment or expenses, then Seller shall have the right, on behalf of Credit, but at Seller's expense, to defend such action, suit or proceeding with counsel selected by it and reasonably acceptable to Credit; provided, however, that no such action shall be settled or compromised without the prior consent of Credit, which consent will not be unreasonably withheld.

## IX MISCELLANEOUS

### 9.1 Amendments, Waivers, Consents, Acknowledgements Etc.

9.1.1 Amendments, Waivers. No amendment or waiver of any provision of this Agreement or the Agency Agreement, nor consent to any departure by either party herefrom or therefrom, shall in any event be effective unless the same be in writing and signed by the other party hereto, then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which it is given. Notwithstanding the foregoing, so long as any Receivables are the subject of the Receivables Purchase Agreement, no amendment or waiver of any of the provisions of this Agreement nor any consent to any departure by Seller herefrom shall be effective without the prior written consent of the Majority Purchasers (as such term is defined in the Receivables Purchase Agreement).

9.1.2 Acknowledgement of Security Interest. Seller (a) acknowledges that the Receivables Purchase Agreement is effective to create in favor of the Administrative Agent for the benefit of the Conduit Purchasers and the Committed Purchasers a security interest in the Receivables and the Collections with respect thereto transferred pursuant to this Agreement, and (b) acknowledges and consents to Credit's assignment to the Administrative Agent for the benefit of the Conduit Purchasers and the Committed Purchasers of all of its right, title and interest in and to this Agreement and the Agency Agreement to the Administrative Agent for the benefit of the Conduit Purchasers and the Committed Purchasers, and agrees that such Persons shall thereupon acquire and succeed to the rights of Credit under this Agreement and the Agency Agreement and shall be permitted to exercise all rights and remedies of Credit hereunder and thereunder (including, without limitation, (i) the right of Credit, at any time, to enforce this Agreement and the Agency Agreement against Seller and Agent, and (ii) the right, at any time, to give or withhold consents, requests, notices, directions, approvals, demands, extensions, waivers under or with respect to this Agreement or the Agency Agreement or the obligations of Seller and Agent hereunder and thereunder to the same extent as Credit may do); provided, however, that Credit shall nonetheless be permitted to give all consents, requests, notices, directions, approvals, extensions or waivers, if any, which are required or permitted to be given in the

normal course of business by the specific terms of this Agreement and the Agency Agreement, to the extent permitted under the Receivables Purchase Agreement.

9.1.3 Consent to Disclosure. Seller consents to the disclosure of any nonpublic information with respect to it by Credit, the Servicer, the Conduit Purchasers, the Committed Purchasers, the Funding Agents and the Administrative Agent (i) to each other, (ii) to any prospective or actual assignee or participant of any of them, (iii) to any rating agency, commercial paper dealer or provider of a surety, guaranty or credit or liquidity enhancement to any of the Conduit Purchasers, (iv) to any officers, directors, employees, outside accountants and attorneys of any of the foregoing, and (v) to any Person pursuant to any law, rule, regulation, direction, request or order of any judicial, administrative or regulatory authority or proceedings (whether or not having the force or effect of law). Anything herein to the contrary notwithstanding, each of Credit and Seller and any successor or assign of any of the foregoing (and each employee, representative or other agent of any of the foregoing) may disclose to any and all Persons, without limitation of any kind, the "tax treatment" and "tax structure" (in each case, within the meaning of Treasury Regulation Section 1.6011-4) of the transactions contemplated herein and all materials of any kind (including opinions or other tax analyses) that are or have been provided to any of the foregoing relating to such tax treatment or tax structure, and it is hereby confirmed that each of the foregoing have been so authorized since the commencement of discussions regarding the transactions.

9.1.4 AEP Credit. Seller acknowledges that the parties to the Receivables Purchase Agreement are entering into the transactions contemplated by the Receivables Purchase Agreement in reliance upon Credit's identity as a legal entity that is separate from Seller and any affiliates thereof, and covenants and agrees that it will take all reasonable steps including, without limitation, all steps that Credit, the Administrative Agent or any Funding Agent may from time to time reasonably request to maintain Credit's identity as a separate legal entity and to make it manifest to third parties that Credit is an entity with assets and liabilities distinct from those of Seller and any affiliates thereof and not just a division of Seller. Without limiting the generality of the foregoing and in addition to the other covenants set forth herein, Seller covenants and agrees that it (i) will not hold itself out to third parties as liable for the debts of Credit nor purport to own the Receivables and other assets acquired by Credit pursuant to this Agreement, (ii) will take all other actions necessary on its part to ensure that Credit is at all times in compliance with the covenants set forth in Section 6.6 of the Receivables Purchase Agreement, and (iii) will cause all tax liabilities arising in connection with the transactions contemplated in this Agreement and the Agency Agreement or otherwise to be allocated between Seller and Credit on an arm's-length basis and in a manner consistent with the procedures set forth in U.S. Treasury Regulations §§1.1502-33(d) and 1.1552-1.

9.2 Notices, Etc. All notices and other communications required or permitted hereunder shall, unless otherwise stated herein, be in writing and mailed or delivered, as to each party hereto, at such party's address specified below:

(a) If to Credit:

By courier or telecopy:  
AEP Credit, Inc.  
Treasury Department  
1616 Woodall Rodgers Freeway  
Dallas, Texas 75202  
Fax: (214) 777-1223

By Mail:  
AEP Credit, Inc.  
Treasury Department  
P. O. Box 660164  
Dallas, Texas 75266-0164

(b) If to Seller:

Notice Address  
Kentucky Power Company  
Finance Department  
1 Riverside Plaza  
Columbus, OH 43215

Location of Books & Records  
Kentucky Power Company  
301 Cleveland Avenue, S.W.  
Canton, OH 44702

Fax: (614) 716-2807

or at such other address as shall be designated by such party in a written notice to the other party hereto. All such notices and communications shall be deemed to have been duly given when delivered to the addressees at the appropriate addresses specified above.

9.3 No Waiver; Remedies. No failure on the part of either party hereto to exercise, and no delay in exercising, any right hereunder or under the Agency Agreement shall operate as a waiver thereof; nor shall any single or partial exercise of any right hereunder or under the Agency Agreement preclude any other or further exercise thereof or the exercise of any other right. The remedies provided herein or in the Agency Agreement are cumulative and not exclusive of any remedies provided by law.

9.4 Binding Effect. This Agreement shall be binding upon and inure to the benefit of Credit and Seller, and their respective successors and assigns, except that the Seller may not assign its rights or obligations hereunder without the prior written consent of Credit. Credit may assign its rights or obligations hereunder in connection with any financing transaction relating to the Receivables without the consent of Seller.

9.5 Costs, Expenses and Taxes. In addition to the rights of indemnification granted to Credit under Article VIII hereof, Seller agrees to pay on demand all reasonable costs and expenses, if any (including reasonable attorneys fees and expenses), in connection with the negotiation, review, preparation, amendment, enforcement and release of this Agreement, the Agency Agreement, and the other documents and instruments to be delivered by it hereunder and thereunder. In addition, Seller agrees to pay any and all stamp and other taxes (other than income taxes) and fees payable or determined to be payable in connection with the execution, delivery, filing and recording of this Agreement, the Agency Agreement, or such other documents and instruments to be delivered by it hereunder or under the Agency Agreement, and

the assignment of Receivables hereunder, and agrees to save Credit harmless from and against any and all liabilities with respect to or resulting from any delay in paying or omission to pay such taxes and fees.

9.6 Operating Expense Payment. In addition to the costs, expenses and taxes specified in Section 9.5 hereof, Seller shall pay Credit for incidental operating expenses associated with the general operations of Credit and permitted to be included in the discount factor of Receivables purchased hereunder pursuant to the SEC Order (as defined below), including, without limitation, consolidated tax savings, line of credit fees, franchise taxes and other expenses of like character, but excluding, in any event, charges or expenses representing charge offs or carrying costs with respect to Receivables purchased hereunder. The amount of such operating expenses for any month shall be calculated by Credit, and communicated to Seller, no later than the twentieth working day of the following month along with appropriate supporting documentation, with the amount thereof paid either in cash or netted against the Purchase Price on the following fifth business day of the calendar month. The "*SEC Order*" shall mean the order of the Securities and Exchange Commission dated March 11, 1997 (Release No. 35-26684), as the same may be supplemented, amended or modified.

9.7 Execution in Counterparts. This Agreement may be executed in any number of counterparts and by the parties hereto in separate counterparts, each of which when so executed shall be deemed to be an original and all of which taken together shall constitute one and the same agreement.

9.8 Separability Clause. Any provisions of this Agreement which are prohibited or unenforceable in any jurisdiction shall, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof, and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provisions in any other jurisdiction.

9.9 No Petition: Set-Off. Seller hereby irrevocably and unconditionally waives all right of set-off that it may have under contract (including this Agreement), applicable law or otherwise with respect to any property, funds or monies of Credit at any time held by or in the possession of Seller.

**9.10 CONTROLLING LAW; WAIVER OF JURY TRIAL. THIS AGREEMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK. EACH OF SELLER AND CREDIT HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATED TO THIS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY.**

IN WITNESS WHEREOF, the parties have caused this Agreement to be executed by their respective officers hereto duly authorized, as of the date first above written.

AEP CREDIT, INC.

By: Wendy G. Hargus  
Name: Wendy G. Hargus  
Title: Assistant Treasurer

KENTUCKY POWER COMPANY

By: Susan Tomasky  
Name: Susan Tomasky  
Title: Vice President

AMENDMENT NO. 2  
TO  
THIRD AMENDED AND RESTATED PURCHASE AGREEMENT

THIS AMENDMENT No. 2 ("this Amendment") is made as of the 30<sup>th</sup> day of January 2008, by and between AEP CREDIT, INC., a Delaware corporation ("Credit") and KENTUCKY POWER COMPANY, a Kentucky corporation ("Seller").

WITNESSETH:

WHEREAS, Credit and Seller are parties to the Third Amended and Restated Purchase Agreement dated as of August 25, 2004, as amended by that certain Amendment No. 1 to the Third Amended and Restated Purchase Agreement dated as of March 22, 2006 (as amended, modified or supplemented from time to time, "the Purchase Agreement");

WHEREAS, pursuant to Section 9.1.1 of the Purchase Agreement, Credit and Seller desire to amend the Purchase Agreement upon the terms set forth below;

WHEREAS, the Majority Purchasers (as such term is defined in the Second Amended and Restated Receivables Purchase Agreement dated as of August 25, 2004, as amended, among Credit, American Electric Power Service Corporation, the Administrative Agent, and certain other purchasers, including the Majority Purchasers) have consented to this Amendment No. 2;

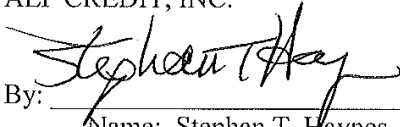
WHEREAS, Credit and Seller desire to amend the Purchase Agreement to eliminate certain provisions upon the terms set forth below; and

NOW therefore, the parties agree as follows:

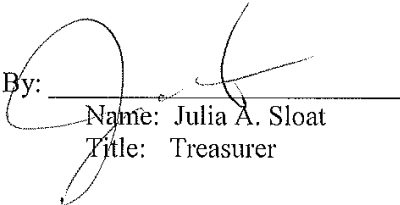
1. Section 2 of the Purchase Agreement is hereby amended to delete Paragraph 2.6 relating to the Carrying Cost Variance Payment and the related Exhibit F to the Purchase Agreement in their entirety.
2. Paragraph 2.8 which relates to Purchase Price Credit Adjustments of Section 2 of the Purchase Agreement is hereby amended to eliminate subparagraph 2.8 (c) and any reference to said subparagraph 2.8(c) in Paragraph 2.8.
3. This Amendment No. 2 shall be effective as of January ~~30~~ 2008.
4. The Purchase Agreement (except as specifically amended herein) shall remain in full force and effect and said Purchase Agreement is hereby ratified and confirmed in all respects by each of the parties hereto.
5. **CONTROLLING LAW. THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.**

IN WITNESS WHEREOF, the parties hereto have caused this Amendment No. 2 to be executed as of the date first written above.

AEP CREDIT, INC.

By:   
Name: Stephan T. Haynes  
Title: Assistant Treasurer

KENTUCKY POWER COMPANY

By:   
Name: Julia A. Sloat  
Title: Treasurer

**EXECUTION COPY**

AMENDMENT NO. 3  
TO  
THIRD AMENDED AND RESTATED PURCHASE AGREEMENT

Dated as of June 24, 2015

THIS AMENDMENT NO. 3 (this "Amendment") is entered into as of June 24, 2015 by and among AEP CREDIT, INC., a Delaware corporation ("Credit") and KENTUCKY POWER COMPANY, a Kentucky corporation ("Seller").

PRELIMINARY STATEMENT

A. The parties hereto are parties to that certain Third Amended and Restated Purchase Agreement dated as of August 25, 2004 (as amended prior to the date hereof and as further amended, restated, supplemented or otherwise modified from time to time, the "Purchase Agreement"). Capitalized terms used herein and not otherwise defined shall have the meanings ascribed to them in the Purchase Agreement.

B. The parties hereto have agreed to amend the Purchase Agreement subject to the terms and conditions hereinafter set forth and the Majority Purchasers have consented to this Amendment.

NOW, THEREFORE, in consideration of the premises set forth above, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

SECTION 1. Amendments to the Purchase Agreement. Effective as of the date hereof, subject to the satisfaction of the conditions precedent set forth in Section 2 below, the Purchase Agreement is hereby amended as follows:

(a) The third paragraph of Section 2.2 of the Purchase Agreement is hereby amended and restated in its entirety as follows (with text marked in **bold underline** indicating additions thereto and with text marked in **~~bold strikethrough~~** indicating deletions thereto):

“Although the Purchase Price for each Receivable sold hereunder shall be due and payable in full by Credit to Seller on the date such Receivable is purchased, a precise reconciliation of the Purchase Price between Credit and Seller shall be effected no less frequently than **weekly monthly** on each Business Day selected by Credit (each such date, a “Reconciliation Date”) with respect to all Receivables sold since the last Reconciliation Date. On each Reconciliation Date, Seller shall determine the net amount due to or from Credit with respect to all Receivables sold since the last Reconciliation Date and either Credit or Seller, as applicable, shall wire transfer such amount in immediately available funds to the account specified by Seller, in the case of amounts owed to Seller, or to the



Concentration Account, in the case of amounts owed to Credit, in the manner contemplated by Section 2.7 thereof.”

(b) Exhibit I-A (Depository Accounts) to the Purchase Agreement is hereby deleted and replaced in its entirety by Exhibit I-A (Depository Accounts) attached hereto.

SECTION 2. Conditions Precedent. This Amendment shall become effective and be deemed effective as of the date first above written upon the Administrative Agent’s having received counterparts of this Amendment duly executed by the parties hereby.

SECTION 3. Covenants, Representations and Warranties of Credit and the Seller.

(a) Upon the effectiveness of this Amendment, each of Credit and the Seller hereby reaffirms all covenants, representations and warranties made by it, to the extent the same are not amended hereby, in the Purchase Agreement and agrees that all such covenants, representations and warranties shall be deemed to have been re-made as of the effective date of this Amendment.

(b) Each of Credit and the Seller hereby represents and warrants (i) that this Amendment constitutes the legal, valid and binding obligation of such Person enforceable against such Person in accordance with its terms, except as enforceability may be limited by bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforcement of creditors’ rights generally and general principles of equity which may limit the availability of equitable remedies and (ii) upon the effectiveness of this Amendment, no event shall have occurred and be continuing which constitutes a Seller Amortization Event with respect to Seller or an event that with the passage of time or the giving of notice, or both, would constitute an Seller Amortization Event with respect to Seller.

SECTION 4. Reference to and Effect on the Purchase Agreement.

(a) Upon the effectiveness of this Amendment, each reference in the Purchase Agreement to “this Agreement,” “hereunder,” “hereof,” “herein,” “hereby” or words of like import shall mean and be a reference to the Purchase Agreement as amended hereby, and each reference to the Purchase Agreement in any other document, instrument or agreement executed and/or delivered in connection with the Purchase Agreement shall mean and be a reference to the Purchase Agreement as amended hereby.

(b) Except as specifically amended hereby, the Purchase Agreement and other documents, instruments and agreements executed and/or delivered in connection therewith shall remain in full force and effect and are hereby ratified and confirmed.

(c) The execution, delivery and effectiveness of this Amendment shall not operate as a waiver of any right, power or remedy under the Purchase Agreement or any of the other Transaction Documents, nor constitute a waiver of any provision contained therein, except as specifically set forth herein.

SECTION 5. GOVERNING LAW. THIS AMENDMENT SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.


SECTION 6. Execution in Counterparts. This Amendment may be executed in any number of counterparts and by different parties hereto in separate counterparts, each of which when so executed and delivered shall be deemed to be an original and all of which taken together shall constitute but one and the same instrument.

SECTION 7. Headings. Section headings in this Amendment are included herein for convenience or reference only and shall not constitute a part of this Amendment for any other purpose.

\* \* \* \* \*

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be executed by their respective officers thereto duly authorized as of the date first written above.

AEP CREDIT, INC.

By:   
Name: Renee V. Hawkins  
Title: Assistant Treasurer

KENTUCKY POWER COMPANY, as Seller

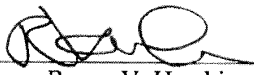
By:   
Name: Renee V. Hawkins  
Title: Assistant Treasurer

EXHIBIT I-A

DEPOSITARY ACCOUNTS

<b>Company</b>	<b>Bank</b>	<b>Account Number</b>	<b>ABA</b>
Kentucky Power Company	JPMorgan Chase Bank, N.A.	633550983	044 000 037
Kentucky Power Company	Huntington Bank	01891693489	044 000 024
AEP Utilities, Inc.	Huntington Bank	01891740044	044 000 024

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

- KIUC 2\_2** Refer to the response to KIUC 1-7 wherein the Applicants assert that they “have not performed any analysis responsive to the request” and state that “[a] the Joint Applicants do not intend to seek recovery of the transaction costs from Kentucky customers, the cost of the acquisition will have no customer impact.
- a. Confirm that Brian West, who responded to this request, is an employee of Kentucky Power Company, not Liberty. Confirm further that Mr. West does not speak for Liberty and cannot make any commitments on behalf of Liberty at this time.
  - b. Confirm that Liberty will incur transition and/or integration costs, such as standing up one or more new control centers for distribution and transmission dispatch and operation, acquiring and implementing IT systems, officers and directors tail insurance, among others.
  - c. Confirm that Liberty agrees that it will not seek recovery of such transition and/or integration costs. If denied, then confirm that the acquisition will have a customer rate impact and provide an analysis of the customer rate impact. Provide all assumptions, data, source documents and materials, and all calculations in live Excel format with all formulas intact.

**RESPONSE**

- a. Brian K. West is an employee of Kentucky Power Company. Mr. West does not speak for Liberty and cannot make any commitments on behalf of Liberty at this time. Mr. West was identified as a witness on the referenced response to support the factual statement that Kentucky Power has not performed any analysis responsive to the initial request. While the requested statement is confirmed, the original response to the DR in question transmitted to the Commission had three witnesses listed, including Messrs. West, Haynes, and Eichler. Mr. Eichler was annotated as Liberty’s witness.
- b. Confirmed in general without confirming specific examples noted.
- c. Not confirmed. Please refer to the transition cost taxonomy Liberty established in the response to AG-DR-1-55 for the purposes of this proceeding. Liberty expects that the cost of these investments will be absorbed in the existing rate funding associated with the AEP assets that will be removed from the rate base, and in any case be equal in total cost

to the otherwise planned IT capital expenditures over the next three year period. For an initial estimate, please see the response to AG 2-12(b).

Witness: Brian K. West

Witness: Peter Eichler

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

- KIUC 2\_3** Refer to the response to KIUC 1-8 wherein the Applicants state that they did not perform a comparative rate analysis.
- a. Indicate whether Liberty performed a rate forecast using a financial model or other methodology. If so, then describe the rate forecast and the basis for the forecast and provide a copy of all such analyses in live Excel format with all formulas intact, along with all assumptions, data and source documents and all other materials relied on for this purpose.
  - b. Confirm that to the extent Liberty incurs transition and/or integration costs in 2023, then these costs will reduce the Company's per book return on equity and reduce the fixed costs savings from the termination of the Rockport UPA that otherwise will flow through the PPA rider and inure to the Company's customers in 2023.
  - c. Indicate if Liberty is willing to forego the recovery of the transition and/or integration costs through the PPA rider rates in 2023. If not, provide all reasons why not.
  - d. Refer to the Commission's Order in Case 2020-00174 wherein it states:

Therefore, the Commission finds that Kentucky Power's request to amortize the Rockport regulatory asset over five years beginning in 2022 for recovery through Tariff PPA is premature at this time, and the Commission will defer the determination of the appropriate amortization period and recovery mechanism to a subsequent matter the Commission will initiate on its own motion. As part of this subsequent matter, the Commission will also review and clarify items related to provisions of the final Order in Case No. 2017-00179 regarding Kentucky Power's ability to use the savings from the expiration of the Rockport UPA to earn its Commission-approved ROE in calendar year 2023.

    - i. Confirm that Liberty is aware of the Commission's plan to "review and clarify items related to . . . Kentucky Power's ability to use the savings from the expiration of the Rockport UPA to earn its Commission-approved ROE in calendar year 2023."
    - ii. Confirm that Liberty is aware that if it does not agree to forego the recovery of the transition and/or integration

costs, that this may be an area the Commission may “review and clarify” in a subsequent matter if it does not do so in this proceeding.

**RESPONSE**

- a. Liberty has not performed a rate forecast; however, an indicative rate analysis is available in Attachment Staff 1-68, page 54.
- b. Partially not confirmed. Please refer to Liberty’s Response to AG-1-55 for a discussion of transaction and transition cost components for which Liberty will not seek recovery.
- c. Liberty will not be recovering any One-Time Transition Costs from customers, while the Long-Lived Transition costs are capital in nature and will not affect the 2023 earned ROE calculation given their nature and anticipated in-service timing.
- d.
  - (i) Confirmed
  - (ii) Confirmed

Witness: Peter Eichler



American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

- KIUC 2\_4** Refer to the Company's response to KIUC 1-16.
- a. Confirm that Liberty is aware that the Company historically has incurred tax losses and that AEP has compensated the Company for the tax effect of the tax losses through the AEP Tax Agreement for the asset NOL ADIT that otherwise would be recorded on the Company's accounting books.
  - b. Confirm that the Company will not be compensated in the same manner or in any manner by Liberty for the tax effects of the Company's tax net operating losses that are carried forward.
  - c. Confirm that if the Liberty acquisition closes, the Company will record asset NOL ADIT amounts if it incurs tax net operating losses that are carried forward. If this is correct, then confirm that this will result in an increase in the Company's future revenue requirements if the NOL ADIT is included in rate base. If denied, then explain why this is not correct.
  - d. Indicate whether Liberty is willing to hold harmless the Company's customers from the increase in the revenue requirement if there is an NOL ADIT. If not, explain why it is not willing to do so.

**RESPONSE**

- a. Liberty is aware that Kentucky Power was part of AEP's Tax Agreement.
- b. Liberty cannot confirm that Kentucky Power will not be compensated in the same manner or in any manner by Liberty for the tax effect of Kentucky Power's tax net operating losses that are carried forward.
- c. Liberty intends to record Kentucky Power's tax results on a stand-alone basis. Kentucky Power will record asset NOL ADIT amounts if it incurs tax net operating losses that are carried forward. On a stand-alone basis Kentucky Power would record NOL and include it in rate base as required by the Internal Revenue Code of 1986, as amended ("IRS rules"). This increase is offset by a decrease in working capital in rate base and should result in no overall change.
- d. Liberty follows all relevant IRS rules including normalization requirements. If a utility is in a NOL position it was usually caused by accelerated depreciation. Therefore, the

NOL ADIT is offset by the Deferred Tax Liability created by the accelerated depreciation and both are required to be included in rate base.

Witness: Michael McCuen

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**DATA REQUEST**

- KIUC 2\_5** Refer to the Company's response to KIUC 1-18.
- a. Confirm that the Company's sale of its receivables to AEP Credit, Inc. was the equivalent of financing with low-cost short-term debt on a recurring basis and that this provided savings to customers.
  - b. Confirm that the Company is in the process of terminating this agreement.
  - c. Confirm that Liberty does not plan to sell the Company's receivables if it acquires the Company.
  - d. Indicate whether Liberty is willing to hold harmless the Company's customers from the increase in the revenue requirement from the termination of this agreement or the failure to enter into a substantially similar agreement with another entity. If not, then provide all reasons why not. If so, describe how it would structure such a hold harmless, e.g., using short term debt to finance the receivables, and describe how it would ensure that the use of this form of financing would not impinge on or reduce short term debt that otherwise would be used on a recurring basis for other purposes.

**RESPONSE**

- a. Confirmed.
- b. Confirmed.
- c. Confirmed
- d. Liberty believes that its short-term borrowing rate is currently lower than that currently charged for factoring receivables. A hold harmless is not practical, as in the future Kentucky Power will not be able to compare what rates would have been under a factoring arrangement; that said, see response to AG 2-21 wherein Liberty agrees to continue to evaluate whether factoring would have benefits to customers in the future should short term borrowing rates materially increase.

Witness: Stephan T. Haynes

Witness: Michael Mosindy

American Electric Power Company, Inc.  
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**DATA REQUEST**

- KIUC 2\_6** Refer to the responses to KIUC 1-22 and 1-23, which sought copies of the Bridge Power Coordination Agreement (“Bridge PCA”) and the New Power Sale Agreement, respectively, and related information. The Joint Applicants responded that they “have not yet executed” the Agreements.
- a. Provide the most recent drafts of these Agreements.
  - b. Explain how the Commission can find the Liberty acquisition of the Company in the public interest if it does not have these two agreements, cannot review the terms and conditions, or make any assessment of the costs or benefits of these agreements.

**RESPONSE**

- a. The Joint Applicants object to this request on the basis that the information sought is protected from disclosure by the attorney-client privilege, the work-product doctrine, and the Joint Applicants' Common Interest Agreement. Notwithstanding the objection, the Joint Applicants state there are no non-privileged documents responsive to this request.
- b. Both the Bridge PCA and the New Power Sale Agreement are FERC-jurisdictional agreements that will be submitted to FERC for review and approval, as indicated in Joint Applicants' responses to KIUC 1-22 and 1-23. The KPSC will have the opportunity, if it chooses, to participate in the FERC proceedings seeking approval of both agreements, and it will have the ability to review the reasonableness of costs assessed to Kentucky Power under the agreements through its annual review of Kentucky Power's Purchase Power Adjustment clause update filings.

The material terms of the Bridge PCA and the new power sale agreement are set forth in Section 4.8(b) (Intercompany Arrangements – Power Coordination) of Seller’s Disclosure Letter to the Stock Purchase Agreement. As described therein, those terms essentially preserve the current structure of the existing PCA and extend those terms to the period that Kentucky Power is transitioning away from joint ownership by AEP and to Liberty on a stand-alone basis. The core of those obligations is the continuation of the FRR Plan that supports Kentucky Power’s PJM capacity obligations during an interim period based on commitments made by Kentucky Power prior to the closing. The New Power Sales Agreement supports those commitments to the extent that Kentucky Power would otherwise lack capacity to satisfy its obligations, and, as noted in the Disclosure Letter and in Company’s prior response to KIUC 1-23, the price for that capacity is the

benchmark BRA clearing price, not the embedded capacity cost of the other AEP Operating Companies.

Witness: Amanda Conner

Respondent: Counsel

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**DATA REQUEST**

**KIUC 2\_7** Refer to the response to KIUC 1-35. Provide a description of the AEP Kentucky Transmission Company's costs that are charged to the Company and how the Company recovers these expenses from its customers.

**RESPONSE**

AEP Kentucky Transmission Company ("Kentucky Transco") does not directly charge Kentucky Power ("Kentucky Power"); rather, Kentucky Power pays for transmission service under the PJM OATT, which is composed of PJM transmission owner revenue requirements, including Kentucky Transco as a PJM transmission owner. Kentucky Power then recovers its transmission service PJM OATT costs from retail customers through base rates and Tariff P.P.A. (Purchase Power Adjustment).

Witness: Brian K. West

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**DATA REQUEST**

**KIUC 2\_8** Refer to the response to KIUC 1-40. Provide the Company's operating and capital budgets and financial model forecasts for 2022 through 2031 at the FERC account level or most detailed level available.

**RESPONSE**

Please see confidential attachment "JA\_R\_KIUC\_2\_8\_Confidential Attachment.xlsx" reflecting a working 2022-2030 schedule of expenses revenues and capital expenditures prepared by AEP at the time of the transaction due diligence, that Liberty will use as a budgetary starting point until its own budgets and forecasts are developed. The attached projections are subject to change and are "at a point in time" projections. Any future plans will be subject to the requisite approvals required.

Witness: Peter Eichler

Witness: Brian K. West

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**DATA REQUEST**

**KIUC 2\_9** Refer to the response to KIUC 1-42 and Liberty's plan to increase the common equity level to 45% and "remain at that level." Define the period of time that Liberty plans to leave the equity level at 45%. Indicate whether the Company is agreeable to a commitment to that effect. If not, explain why it is not.

**RESPONSE**

Liberty has not assumed a change to that level, so while a specific time frame for leaving equity at the 45% has not been determined, neither has Liberty contemplated any change to that in the future. In terms of commitments, Liberty is willing to agree to reasonable regulatory commitments, including those identified in response to Staff 1-02. However, the reasonableness of any commitment is highly fact specific and may be impacted by other factors, including obligations and the testimony of the parties in this case. Accordingly, additional commitments are best considered in totality, such as in discussions of a global settlement or through a final order of the Commission. Liberty believes that it would be premature to make commitments in addition to those set forth in Staff 1-02 at this time.

Witness: Peter Eichler



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**DATA REQUEST**

**KIUC 2\_10** Refer to the response to KIUC 1-48(b). Neither the Company nor Liberty provided the information requested. Provide the requested information.

**RESPONSE**

Please see the attachment to the response to KIUC 2-08.

Witness: Peter Eichler

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Kentucky Power Company  
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**DATA REQUEST**

**KIUC 2\_11** Refer to the response to KIUC 1-50(b). Explain why the Company will not agree to hold harmless customers from the incremental transition and/or integration costs that it would not incur but for the proposed and/or actual acquisition. Such costs include, but are not limited to, IT integration costs, warranties and representations insurance, directors and officers tail insurance, removal of AEP signage and replacement with Liberty signage, accounting and other internal and external costs to transition from AEPSC services to standalone services, among others.

**RESPONSE**

Liberty believes that many of the costs incurred identified as Long Lived Transition Costs will have significant benefits to customers beyond the useful life that would have existed if not for the transaction. For example, it is Liberty's understanding that the CIS currently utilized by Kentucky Power is at the end of its useful life and is no longer supported by the vendor. In the absence of the transaction, AEP was in the planning stages of replacing the system and would have incurred costs to replace such systems. In any event, the new systems that will be implemented by Liberty replace other systems that are being retained by AEP and whose book value will no longer be part of the rate base of the utility. In both these instances the Long Lived Transition Costs will either replace capital that is already in the rate base or will provide benefits to customers over the long run, irrespective of the transaction.

Witness: Peter Eichler

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**DATA REQUEST**

**KIUC 2\_12** Refer to the response to KIUC 1-52, which refers to the response to KIUC 1-65. Neither response provides the information requested. Provide the requested information.

**RESPONSE**

Liberty typically does not estimate what its acquisition premium will be at the time of closing, and therefore forecasted plant at closing are unknown (since timing is unknown, the precise number cannot be known). However, as an estimate, if Liberty were to have closed the acquisition at the end of 2020, the following would represent the premium on Liberty's books:

Year end 2021 Estimated Plant (\$B)	\$2.307*
Purchase Price (\$B)	\$2.846
Estimated Goodwill (\$B)	\$0.539

\*Includes a combined Kentucky Power and Kentucky Transco Estimated 2021 Year-End Book Value.

Witness: Peter Eichler

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**DATA REQUEST**

**KIUC 2\_13** Refer to the response to KIUC 1-53. Confirm that the Company will not record transaction costs on its accounting books and that such costs will be recorded on Liberty's accounting books. If confirmed, then explain why Liberty is willing to record the transaction costs on its accounting books and hold the Company's customers harmless from such costs, but is not willing to hold the Company's customers harmless from the incremental transition and/or integration costs that it would not incur but for the proposed and/or actual acquisition.

**RESPONSE**

Please see response to KIUC 2-11.

Witness: Peter Eichler

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**DATA REQUEST**

- KIUC 2\_14** Refer to the responses to KIUC 1-55 and 1-56 wherein “counsel” asserted an objection on behalf of the “Joint Applicants” to providing information on AEP’s accounting for the gain on the sale of the Company and Kentucky Transco to Liberty and the tax consequences of the sale, respectively.
- a. Explain Liberty’s interest in objecting to this request for AEP specific information.
  - b. Identify the “counsel” objecting to these responses and the party “counsel” represents in this proceeding.
  - c. Identify all counsel representing the Applicants in this proceeding. For each firm, identify the specific client the firm represents and in what capacity and scope of representation.

**RESPONSE**

a. The referenced data request(s) did not identify to which Joint Applicant(s) those requests were directed. For that reason, because KIUC's entire first set of data requests was propounded jointly to Joint Applicants, and for administrative efficiency, Joint Applicants articulated the majority of objections propounded to KIUC's first set of data requests on behalf of "Joint Applicants".

b. As to AEP and Kentucky Power: Mark Overstreet and Katie Glass, counsel for AEP and Kentucky Power.

As to Liberty: James Gardner and Todd Osterloh, counsel for Liberty.

c. See response to subpart b. Liberty has also moved for, and was granted, the admission *pro hac vice* of Sarah Knowlton and Kenneth Tillotson, in-house counsel for Liberty.

Respondent: Counsel

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**DATA REQUEST**

- KIUC 2\_15** Refer to the response to KIUC 1-58, which asked for a copy of the AEP Tax Allocation Agreement.
- a. Explain Liberty's interest in objecting to this request for AEP specific information.
  - b. Identify the "counsel" objecting to these responses and the party "counsel" represents in this proceeding.
  - c. Explain why "counsel" believes that the loss of the reimbursement by AEP to the Company for the tax effect of net operating losses is "outside the scope of this proceeding" when it is an identifiable cost to the Company and a potential harm to customers. Identify each attorney making this claim and assessment as "counsel."
  - d. Indicate if "counsel" is aware that the Company provided a copy of the AEP Tax Allocation Agreement in response to AG-KIUC discovery in Case 2021-00421 and that it is otherwise publicly available in various forums.

**RESPONSE**

- a. See the response to KIUC 2-14a. KIUC 1-58 was requesting information directly from AEP. As such, Liberty does not have an interest in objecting to the requested information and did not consider the objection asserted by its counsel.
- b. See the response to KIUC 2-14b.
- c. The reimbursement and thus the tax allocation agreement is irrelevant because the reimbursement will be removed for the Company's NOLC rate-making position and therefore the customer's should not and have not received a benefit. Therefore, it is not an identifiable cost to the Company as indicated in the question. Counsel relied on the explanations of tax personnel to determine that the information requested by KIUC is outside the scope of this proceeding.
- d. Yes. However, Joint Applicants note that the fact that a document is relevant in one regulatory proceeding, concerning affiliate agreements, does not make the document relevant in another case concerning a different set of issues. The AEP Tax Allocation

Agreement, though it may be a publicly filed document, is not relevant to this proceeding.

Witness: Allyson L. Keaton (as to subpart c)

Respondent: Counsel (as to subparts a, b, and d)

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**DATA REQUEST**

- KIUC 2\_16** Refer to the response to KIUC 1-59, which states that Liberty does not have a tax allocation agreement in place.
- a. Explain why Liberty does not have a tax allocation agreement.
  - b. Explain how the Commission will be able to review and assess the tax treatment that will be afforded the Company if the acquisition closes and it is no longer a member of the AEP affiliate group or subject to the AEP Tax Allocation Agreement.
  - c. Indicate if Liberty plans to draft and execute a tax allocation agreement. If not, explain why not.
  - d. Describe the Liberty tax allocation process, including the inputs and outputs, given that there is no writing to document it. Provide an illustration of the tax allocation, including the inputs and outputs, and identify the sources of the inputs and the accounting for the outputs.
  - e. Confirm that the Liberty tax allocation process does not include reimbursement of the tax effects of net operating losses of the Liberty subsidiaries, which will include the Company if the acquisition closes.

**RESPONSE**

- a. Tax allocation agreements are not required. Liberty follows all the relevant ASC 740 guidance and the Internal Revenue Code of 1986, as amended.
- b. The Company's tax records will be recorded on a standalone basis. The Commission will have access to the underlying books and records of the Company in order to assess the tax treatment as needed.
- c. Liberty may draft and execute a tax allocation agreement in the future.
- d. The Company would be treated as a stand-alone company for income tax purposes and would retain its attributes. If Liberty decides to create a tax allocation agreement, we will create a tax allocation document to outline the process.
- e. The Company would be treated as a standalone company for income tax purposes and would retain its attributes.

Witness: Michael McCuen



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**DATA REQUEST**

**KIUC 2\_17** Refer to the response to KIUC 1-61(a). Confirm that it is Mr. West's testimony that the Company does not have the budget and forecast information requested. If this is not correct, then provide the information that was requested.

**RESPONSE**

Not confirmed. Please see the Joint Applicants' Supplemental Response to KIUC1-61 for the requested information.

Witness: Brian K. West

American Electric Power Company, Inc.  
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**DATA REQUEST**

**KIUC 2\_18** Refer to the response to KIUC 1-61(b). Confirm that it is Mr. Eichler's testimony that Liberty has not prepared a financial forecast of the Company's operating expenses. If this is not correct, then provide the information that was requested.

**RESPONSE**

It is Mr. Eichler's testimony that a document responsive to the request is not available. This is because it is atypical of an acquiring entity to prepare budgets with the level of granularity sought; rather, it has been Liberty's experience that during its first year of operations it will assume the budgets in place by the current owner and then create detailed budgets such as the one sought for the next operating year, after it has had the benefit of experience of ownership. For the purposes of valuation, Liberty assumed the current O&M forecast provided by AEP.

Witness: Peter Eichler

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**DATA REQUEST**

- KIUC 2\_19** Refer to the response to KIUC 1-62.
- a. List each of the “existing facilities” that will be used to house the additional 100 local employees if the Liberty acquisition closes.
  - b. Refer to the response to part (a) of this question. Identify the positions that will be housed in each of the “existing facilities.”
  - c. Describe the additional infrastructure that will be required in each of the “existing facilities” to house the additional employees.

**RESPONSE**

- a. Liberty anticipates co-locating new personnel in locations where existing employees with whom regular job and role-based interactions are beneficial. Liberty expects to balance the hiring as much as feasible across the Kentucky Power service territory in the Ashland, Pikeville and Hazard Service centers, the downtown Ashland office and the Big Sandy facility in Lousia, KY.
- b. While the final location for each employee is not set, as of this time, Liberty anticipates the following:

Functional Area	Potential location
Generation: Environmental services, Projects, Engineering	Big Sandy Plant and for personnel supporting T/D/G - Ashland Service Center
Commercial Operations	Ashland Service Center
Transmission	Pikeville Transmission Ctr and Ashland Service Center
Customer Service	TBD based on availability in existing service centers in Kentucky (Ashland, Pikeville, Hazard)
IT, Procurement, H&S, HR, Audit, Finance	Distributed across existing service centers in Kentucky

Corporate roles (Compliance, Regulatory)	Predominantly based in Ashland Service Center and Ashland downtown office
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c. Liberty anticipates for most added roles, the existing office facilities and related technology infrastructure are sufficient. Call centers require technology connectivity which will be a consideration in determining the final locations in conjunction with the potential to find qualified employees.

Witness: David Swain

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**DATA REQUEST**

**KIUC 2\_20** Refer to the response to AG 1-40(d) wherein it states: “As reflected in the attachment provided in response to part (b), Liberty’s preliminary analysis estimates that Kentucky Power will receive approximately \$3.2 million of costs from APUC.” No attachment was cited or provided in the response to part (b). Provide the referenced attachment.

**RESPONSE**

The correct attachment that was intended to be referenced is the attachment to KPSC 1-17, JA\_R\_STAFF\_1\_17\_Attachment\_Project Nickel Allocations.xlsx

Witness: Jill Schwartz

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**DATA REQUEST**

**KIUC 2\_21** Refer to the response to AG 1-40(j) regarding asset transfers between the Company and Kentucky Transco. Provide a description of whether and under what circumstances ownership and/or operation of existing assets will or could be transferred from the Company to another Liberty affiliate, especially, but not limited to, general and other plant assets that will be used by the former Company employees that will become employees of Liberty Utilities Service Corp. (“LUSC”). LUSC “will employ all the employees of Kentucky Power Company,” according to the response to KIUC 1-63.

**RESPONSE**

There is no plan to transfer any assets owned by Kentucky Power Company to any Liberty affiliate, and Liberty has not contemplated any such scenarios. Employees of Liberty Utilities Service Corp. would use the assets of Kentucky Power Company to provide service to Kentucky Power Company customers.

Witness: Peter Eichler

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**DATA REQUEST**

**KIUC 2\_22** Refer to the CAM provided in response to AG 1-40(a), which states in part at 25-26:  
APUC or LUC will make capital investments such as corporate headquarters, IT systems, etc. that benefit the various operating businesses. The costs of these investments may be distributed monthly in the form of an intercompany operating expense charge, that captures the depreciation expense and cost of capital associated with the particular assets, or an alternate method of capital allocation based on the particular needs of the project . . .

- a. Confirm that under the Company's present CAM, AEPSC allocates actual interest expense to the Company, but does not calculate and allocate a hypothetical "cost of capital," such as the Company's cost of capital grossed up for income taxes.
- b. Provide the calculation templates that are and will be used by APUC and LUC to calculate their costs of capital, including the capital structures and costs of each capital components, as well as any income tax gross-up for such charges to their affiliates and that will be used for charges to the Company if the acquisition closes.
- c. Confirm that LUSC also will charge a cost of capital to the Company. If confirmed, identify where in the CAM this charge is described. In addition, provide the calculation templates that are and will be used by LUSC to calculate their costs of capital, including the capital structures and costs of each capital component, as well as any income tax gross-up for such charges to their affiliates and that will be used for charges to the Company if the acquisition closes.

**RESPONSE**

a. Confirmed.

b. Liberty does not have standard templates for calculating "costs of capital" that are used for costs allocated to subsidiaries. The CAM paragraph referenced in this request refers to capital investments/costs that are incurred and/or capitalized on a parent company's (e.g. APUC or LUC) books and included in the monthly intercompany billings to affiliates. For capital costs that are incurred by APUC or LUC and capitalized by APUC or LUC, the depreciation expense is included in the monthly intercompany

indirect allocations to affiliates. The referenced paragraph is not intended to suggest that APUC's or LUC's cost of capital (i.e. capital structures, debt costs and return on equity) are allocated to affiliates.

c. Consistent with Liberty's response to part (b), LUSC does not allocate "cost of capital" to affiliates.

Witness: Jill Schwartz

Witness: Brian J. Frantz (part a)



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**DATA REQUEST**

**KIUC 2\_23** Refer to the response to KIUC 1-64(b). Confirm that it is Mr. Eichler's testimony that Liberty has not developed a forecast of the proforma financial statements of the Company if the acquisition closes. If this is not correct, then provide the information that was requested in the level of detail available, if not available at the FERC account level of detail.

**RESPONSE**

It is Mr. Eichler's testimony that a forecast combining Liberty and Kentucky Power's operations was not completed; rather, the pro-forma impact of incorporating Kentucky Power into Algonquin Power & Utility Corp.'s business was conducted, the results of which are provided in response to Staff 1-68, page 101.

Witness: Peter Eichler

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**DATA REQUEST**

**KIUC 2\_24** Refer to the response to KIUC 1-66.

- a. Confirm that a portion of the actual and/or planned funding by Liberty for the acquisition of the Company's common equity will consist of short-term debt and/or long-term debt. The response to KIUC 1-66 referenced the response to Staff 1-23, which provided a list of potential funding sources in addition to the \$620 million in equity financing, but did not set forth a specific plan for the remaining \$1 billion or more to finance the purchase. If confirmed, provide the actual and/or planned debt funding of the purchase price between the two types of debt financing and the costs of each type of debt financing.
- b. Confirm that to the extent Liberty uses debt to finance a portion of its acquisition of the Company's common equity, the interest expense on that debt will be a deduction for US income tax purposes. If this is not correct, then provide a corrected statement and an explanation as to why it was necessary to correct the statement.
- c. To the extent that Liberty uses debt to finance a portion of its acquisition of the Company's common equity, will Liberty agree as a condition to the merger to provide the Company's customers some or all of the income tax savings due to the interest expense deduction related to that debt as a reduction to the revenue requirement? If not, explain why not.

**RESPONSE**

- a. The financing plan for Kentucky Power is designed to maintain Liberty's and Algonquin's overall capital structure. This is dependent on many factors and not just this individual transaction.
- b. Liberty does not intend on using debt to finance the Company's common equity.
- c. As described in subpart a., the financing plan is designed to maintain an overall capital structure, and thus it would be inappropriate to assert that an additional benefit has been created.

Witness: Peter Eichler

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**DATA REQUEST**

**KIUC 2\_25** Refer to the Company's response to KIUC 1-68(a). The response listed the functional areas, but did not provide the information specifically requested in the question. Provide the information requested.

**RESPONSE**

Joint Applicants fully responded to KIUC 1-68(a) in their original response. To clarify further, the descriptions of the professional teams provided by Liberty also apply to AEP's transition and separation teams.

Witness: Stephan T. Haynes

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Kentucky Power Company  
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**DATA REQUEST**

**KIUC 2\_26** Refer to the Company's response to KIUC 1-68(b). AEP objected, but Liberty did not object; yet, Liberty failed to provide the requested information. Provide the information requested.

**RESPONSE**

As indicated in the response to KIUC 1-68 (a), Liberty and AEP are jointly engaged in transition and separation activities. While only AEP objected, the objection was intended to be made on behalf of the Joint Applicants as the separation and transition activities are highly intertwined as AEP works to separate Kentucky Power Company from the AEP family of businesses and then works to transition Kentucky Power Company to Liberty. As indicated in the objection, the transition process is ongoing and the documents underlying that transition are iterative. Liberty and AEP can provide a description of the nature of the transition in particular subject matter areas, but draft documents, which are still being negotiated and are subject to modification, are irrelevant and not reasonably calculated to lead to the discovery of admissible evidence.

Witness: Counsel

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Dated February 4, 2022

**DATA REQUEST**

- KIUC 2\_27** Refer to the response to KIUC 1-71, which seeks an accounting template for all AEP accounting journal entries (debit and credit) on the date of closing, including, but not limited to, all balance sheet entries, including cash, financing, and benefit plans assets and liabilities; and all income statement entries, including gains and losses; and tax entries. The Joint Applicants objected, but stated that “the requested journal entries have not been prepared.”
- a. Describe what interest Liberty has in objecting to a request directed to AEP for a template of its accounting entries if the acquisition closes.
  - b. The witness responsible for the objection and response is identified as Allyson Keaton. Provide Ms. Keaton’s employer and position and a brief description of her responsibilities, including the scope of her personal involvement and/or knowledge as to the status of or development of a template for the AEP accounting entries.
  - c. Identify the person(s) who determined and claim that the request is outside the scope of this proceeding and provide the basis for that determination.
  - d. The question did not ask for the actual journal entries, but rather asked for a template for the journal entries. Provide the information requested or state, if correct, that AEP has not considered and/or developed a template for the accounting entries.

**RESPONSE**

- a. See the response to KIUC 2-14a.
- b. Allyson Keaton is a Tax Analyst Principal - Tax Accounting and Regulatory Support for American Electric Power Service Corporation, a wholly owned subsidiary of American Electric Power Company, Inc., the parent company of Kentucky Power Company. Ms. Keaton earned a Bachelor of Science Degree in Accounting and a Masters of Taxation Degree with 24 years of experience in tax at utility companies. Ms. Keaton would have knowledge, given her position with AEPSC, of whether the requested journal entries have been prepared, and she is not aware of any previously developed or created tax entries prepared by AEP Tax for this purpose.

c. Counsel for Joint Applicants made that determination based upon KRS 278.020(6) and (7).

d. Joint Applicants object to this request on the basis that it seeks information that is outside the scope of this proceeding and that is neither relevant to this proceeding nor calculated to lead to the discovery of admissible evidence. Joint Applicants further object to this request to the extent it seeks to require Joint Applicants to prepare documents that they have not previously created. Subject to and without waiving the foregoing objections, the Joint Applicants state: A comprehensive template of all AEP accounting journal entries that could occur on the date of closing has not been prepared due to various uncertainties, including, but not limited to, the details of the Commission's order in this matter. However, AEP has prepared the summary at JA\_R\_KIUC\_2\_27\_Attachment1.xlsx which provides a limited overview of generally expected AEP accounting and tax entries, including impacted FERC accounts, upon closing.

Witness: Allyson L. Keaton

Witness: Michael A. Baird

Respondent: Counsel

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_28** Refer to the response to KIUC 1-71, which seeks an accounting template for all Kentucky Power Company accounting journal entries (debit and credit) on the date of closing, including, but not limited to, all balance sheet entries, including cash, financing, and benefit plans assets and liabilities; and all income statement entries, including gains and losses; and tax entries. The Joint Applicants objected, but stated that “the requested journal entries have not been prepared.” The question did not ask for the actual journal entries, but rather asked for a template for the journal entries. Provide the information requested or state, if correct, that neither AEP, on behalf of Kentucky Power Company, nor the Company itself, has considered and/or developed a template for the accounting entries.

**RESPONSE**

Please refer to the response to KIUC 2-27 subpart (d).

Witness: Allyson L. Keaton

Witness: Michael A. Baird

Respondent: Counsel

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
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**DATA REQUEST**

**KIUC 2\_29** Refer to the response to KIUC 1-76(a)(ii), which states:

In the course of its due diligence work, Liberty established that Kentucky Power's ratio of annual capital additions to depreciation expense is substantially below those of other large utilities and is substantially below the 2.0 multiple that is seen in the industry as a minimal measure of capital replenishment for a power utility. At the same time, Liberty's due diligence work saw that Kentucky Power's reliability is substantially below the industry standards and aside from the most recent year, has shown a declining trend. Assessing these two observations in tandem, Liberty made a working assumption that capital underinvestment is a driver behind Kentucky Power's reliability performance, and is an area Liberty intends to explore further.

- a. Provide a non-confidential copy of the referenced analyses and all other analyses developed by or for Liberty that demonstrate a history of "capital underinvestment" and the effects of such underinvestment on reliability and/or maintenance expenses.
- b. Confirm that the distribution maintenance expense per customer compared to other large utilities may provide demonstrate the effects of "capital underinvestment" and a potential tradeoff between lower investment that results in greater expense. Indicate if Liberty has made an assessment of this metric either in its due diligence or consideration of the capital investment that will be required to make up for the prior underinvestment and the potential savings in such expense if it makes the additional capital investment. If so, then provide all such analyses and assessments.
- c. Provide Liberty's assessment of the additional capital investment that will be required to make up for the prior underinvestment.

**RESPONSE**

a. Please see the Attachment JA\_R\_KIUC\_2\_29\_Attachment.pdf, constructed using S&P market intelligence data.

b. Liberty notes that the relationship between capital investment and maintenance is far more nuanced and complex than the question implies. For example, in some cases, maintenance work that extends asset lifecycle for several years at a fraction of a cost of a



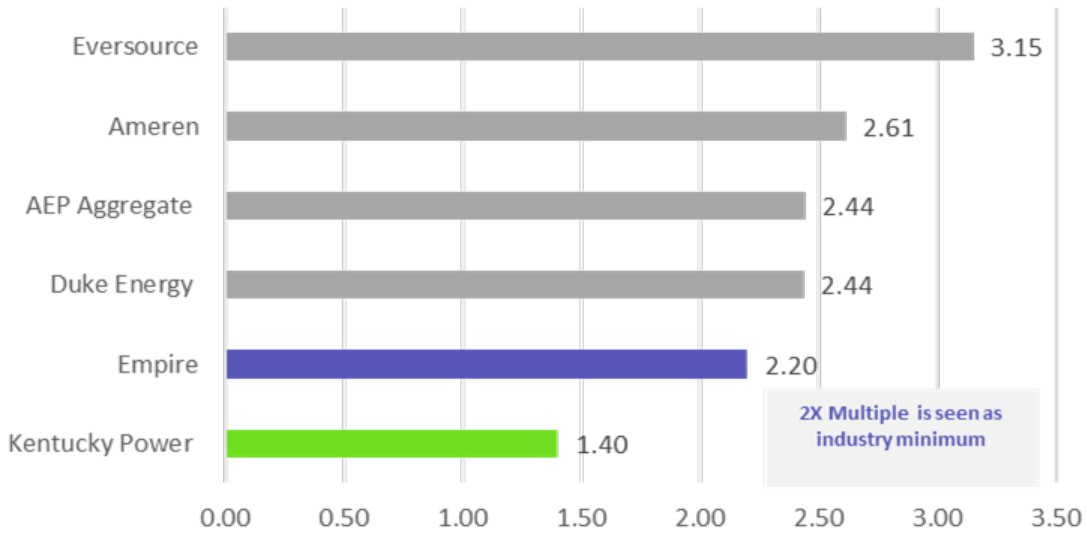
wholesale renewal may be a preferable near-term outcome. Moreover, since a sufficiently granular maintenance breakdown was not available, and given that maintenance spend magnitude is often a function of asset management policy, Liberty did not conduct the referenced analysis.

c. For clarity, the “prior underinvestment” referenced in the question was a hypothesis advanced in the course of Due Diligence work, grounded in comparison of high-level financial metrics. Liberty has not conducted sufficiently comprehensive and detailed analysis at the time of due diligence or since that would be required to state that there has been underinvestment as the question implies.

Witness: Peter Eichler (for parts a, c)

Witness: Drew Landoll (for part b)

**Capital Expenditures as Multiples of Depreciation**  
*2017-2020 Average*



American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
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**DATA REQUEST**

- KIUC 2\_30** Refer to the Application in this proceeding at pdf 517, which is the liability side of the Company's balance sheet at December 31, 2020 and December 31, 2019 in its 2020 Annual Report. The common equity shown at December 31, 2020 is \$823 million.
- a. Confirm that Liberty agreed to pay AEP \$2,846 million for the Company and the Kentucky Transco, including the assumption of \$1,200 million in long-term debt, pursuant to the terms set forth in the Stock Purchase Agreement attached as Exhibit 5 to the Application in this proceeding.
  - b. Confirm that Liberty agreed to pay \$1,646 million for the Company's and Kentucky Transco's common equity.
  - c. Provide a calculation of the acquisition premium for the common equity of each Company in live Excel format with all formulas intact.

**RESPONSE**

- a. Confirmed, subject to the terms set forth in the Stock Purchase Agreement.
- b. Confirmed, subject to the terms set forth in the Stock Purchase Agreement.
- c. Liberty does not have a document that is responsive to this request. Please also see the response to KIUC 2-12.

Witness: Peter Eichler

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
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**DATA REQUEST**

- KIUC 2\_31** Refer to the Excel attachment analysis provided in response to Staff 1-17. Refer further to the worksheet tab entitled “Incoming Project Costs” and to the costs in cell column C, which are described as “2020 Total” costs. Refer also to page 307.1 of the 2020 AEPSC FERC Form 60 at line 9, which shows \$70.442 million in total costs charged in 2020 to KPCo.
- a. Provide a copy of the data source(s) for the “2020 Total” costs identified by category in the Excel attachment analysis provided in response to Staff 1-17.
  - b. Indicate whether these “2020 Total” costs were all charged by AEPSC to KPCo during 2020, or whether they are a combination of AEPSC charges and KPCo directly incurred costs. If the response is different for different cost categories depicted, explain.
  - c. Indicate whether the “2020 Total” costs represent all costs, including O&M expenses, capital costs, and other costs as also depicted as KPCo charged amounts in the 2020 FERC Form 60 at page 307.1 line 9 or whether they represent only O&M expenses.
  - d. Refer to cell row 12 in the referenced “2020 Total” costs column, which shows a \$14.421 million credit for “Mitchell Plant Co-Ownership Credit.” Describe what this credit is and whether it relates only to AEPSC charges to KPCo or whether it relates to a combination of AEPSC charges and KPCo directly incurred costs. In addition, provide all support and a copy of the source document(s) relied on for the amount of this credit. If it is based on a calculation, provide the calculation in live Excel format with all formulas intact and annotated to the source documents and assumptions relied on for the inputs to the calculation.
  - e. Refer to cell row 12 in the referenced “2020 Total” costs column, which shows a \$14.421 million credit for “Mitchell Plant Co-Ownership Credit.” Explain how this credit amount removes well over 90% of the generation-related costs depicted in cell rows 6-11.
  - f. Refer to cell row 34 in the referenced “2020 Total” costs column, which shows a \$1.667 amount of costs in 2020 incurred for “Kentucky Leadership”. Describe this category of costs and explain why it is assumed that this cost will be reduced to \$0 post acquisition.
  - g. Refer to cell row 36 which depicts the grand total of all “2020 Total” costs to be \$69.607 million after reduction for the \$14.421

million credit for the “Mitchell Plant Co-Ownership Credit” in cell row 12. Without this credit the grand total of all the “2020 Total” costs would be \$84.029 million. Reconcile the \$69.607 million and \$84.029 million amounts with the \$70.442 million in total costs charged to KPCo from AEPSC as depicted in the 2020 AEPSC FERC Form 60.

## **RESPONSE**

- a. Refer to JA\_R\_KIUC\_2\_31\_Attachment1.xlsx for the source data for “2020 Total” costs identified by category provided in response to Staff 1-17. Please note that the “Corporate Services” provided in Staff 1-17 were inadvertently based upon 2021 estimates, the correct 2020 Corporate Services costs are included within this attachment. The correct Corporate Services total for 2020 Actuals is \$40,212,274, a difference of \$363,679. As a result, the correct total for 2020 is \$69,971,425.
- b. The costs included in the “2020 Total” are comprised of the following categories: (1) AEPSC charges to Kentucky Power; (2) AEPSC charges to AEP Kentucky Transmission Company (Kentucky Transco); (3) other AEP affiliate charges to Kentucky Power; and (4) other AEP affiliate charges to Kentucky Transco.
- c. The costs included in the “2020 Total” include all charges included in the monthly billings to Kentucky Power and Kentucky Transco from AEPSC and from other affiliates as shown in the 2020 FERC Form 60 at both page 307.1 line 9 and page 307 line 16.
- d. The Mitchell Plant Co-Ownership Credit is intended to reflect the full cost of operations of the facility as it relates to services provided by AEPSC and other AEP affiliates; no direct Kentucky Power costs are included. The amount includes costs ultimately charged to Kentucky Power and costs ultimately charged to co-owner Wheeling Power Company.
- e. In theory, after removing all Mitchell Plant costs, only AEPSC and other AEP affiliate support costs related to the Big Sandy Plant would remain. In addition, some of the cost included Mitchell Co-Ownership Credit would relate to other categories within Corporate Services.
- f. Kentucky Leadership includes charges resulting from Kentucky Power’s general ledger structure. Kentucky Power manages its business with three general ledger business units. Certain Kentucky employees support more than one of the three Kentucky business units which generates affiliate transactions between Kentucky business units which fully eliminate when viewing a consolidated Kentucky Power.

g. The components of the 2020 Total related to AEPSC billings to Kentucky Power and Kentucky Transco are identified in JA\_R\_KIUC\_2\_31\_Attachment2.xlsx and reconciled to the amounts provided in the 2020 AEPSC FERC Form 60.

Witness: Jill Schwartz

Witness: Brian J. Frantz

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
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**DATA REQUEST**

**KPSC 2\_32** Refer to the Excel attachment analysis provided in response to Staff 1-17. Refer further to the worksheet tab entitled “Incoming Project Costs” and to the costs in cell columns C and D, which are described as “2020 Total” and “Direct cost incurred/allocated to Opco” costs, respectively. Finally refer further to the costs in column D which are either 50% or 75% of the “2020 Total” costs for cell rows 7,8,11,15,17,18,22, and 28. For each category of costs in the referenced cell rows individually, provide all support for the percentages under Liberty ownership compared to the costs incurred under AEP ownership.

**RESPONSE**

Liberty’s initial analysis estimated that a portion of the generation and transmission services currently provided by AEPSC to Kentucky Power would be replaced by shared services allocated to Kentucky Power in accordance with Liberty’s CAM (see column F of the “Incoming Project Costs” tab). In addition, Liberty estimates that the remaining portion of the generation and transmission services will be incurred locally by Kentucky Power, which is reflected in column D. With regards to Procurement (row 22) and Accounting/Tax (row 28), Liberty estimates that 50 percent of the costs currently incurred by Kentucky Power through AEPSC will be incurred directly/locally (column D), and the other 50 percent will be allocated to Kentucky Power through the LABS business unity in accordance with the CAM (column E).

Witness: Jill Schwartz

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
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**DATA REQUEST**

- KIUC 2\_33** Refer to the Excel attachment analysis provided in response to Staff 1-17. Refer further to the worksheet tab entitled “Allocation Summary”, which shows allocated costs to Liberty Utilities affiliates prior to and subsequent to the addition of the proposed acquired affiliates including KPCo.
- a. Indicate whether the depicted costs represent all costs, including O&M expenses, capital costs, and other costs to be charged to affiliates or whether they represent only O&M expenses.
  - b. Indicate whether the depicted costs represent all “Corporate Services” costs as depicted on the worksheet tab entitled “Incoming Project Costs” in the same Excel file and do not also include generation and transmission related services.

**RESPONSE**

- a. The costs included on the “Allocation Summary” tab represent the O&M expenses allocated to Liberty’s regulated utilities, prior to capitalization. Approximately 32 percent of the allocated shared services (O&M expenses) are capitalized as indirect overhead on the utilities’ capital projects.
- b. The costs summarized on the “Allocation Summary” tab include all of the corporate shared services allocated to regulated utilities in accordance with the CAM. The breakdown of each affiliate cost pool by expense category or department/function is provided on the “APUC Costs”, “LUC Costs”, “LABS”, and “LibCorp” tabs included in the attachment provided in response to Staff 1-17.

Witness: Jill Schwartz



American Electric Power Company, Inc.  
Kentucky Power Company  
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**DATA REQUEST**

**KIUC 2\_34** This request is directed solely to Liberty. Refer to the confidential Liberty (not shared with AEP) response to AG 1-63 at 80-82 and the last column of the table at 81-82. For each item on the table, confirm a) that Liberty's assessments are correct and b) that Liberty has the option indicated in the last column of the table at 82-82. For each item on the table, indicate the option that Liberty has or will elect and provide the cost and the related savings if it elects to proceed. In addition, provide all supporting documentation relied on for the assessments and all quantifications of the potential cost if it elects to proceed.

**RESPONSE**

Please see Confidential Attachment JA\_R\_KIUC\_2\_34\_ConfidentialAttachment.pdf.

Witness: Michael Mosindy

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_35** Refer to the attachment to the response to AG 1-80(b). Provide a more detailed schedule that shows each debt issue presently outstanding and expected to be outstanding at the date of closing. For each debt issue, indicate if Liberty will be required to refinance it, and, if so, what the make whole premium and other costs will be to do so and the savings in or additional interest expense Liberty expects that it will incur on an annualized basis for each of the next ten years, if any.

**RESPONSE**

Refer to attachment JA\_R\_KIUC\_2\_35\_Attachment.xlsx for a schedule that shows each debt issue presently outstanding and expected to be refinanced at closing. All debt that is expected to be refinanced at closing will not incur any make whole premiums or other costs. It is expected that Liberty will refinance using short-term debt at rates similar to those Kentucky Power is currently paying and convert to long term debt upon approval from the KYPSC, shortly after closing.

Witness: Michael Mosindy

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_36** Refer to the response to KIUC 1-31. Will the proposed Bridge PCA provide KPCo similar, offsetting protection from other over performing units of the AEP Operating Companies in the event of a KPCo capacity underperformance? If so, describe in detail. If not, explain why it will not.

**RESPONSE**

Yes. In the event of a capacity underperformance by a Kentucky Power unit, the proposed Bridge PCA will provide Kentucky Power similar protection to the current PCA by allowing that underperformance to be offset by the overperformance, if any, from the units of the remaining AEP Operating Companies.

For example if a PJM RTO wide emergency event is declared, all units in the FRR portfolio will be required to perform to their various capacity commitments. To make the example simple, assume there were only 2 units in the portfolio - Unit A which belongs to the AEP Operating Companies and Unit B which belongs to Kentucky Power. If unit A overperforms from its capacity commitment by 1 MW and Unit B underperforms from its Capacity commitment by 1 MW, then the overperformance and underperformance will be netted against each other such that the portfolio would have no underperformance and Kentucky Power would be protected.

Witness: Amanda R. Conner

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
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Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_37** Provide an estimate of the current cost to insure a capacity underperformance and explain how such insurance is priced (i.e., is it priced on a \$/kW basis).

**RESPONSE**

The current estimate of the cost to insure Capacity underperformance is \$0.34/MW-day. Based on past negotiations, such insurance could be priced based on a number of factors such as the resource mix of the units in the FRR portfolio, the non-performance charge rate and the risk of forced outages at the units in the portfolio.

Witness: Amanda R. Conner

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_38** Refer to the Application at 9 wherein it references “approval of the amended Mitchell Plant Ownership Agreement.” Confirm that there is no “amended” Mitchell Plant Ownership Agreement and that this is an error in the Application.

**RESPONSE**

There is not an error in the Application. The proposed Mitchell Plant Operations and Maintenance Agreement and the proposed Mitchell Plant Ownership Agreement, which are the subject of Case No. 2021-00421 and which are included in Exhibit 5 of the Joint Applicants’ Application in this matter, jointly amend the current Mitchell Plant Ownership Agreement. As such, these documents may be referenced as "the amended Mitchell Plant Ownership Agreement."

Witness: Stephan T. Haynes

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSB Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_39** With respect to the \$11 million incurred in the spring and winter of 2020 and the \$75 million incurred in winter 2021 to repair the system and restore service in response to severe weather and storms, provide a copy of all analyses, root causes, and/or all other critiques performed by or for the Company that address the scope of physical damages, cost to repair the system and restore service, and/or proposals and/or recommendations to minimize such storm damages in the future. If no such analyses were performed, then describe why the Company did not engage in any self-assessments or third-party assessments.

**RESPONSE**

The Joint Applicants object to this request on the basis that it seeks information that is outside the scope of this proceeding and that is neither relevant to this proceeding nor calculated to lead to the discovery of admissible evidence.

Subject to and without waiving this objection, the Joint Applicants state:

Each storm is unique in nature and after each storm, all charges were closely scrutinized to ensure accurate reporting of labor, equipment and material. The impacted areas were visually inspected to verify facilities were restored to normal and any hazardous conditions were mitigated. Some of the additional cost during the February 2021 storms were due to the fact there were three unusually destructive storms in one period that caused ice to accumulate to nearly one inch on trees and power lines. In addition, due to COVID protocols additional rooms and base camp trailers were needed to house employees and contractors.

No specific analyses were performed after the storms. However, Kentucky Power is taking steps to minimize storm damage in the future. Prior to 2014, Kentucky Power's distribution lines were built using the medium loading zone requirement of the National Electrical Safety Code (NESC), which means that the distribution line is built to withstand a 1/4 inch of ice. Although Kentucky is shown to be in the medium loading zone according to Figure 250-1 of the NESC (see JA\_R\_KIUC\_2\_39\_Attachment1.pdf), in January of 2014, Kentucky Power began designing the distribution lines to meet heavy loading requirements, which means lines are now built to withstand up to a half inch of ice. It will take several years to replace or modify over 210,000 poles and associated power lines to meet the heavy loading zone requirements.

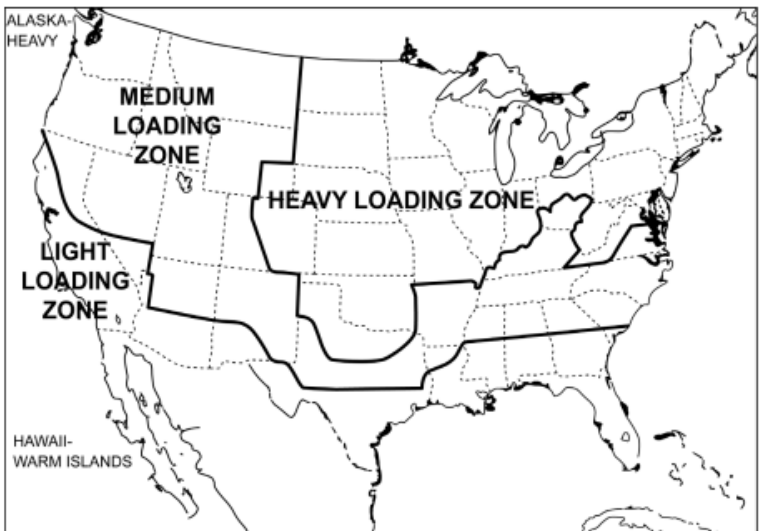
Kentucky Power would demonstrate the prudence of the costs at issue in a future rate proceeding in which it seeks recovery of those cost. See also the Joint Applicants' response to AG 2-3.

Witness: Brian K. West

F-250-1

Part 2: Safety Rules for Overhead Lines

F-250-1



The Warm Island Loading District includes American Samoa, Guam, Hawaii, Puerto Rico, Virgin Islands, and other islands located from 0 to 25 degrees latitude, north or south.

**Figure 250-1—General loading map of United States with respect to loading of overhead lines**



American Electric Power Company, Inc.  
Kentucky Power Company  
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**DATA REQUEST**

**KIUC 2\_40** Describe all actions taken by each of the major credit rating agencies with respect to the Company's debt subsequent to the announcement last year that AEP had entered into an agreement to sell the Company to Liberty. Indicate whether the rating agencies considered the sale to Liberty credit negative or credit positive. Cite and provide a copy of all relevant credit rating agencies releases and/or reports.

**RESPONSE**

Moody's: No action was taken. The transaction was considered credit neutral to AEP given the small size of the Kentucky companies and the use of substantially all of the cash proceeds to replace \$1.4 billion of AEP's planned equity financing in 2022.

S&P: Revised the CreditWatch implications on Kentucky Power to negative. The revised CreditWatch placement reflects the announced sale of Kentucky Power to lower-rated Algonquin Power & Utilities Corp., which is below S&P's issuer credit rating on Kentucky Power. CreditWatch with negative implications reflects their expectation that they will likely downgrade Kentucky Power by one notch as APUC, the acquiring entity, is currently rated 'BBB', and they expect to align their ratings on Kentucky Power with those of APUC.

Fitch: Downgraded AEP's Long-Term Issuer Default Rating and senior unsecured ratings to 'BBB' from 'BBB+'. The downgrade reflected the Company's announcement that the \$.1.45B cash proceeds from the planned sale of Kentucky Power to Algonquin Power & Utilities will be used to offset forecasted equity needs in 2022. As a result, Fitch expects the Company's credit metrics (FFO Leverage) to continue to exceed the stated downgrade threshold for a 'BBB+' rating.

Referenced reports can be found in JA\_R\_KIUC\_2\_40\_ConfidentialAttachment1.pdf and in JA\_R\_KIUC\_2\_40\_Attachment2.pdf and JA\_R\_KIUC\_2\_40\_Attachment3.pdf.

Witness: Stephan T. Haynes

JA\_R\_KIUC\_2\_40\_PublicAttachment1 has been redacted in its entirety.

Research Update:

# Kentucky Power Co. CreditWatch Implications Revised To Negative From Developing On AEP Sale Agreement

October 28, 2021

## Rating Action Overview

- American Electric Power Co. Inc. (AEP) announced that it has reached an agreement to sell Kentucky Power Co. (KPCo) and a Kentucky transmission entity to Algonquin Power & Utilities Corp. (APUC) for about \$2.85 billion, including assumed debt of about \$1.2 billion. The transaction is expected to close by the end of the second quarter of 2022.
- We revised the CreditWatch implications on KPCo to negative from developing on our 'BBB+' issuer credit rating and issue-level ratings on its senior unsecured debt. We previously placed the ratings on CreditWatch with developing implications on April 28, 2021.
- The revised CreditWatch placement reflects the announced sale of KPCo to lower-rated APUC, which is below our issuer credit rating on KPCo.

## Rating Action Rationale

**We revised the CreditWatch implications on KPCo to negative from developing.** The CreditWatch with negative implications reflects our expectation that we will likely downgrade KPCo by one notch as APUC, the acquiring entity, is currently rated 'BBB', and we expect to align our ratings on KPCo with those on APUC.

**Our assessment of KPCo's stand-alone credit profile (SACP) remains 'bbb'.** We continue to assess the company's business risk as strong and its financial risk as significant. Our business risk assessment reflects the regulatory support KPCo receives in Kentucky. The company was under a three-year base rate stay-out through 2020. The recent increase in KPCo's revenue supports its credit quality because it will enable it to recover a higher level of its capital and operating expenses. The company has a small customer base of about 170,000 and limited geographic diversity given that it operates almost entirely in Kentucky. That said, KPCo's service territory demonstrates modest growth. The company derives about half of its energy sales from industrial customers, which leads to less stability in its operating cash flow than if its customer

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**Research Update: Kentucky Power Co. CreditWatch Implications Revised To Negative From Developing On AEP Sale Agreement**

base was entirely residential. KPCo continues to be exposed to energy transition risks because of its coal-fired generation, which accounts for most of its generation capacity.

**We assess the company's financial risk profile as significant, which reflects its financial measures, including our expectation for funds from operations (FFO) to debt of 16%-17% through 2023.** Our assessment of KPCo's financial risk profile incorporates its recently approved rate case, which will strengthen its financial risk. We use our medial volatility table benchmarks to assess KPCo's financial risk, which are more relaxed benchmarks than those we use for typical corporate issuers. This reflects the company's steady cash flows, low-risk rate-regulated utility operations, and effective management of regulatory risk.

Our assessment of KPCo's group status as moderately strategic lifts our issuer credit rating on the company by one notch above its SACP to account for its limited group support.

## CreditWatch

The CreditWatch placement reflects AEP's announced sale of KPCo to lower-rated APUC. We expect to remove the CreditWatch and lower the ratings on KPCo to align with the lower-rated parent as the acquiring company nears or completes the transaction.

## Ratings Score Snapshot

Issuer Credit Rating: BBB+/Watch Neg/--

Business risk: Strong

- Country risk: Very low
- Industry risk: Very low
- Competitive position: Satisfactory

Financial risk: Significant

- Cash flow/leverage: Significant

Anchor: bbb

Modifiers

- Diversification/portfolio effect: Neutral (no impact)
- Capital structure: Neutral (no impact)
- Financial policy: Neutral (no impact)
- Liquidity: Adequate (no impact)
- Management and governance: Satisfactory (no impact)
- Comparable rating analysis: Neutral (no impact)

Stand-alone credit profile: bbb

- Group credit profile: a-
- Entity status within group: Moderately strategic (+1 notch from SACP)

**Research Update: Kentucky Power Co. CreditWatch Implications Revised To Negative From Developing On AEP Sale Agreement**

**Related Criteria**

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10, 2021
- General Criteria: Group Rating Methodology, July 1, 2019
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011

**Ratings List**

**Ratings Unchanged; CreditWatch Action**

	To	From
<b>Kentucky Power Co.</b>		
Issuer Credit Rating	BBB+/Watch Neg/--	BBB+/Watch Dev/--
Senior Unsecured	BBB+/Watch Neg	BBB+/Watch Dev

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at [www.standardandpoors.com](http://www.standardandpoors.com) for further information. Complete ratings information is available to subscribers of RatingsDirect at [www.capitaliq.com](http://www.capitaliq.com). All ratings affected by this rating action can be found on S&P Global Ratings' public website at [www.standardandpoors.com](http://www.standardandpoors.com). Use the Ratings search box located in the left column.

**Research Update: Kentucky Power Co. CreditWatch Implications Revised To Negative From Developing On AEP Sale Agreement**

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Fitch Downgrades AEP's L-T IDR to 'BBB' and S-T IDR to 'F3'; Affirms Kentucky Power



## RATING ACTION COMMENTARY

# Fitch Downgrades AEP's L-T IDR to 'BBB' and S-T IDR to 'F3'; Affirms Kentucky Power

Thu 28 Oct, 2021 - 11:24 AM ET

Fitch Ratings - New York - 28 Oct 2021: Fitch Ratings has downgraded American Electric Power Company, Inc.'s (AEP) Long-Term Issuer Default Rating (IDR) and senior unsecured ratings to 'BBB' from 'BBB+'. Fitch has also downgraded AEP's Short-Term IDR and CP to 'F3' from 'F2'. Additionally, Fitch has affirmed Kentucky Power Co.'s (KPCo) Long-Term IDR at 'BBB' and senior unsecured rating at 'BBB+'. The Rating Outlook for AEP has been revised to Stable from Negative. The Rating Outlook for KPCo is Stable.

The downgrade of AEP's Long-Term IDR reflects the company's announcement that the \$1.45 billion cash proceeds from the planned sale of KPCo to Algonquin Power & Utilities (APUC, BBB/Stable) will be used to offset forecasted equity needs in 2022. As a result, Fitch expects the company's credit metrics to continue to exceed the stated downgrade threshold for a 'BBB+' rating. The downgrade of AEP's Short-Term IDR reflects Fitch's assessment of AEP's financial structure, flexibility and operating environment, which results in the assignment of the lower of the two short-term options for the current long-term rating.

The affirmation of KPCo's Long-Term IDR reflects the company's weak, but expected to improve credit metrics and the anticipation that new ownership will continue to support KPCo in a manner that will be consistent with its current 'BBB' rating. Additionally, Fitch expects any conditions imposed by the Kentucky Public Service Commission (KPSC) will

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not be a deterrent to improved credit metrics at KPCo. The sale also includes KPCo's ownership of AEP Kentucky Transco, which is currently owned by AEP Transmission Company, LLC (AEP Transco, A-/Stable). AEP Transco is not impacted by the transaction, given AEP Kentucky Transco's small size.

## KEY RATING DRIVERS

American Electric Power Company, Inc.

**KPCo Strategic Review Outcome:** AEP announced on Oct. 26, 2021 that it has reached an agreement to sell KPCo to Liberty Utilities (LU, BBB/Stable) the regulated business subsidiary of APUC in a transaction valued at \$2.846 billion, including the assumption of \$1.3 billion in debt. The sale announcement is the result of a strategic review process announced in April 2021. The sale includes KPCo's Federal Energy Regulatory Commission (FERC) regulated assets, both at KPCo and AEP Transco. The transaction is expected to close 2Q22 and will require the approval of the KPSC and FERC, as well as federal clearance under the Hart-Scott-Rodino Act and the Committee on Foreign Investment in the U.S.

Separately, the parties are negotiating a new operating agreement for the coal-fired Mitchell plant, which is currently operated by KPCo, but jointly-owned by KPCo and AEP subsidiary Wheeling Power Co. (WPCo, NR). Under the new agreement WPCo will assume operational responsibility. Additionally, the agreement is expected to resolve Mitchell's disposition past 2028. The new agreement will require approval by KPSC, Public Service Commission of West Virginia, and FERC. Approval of the new Mitchell operating agreement is required for the transaction to close.

**Sale Proceeds to Offset Equity:** AEP has announced that the \$1.45 billion after tax cash proceeds from the sale of KPCo will be used to offset forecasted equity needs in 2022. As a result, Fitch expects the company's FFO leverage to average 5.4x over the forecast period exceeding the stated downgrade threshold for a 'BBB+' rating of FFO leverage of 5.0x. Fitch's calculations include the effect and assumed favorable regulatory treatment of approximately \$1 billion in additional fuel or purchased power costs amassed in February 2021 at PSO and SWEPCO as a result of Winter Storm Uri.

**Capex Largely Debt Funded.** AEP's 2021-2023 capex plan is 18% larger than the previous three-year plan, and will result in a 7.4% average annual rate base growth from 2019. Over recent years, the company has increasingly debt financed its capex leading to higher leverage. As of TTM June 30, 2021, cash from operations financed only 50% of capex. On a positive note, AEP's capex is almost exclusively geared to expanding the regulated rate



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base, with 43% planned for transmission assets, the majority of which are regulated by FERC. Management expects that nearly 70% of the company's capital plan will be recoverable under reduced lag mechanisms. Fitch estimates AEP's parent-level debt will account for approximately 20%-25% of AEP's total debt load over the forecast period, versus 25%-30% at its most of its peers.

**Balanced Regulatory Construct:** Fitch views the state regulatory constructs within AEP's 11-state (soon to be 10 state) service territory as balanced. Authorized state ROEs are close to the industry average in most jurisdictions and include provisions to mitigate commodity and environmental regulation risks. AEP's transmission entities, most of which are subsidiaries of AEP Transco, operate under a tariff approved by the FERC. The FERC tariff provides timely recovery of capital and operating costs as well as favorable ROEs (10.35% and 10.50%) and robust capital structures. Fitch expects consolidated earned ROE, which was 9.0% for the LTM ended June 30, 2021, to average around 9.0% in 2021-2023.

**Improving Asset Base:** As a result of the companies' focus on transmission investment, AEP Transco is currently AEP's second largest subsidiary in terms of equity investment, and is expected to be the largest by the end of the forecast period. Fitch expects that the favorably FERC-regulated entity will account for almost 20% of AEP's consolidated EBITDA, resulting in a lower risk profile for the combined company. Additionally, the company plans to continue reducing its reliance on coal-fired generation and increase renewable capacity through construction of rate-based assets and power purchase agreements (PPAs). Hydro, wind, solar and pumped storage generation currently constitutes 19% of the generation capacity, and is expected to increase to almost 52% over the next 10 years.

**Parent-Subsidiary Rating Linkage:** AEP and its regulated subsidiaries have operational, financial and functional ties, resulting in moderate rating linkage. The treasury function is centrally managed and all regulated subsidiaries depend on AEP for short-term liquidity and participate in AEP's money pool. The money pool allows the utilities to manage working capital needs and provides short-term financing. Legal ties are weak, as the parent does not guarantee the debt obligations of its regulated subsidiaries.

AEP and most of its subsidiaries have limitations on capital structure from covenants in the bank credit agreement (debt/total capitalization that does not exceed 67.5%), and from regulatory requirements to maintain a specific equity ratio. No cross-default provisions exist among AEP and its subsidiaries. Due to these linkages, Fitch typically limits the notching difference between AEP and its subsidiaries to one or two notches.

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Fitch applied a bottom-up approach in rating AEP's utility subsidiaries. Regulated subsidiaries are rated lower and/or higher than AEP, reflecting the strength of their balance sheets, quality of their service areas, and the constructiveness of their regulatory environments. Fitch rates AEP on a consolidated basis. Fitch expects AEP will adjust dividends from subsidiaries as needed and/or inject equity into subsidiaries to maintain regulatory capital structures and support credit metrics. Fitch applies a one-notch uplift to Kentucky Power Company's (BBB/Stable) ratings as a reflection of the implied support from the stronger parent company. Fitch expects that APUC will continue to support KPCo in a manner that will be consistent with the subsidiary's current 'BBB'.

Kentucky Power Co.

**KPSC Merger Process:** The sale of KPCo will require approval by the KPSC, which is expected to take up to 120 days once the case is filed. Fitch does not anticipate that merger conditions will be onerous. The KPSC will evaluate if the acquiror has the financial, technical, and managerial abilities to operate KPCo, and that the merger is consistent with the public interest. The KPSC commenced an investigation of KPCo on Sept. 15, 2021, likely in anticipation of the sale of the entity. Previously, the commission had expressed concern about spending for transmission and Mitchell environmental capex. Lower capex spending would benefit KPCo's credit metrics.

**Constructive Regulatory Environment:** Absent the KPSC's prior stated concerns about KPCo's capex spending, Fitch views the regulatory compact in Kentucky as generally constructive. A variety of cost recovery mechanisms, including fuel, purchased power, environmental compliance and infrastructure replacement clauses are in place that mitigate the impact of regulatory lag. On Jan. 13, 2021, the KPSC granted KPCo a revenue increase of \$52.4 million effective Jan. 14, 2021. The rate increase was based on a 9.30% ROE and 43.25% equity capitalization and a March 31, 2020 test year.

**Challenged Service Territory:** KPCo's service area is primarily driven by coal mining, which has seen significant contraction in recent years. KPCo's residential customer count has declined about 6% over the last decade, while large commercial and industrial customer numbers have declined almost 20%. Growth in oil and gas extraction mitigates some of the effects of the secular decline in the coal industry. However, Fitch remains concerned that lower sales volumes will continue to pressure metrics and earned returns in the medium term.

**Weaker Credit Metrics:** KPCo's credit metrics have weakened significantly over the past couple years due to capex, a prior rate freeze, effects of the coronavirus, and continued

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service territory weakness. KPCo has been a perennially under earning asset, with 5.9% earned ROE as of TTM June 30, 2021 compared to 9.0% for AEP consolidated. Fitch expects that new ownership will likely trim KPCo's capex budget, which was \$579 million in 2021-2023, a 5% increase from the prior three years. Additionally, KPCo's FFO leverage is expected to improve in 2023 with the expiration of Rockport PPA.

## **DERIVATION SUMMARY**

AEP's business mix compares favorably with other large multistate utility holding companies, given the company's improved risk profile after its 2017 merchant fossil generation exit. Over the forecast period, AEP is expected to derive approximately 90% of its EBITDA from regulated assets, compared with 100% at Xcel Energy Inc. (XEL: BBB+/Stable), 86% at Southern Company (SO; BBB+/Stable) and 85%-90% at Dominion Energy, Inc. (DEI: BBB+/Stable). However, AEP's consolidated credit metrics are weaker, owing to significant capex. Fitch expects AEP's FFO leverage to average around 5.4x over the forecast period, which is weaker than Xcel, SO, and DEI.

Fitch expects Xcel's FFO leverage to be 5.0x over the forecast period, SO's consolidated FFO leverage to average 5.0x through the forecast, and DEI's consolidated FFO leverage to be 5.0x. AEP is unique among the large multistate entities for its limited parent-level debt. Fitch currently estimates AEP parent-level debt will account for approximately 20%-25% of AEP's total debt load over the forecast period, this is lower than the 25%-35% at its peers.

## **KEY ASSUMPTIONS**

Fitch's Key Assumptions Within The Rating Case for the Issuer:

- Consolidated capital expenditures of \$22.3 billion over 2021-2023;
- Sale of KPCo completed 2Q22, after tax proceeds of \$1.45 billion used to offset equity needs;
- Common dividends of \$1.4 billion in 2021, \$1.5 billion in 2022, \$1.5 billion in 2023 as per managements publicly stated forecast;
- Equity Issuances of \$100 million in 2023 as per managements publicly stated forecast;
- Conversion of \$805 million equity units in 2022 and \$850 million equity units in 2023;

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--Rate case filings or resolutions there of over the forecast period in Arkansas, Ohio, Oklahoma and Texas.

## **RATING SENSITIVITIES**

American Electric Power

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Sustained FFO leverage at or below 5.0x;
- Continued balanced jurisdictional rate regulation across AEP's service territory;
- Continued strategic focus on relatively low risk utility and transmission businesses.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- Sustained FFO leverage exceeding 5.5x on a sustained basis;
- Renewed emphasis on non-regulated or uncontracted investments;
- Significant unexpected regulatory developments at any of the regulated operating companies.

Kentucky Power

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Sustained FFO leverage at or below 4.5x;
- Continued balanced jurisdictional rate regulation.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- Sustained FFO leverage exceeding 5.5x on a sustained basis;
- Unexpected regulatory development.

## **BEST/WORST CASE RATING SCENARIO**

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International scale credit ratings of Non-Financial Corporate issuers have a best-case rating upgrade scenario (defined as the 99th percentile of rating transitions, measured in a positive direction) of three notches over a three-year rating horizon; and a worst-case rating downgrade scenario (defined as the 99th percentile of rating transitions, measured in a negative direction) of four notches over three years. The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Best- and worst-case scenario credit ratings are based on historical performance. For more information about the methodology used to determine sector-specific best- and worst-case scenario credit ratings, visit <https://www.fitchratings.com/site/re/10111579>.

## **LIQUIDITY AND DEBT STRUCTURE**

AEP has a \$4.0 billion committed revolving credit facility maturing in March 2026 and a \$1 billion committed facility maturing in March 2023, both of which serve as a backstop for AEP's CP program and LOC. AEP must maintain a ratio of debt/total capitalization that does not exceed 67.5%, under the covenants to its credit agreement. This contractually-defined percentage was 59.3% as of Sept. 30, 2021. As of Sept. 30, 2021, AEP had \$3.746 billion available on its revolving credit facility (giving effect for CP issuance) and cash of \$1.373 billion.

AEP has parent level corporate maturities as follows: \$400 million in 2021, \$1.605 billion in 2022, and \$1.900 billion in 2023, \$300 million in 2024. AEP has \$805 million of equity units issued in 2019 and \$850 million issued in 2020 for which Fitch does not give equity credit. The notes are expected to be remarketed in 2022 and 2023, respectively, at which time the interest rate will reset at the then current market rate and forward equity purchase contract associated with the units will be settled with the issuance of equity. If either remarketing is unsuccessful, investors have the right to put their notes to AEP at a price equal to the principal. Fitch assumes successful remarketings for the equity units.

AEP's regulated subsidiaries use a pool of corporate borrowing to meet short-term funding needs. The money pool operates according to regulators' approved terms and conditions, and includes maximum authorized borrowing limits for individual companies.

## **ISSUER PROFILE**

AEP is a utility holding company of regulated electric utility subsidiaries serving portions of Arkansas, Indiana, Kentucky, Louisiana, Michigan, Ohio, Oklahoma, Tennessee, Texas, Virginia and West Virginia. Additionally, the company has significant investments in FERC regulated transmission assets.

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## SUMMARY OF FINANCIAL ADJUSTMENTS

As of Dec. 31, 2020, Fitch has made the following adjustments:

--\$716 million of securitized debt has been removed from Fitch's AEP consolidated debt calculation;

## REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

### RATING ACTIONS

ENTITY/DEBT	RATING			PRIOR
American Electric Power Company, Inc.	LT IDR	BBB Rating Outlook Stable	Downgrade	BBB+ Rating Outlook Negative
	ST IDR	F3	Downgrade	F2
● senior unsecured	LT	BBB	Downgrade	BBB+
● senior unsecured	ST	F3	Downgrade	F2
Kentucky Power Company	LT IDR	BBB Rating Outlook Stable	Affirmed	BBB Rating Outlook Stable

[VIEW ADDITIONAL RATING DETAILS](#)

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**APPLICABLE CRITERIA**

- [Parent and Subsidiary Linkage Rating Criteria \(pub. 26 Aug 2020\)](#)
- [Corporate Hybrids Treatment and Notching Criteria \(pub. 12 Nov 2020\)](#)
- [Corporates Recovery Ratings and Instrument Ratings Criteria \(pub. 09 Apr 2021\) \(including rating assumption sensitivity\)](#)
- [Corporate Rating Criteria \(pub. 15 Oct 2021\) \(including rating assumption sensitivity\)](#)

**APPLICABLE MODELS**

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Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

Corporate Monitoring & Forecasting Model (COMFORT Model), v7.9.0 (1)

## **ADDITIONAL DISCLOSURES**

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American Electric Power Company, Inc.  
Kentucky Power Company

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## **SOLICITATION STATUS**

10/28/21, 11:31 AM

Fitch Downgrades AEP's L-T IDR to 'BBB' and S-T IDR to 'F3'; Affirms Kentucky Power

The ratings above were solicited and assigned or maintained by Fitch at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

## ENDORSEMENT POLICY

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Corporate Finance   Utilities and Power   North America   United States

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American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_41** Provide a list of and describe all insurance policies and/or coverage provided by all “captive insurers” obtained by AEP and/or AEPSC to insure or reinsure the Company’s risk exposures. Confirm that each of the policies/coverages will cease on or before the closing. Provide the annual cost to the Company for each such policy/coverage. Provide a list of and describe the insurance policies/coverage that will be obtained by Liberty for each of the Company’s risk exposures and the forecast annual cost to the Company for each such policy/coverage.

**RESPONSE**

Please see JA\_R\_KIUC\_2\_41\_Attachment1.xlsx for the list and description of all insurance policies and/or coverage provided by all “captive insurers” obtained by AEP and/or AEPSC to insure or reinsure the Company’s risk exposures and Kentucky Power's annual premium for each.

It is confirmed that the current coverages will cease at closing and Liberty will add Kentucky Power Company to its existing policies upon close. Liberty does not yet have quotes from its insurers for this coverage. Insurance policies currently in place will respond as normal for incidents prior to closing.

Witness: Stephan T. Haynes

Witness: Peter Eichler

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_42** Provide the per books common equity for the Company and the Kentucky Transco at December 31, 2021.

**RESPONSE**

The Joint Applicants object to this request on the basis that it seeks information that is outside the scope of this proceeding and that is neither relevant to this proceeding or calculated to lead to the discovery of admissible evidence. In support of this objection the Joint Applicants state that information concerning Kentucky Transco is not relevant to this proceeding as the transfer of Kentucky Transco is not at issue in this proceeding. Based on the preliminary, unaudited balance sheets, the common equity amount for Kentucky Power is \$874,355,328.

Witness: Stephan T. Haynes

American Electric Power Company, Inc.  
Kentucky Power Company  
Liberty Utilities Co.  
KPSC Case No. 2021-00481  
KIUC's Second Set of Data Requests  
Dated February 4, 2022

**DATA REQUEST**

**KIUC 2\_43** Please provide the most recent monthly bill for the Unit Power sale from Rockport Units 1 and 2.

**RESPONSE**

Please see JA\_R\_KIUC\_2\_43\_Attachment1.xlsx for the requested information.

Witness: Brian K. West