# American Electric Power 

1 Riverside Plaza
Columbus, OH 43215
AEP.com

December 29, 2015

Honorable Kimberly D Bose<br>Secretary<br>Federal Energy Regulatory Commission<br>888 First St., N.E.<br>Washington D.C. 20426

Re: American Electric Power Service Corporation
Docket No. ER16-646-000

Dear Secretary Bose:
Pursuant to Section 205 of the Federal Power Act, 16 U.S.C. Section 824(d), and Section 35.13 of the Federal Energy Regulatory Commission's ("FERC" or "Commission") regulations, American Electric Power Service Corporation ("AEPSC"), on behalf of its affiliates, Appalachian Power Company ("APCo"), Indiana Michigan Power Company ("I\&M"), Kentucky Power Company ("KPCo"), Kingsport Power Company ("KgPCo"), Ohio Power Company ("OPCo"), and Wheeling Power Company ("WPCo"), (collectively referred to herein as "AEP East Operating Companies"), and on behalf of its subsidiaries AEP Appalachian Transmission Company Inc. ("APTCo"), AEP Indiana Michigan Transmission Company Inc. ("IMTCo"), AEP Kentucky Transmission Company Inc. ("KTCo"), AEP Ohio Transmission Company Inc. ("OHTCo"), and AEP West Virginia Transmission Company Inc ("WVTCo"). (collectively the "AEP East Transmission Companies") (AEPSC, the AEP East Operating Companies, and the AEP East Transmission Companies are collectively referred to herein as "AEP") submits for filing updated depreciation rates for APCo, WPCo, KPCo, WVTCo, KTCo and OHTCo approved by the Public Service Commission of West Virginia ("PSCWV") and the Kentucky Public Service Commission ("KPSC"), which will be reflected in the formula rate of the AEP Operating Companies, Attachment H-14 of the PJM Interconnection, L.L.C. ("PJM") Open Access Transmission Tariff ("PJM Tariff") and in the formula rate of the AEP East Transmission Companies, Attachment H-20A of the PJM Tariff. ${ }^{1}$

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## I. Background

In Docket No. ER08-1329, AEP submitted for filing a formula rate and implementation protocols for the AEP pricing zone under Attachment H-14 of the PJM Tariff. The Commission accepted AEP's rate filing subject to hearing and settlement judge procedures and a compliance filing. ${ }^{2}$ AEP and the intervening parties in Docket No. ER08-1329 ultimately settled all issues raised with respect to the formula rate, and the settlement ("Attachment H-14 Settlement") was approved by the Commission on October 1, 2010. ${ }^{3}$

Attachment H-14 contains a formula rate for transmission service over the facilities of the AEP East Operating Companies, which is updated annually. As explained in the Attachment H-14 Formula Rate Implementation Protocols, the depreciation rates are "stated values to be used in the rate formula until changed pursuant to an FPA Section 205 or 206 filing." ${ }^{4}$ Those stated values are found in Attachment H14B, Worksheet P. Appendix A to Attachment H-14 (Cost of Service and Formula Rate Settlement Principles) further provides that "AEP will make a Section 205 filing at FERC . . . to reflect in the formula rate calculations any change in state commission-approved or FERC- approved depreciation rates."

In Docket No. ER10-355, AEP submitted for filing a formula rate and implementation protocols under Attachment H-20 of the PJM Tariff. AEP and the intervening parties in Docket No. ER10-355 ultimately settled all issues raised with respect to the formula rate, and the settlement ("Attachment H-20 Settlement") was approved by the Commission on April 21, 2011. ${ }^{5}$

Attachment H-20A contains a formula rate for transmission service over the facilities of the AEP East Transmission Companies, which is updated annually. As explained in Appendix A to Attachment H-20A Formula Rate Settlement Principles, "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." As stated in the settlement, "the Settling Parties have agreed that the formula rate would use AEP's composite depreciation rates which are based on state commission-approved and FERC-approved depreciation rates."

2 See American Electric Power Service Corp., 124 FERC बा 61,306 (2008).
3 See American Electric Power Service Corp., 133 FERC $\mathbb{1}$ 61,007 (2010). On March 14, 2012, in Docket No. ER12-1255 AEP filed amendments to Attachment H-14 to reflect an internal corporate reorganization under which Columbus Southern Power Company merged into Ohio Power Company. The Commission accepted the amendments by letter order. See PJM Interconnection, L.L.C. and American Electric Power Service Corp., Docket No. ER12-1255, Letter Order (May 3, 2012).
$4 \quad$ Attachment H-14 Formula Rate Implementation Protocols, Section 1(g)(i).
5 See AEP Appalachian Transmission Company, Inc., 135 FERC ๆ 61,066 (2011).

## II. Description of Proposed Changes

Due to recent orders by the PSCWV and the KPSC, the depreciation rates included in Attachment H-14 for APCo, WPCo, and KPCo are now outdated. Additionally, these orders trigger the need to update the depreciation rates included in Attachment H-20 for WVTCo, KTCo, and OHTCo. Descriptions of the proposed changes and underlying orders for each company are provided below.

## APCo \& WPCo

The depreciation rates for APCo and WPCo that generate the book expense included in the formula rate calculation approved as part of the Attachment H-14 Settlement were set in 2007. APCo's and WPCo's depreciation rates recently changed as a result of the Order by the PSCWV in Case No. 14-1151-E-D.. The Depreciation Study Report and PSCWV order approving the underlying depreciation rates can be viewed at the following links:

Depreciation Study Report:
http://www.psc.state.wv.us/scripts/WebDocket/ViewDocument.cfm?CaseActivityID=400 623\&NotType=\%27WebDocket\%27

PSCWV Final Order in Case No. 14-1151-E-D:
http://www.psc.state.wv.us/scripts/WebDocket/ViewDocument.cfm?CaseActivityID=425 588\&NotType=\%27WebDocket\%27

Consistent with Appendix A to Attachment H-14A of the PJM OATT, AEP seeks Commission authorization to update the depreciation rate inputs in its existing formula rate to reflect the new state-approved depreciation rates for APCo and WPCo. The updated depreciation rates are set forth in Attachment A to this transmittal letter and reflected in revised Worksheet - P - "Calculation of Total Weighted Average Depreciation Rates for Transmission Plant Property Account Effective as of 06/01/2015 for Multiple Jurisdiction Companies Appalachian Power Company" and "Transmission Depreciation Rates Effective 06/01/2015 for Single Jurisdiction Companies Wheeling Power Company." The changes in depreciation rates will result in increased annual transmission depreciation expenses for APCo and WPCo. For APCo, the depreciation rates for Transmission plant increased due to an increase in the net salvage ratio for account 352 and decreases in the average service life for four accounts (accounts 354, 356, 357 and 358). The increase was partially offset by a decrease in the net salvage ratio for account 356 and increases in the average service life for three accounts (accounts 352, 353 and 355). For WPCo the depreciation rates for Transmission plant decreased from $2.70 \%$ to $1.84 \%$. Since the average service lives and net salvage values which are the bases for the current depreciation rates were not available at the time of the depreciation study, an analysis of the causes of the change in the depreciation rate was not performed.The annualized effect of the change in depreciation rates can be seen in the

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summaries of prior and new depreciation rates contained in Attachment A, pages 1
through 5

## KPCo

The depreciation rates for KPCo that generate the book expense included in the formula rate calculation approved as part of the Attachment H-14 Settlement were set in 2007. KPCo's depreciation rates recently changed as a result of the Order by the KPSC in Case No. 2014-00396. The Depreciation Study Report and KPSC order approving the underlying depreciation rates can be viewed at the following links:

Depreciation Study Report:
http://psc.ky.gov/pscecf/2014-00396/slsharp\%40aep.com/12232014121058/Section_III__Testimony.pdf - (Exhibit DAD-2)

KPSC Final Order in Case No. 2014-00396:
http://psc.ky.gov/pscscf/2014\ Cases/2014-00396//20150720_PSC_ORDER.pdf
Consistent with Appendix A to Attachment H-14A of the PJM OATT, AEP seeks Commission authorization to update the depreciation rate inputs in its existing formula rate to reflect the new state-approved depreciation rates for APCo and WPCo. The updated depreciation rates are set forth in Attachment A to this transmittal letter and reflected in a revised Worksheet - P - "Transmission Depreciation Rates Effective as of 07/1/2015 for Single Jurisdiction Companies Kentucky Power Company." The changes in depreciation rates will result in increased annual transmission depreciation expenses for KPCo. The depreciation rates for Transmission plant increased from 1.71\% to 2.66\% due to increases in the net salvage ratio for five accounts (accounts 352, 353, 354, 355 and 356) and decreases in the average service life for two accounts (accounts 354, and 355). The increase was partially offset by an increase in the average service life for account 352. The annualized effect of the change in depreciation rates can be seen in the summaries of prior and new depreciation rates contained in Attachment A, page 6.

## WVTCo, KTCo, and OHTCo

As previously noted, the formula rate for the AEP East Transmission Companies utilizes AEP's composite depreciation rates, which are based on state commissionapproved and FERC-approved depreciation rates. Consequently, any updates to the depreciation rates for the AEP East Operating Companies trigger corresponding updates to the AEP East Transmission Companies. Therefore, AEP also proposes updated depreciation rates for the AEP East Transmission Companies, which are based on the new state-approved depreciation rates for APCo, WPCo, and KPCo. These new depreciation rates are set forth in Attachment B to this transmittal letter and reflected in a revised Appendix A.1.2 of Attachmnet H20A of the PJM OATT.

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## III. Effective Date

AEP seeks approval to update the data inputs regarding depreciation rates in its formula rate to reflect the new state approved depreciation rates effective as of July 1, 2016. While implementation of AEP's request will result in an overall depreciation rate and expense increase, AEP notes that the inclusion of accurate depreciation rates based on state and FERC approvals was an agreed-upon aspect of both the Attachment $\mathrm{H}-14$ and Attachment $\mathrm{H}-20$ Settlements. Therefore, the request in this filing relates to the implementation of the formula rates as originally approved and is not a change to the design of the formula rates themselves. AEP further clarifies that it is not seeking a change in the manner in which the composite depreciation rate is calculated.

## IV. Contents of this Filing

This filing consists of the following documents:
a. This transmittal letter;
b. A spreadsheet setting forth prior and revised state approved depreciation rates and twelve months ending October 31, 2015 for annualized depreciation expense for AEP East Companies (Attachment A, Pages 1-5);
c. A spreadsheet setting forth prior and revised state approved depreciation rates and twelve months ending October 31, 2015 annualized depreciation expense for AEP East Transmission Companies (Attachment B, Pages 1$3)$;
d. Revised Attachment H-14B and Attachment H-20A, Appendix A.1.2 tariff sheet in clean form (Attachment C); and
f. Revised Attachment H-14B and Attachment H-20A, Appendix A.1.2 tariff sheet in marked form (Attachment D).

Pursuant to Section 35.7 of the Commission's regulations, the contents of this filing are being submitted as part of an XML filing package that conforms to the Commission's eTariff instructions.

## V. Service

PJM has served a copy of this filing on all PJM Members and on all state utility regulatory commissions in the PJM Region by posting this filing electronically. In accordance with the Commission's regulations, ${ }^{6}$ PJM will post a copy of this filing to the FERC filings section of its internet site, located at the following link:

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http://www.pjm.com/documents/ferc-manuals/ferc-filings.aspx with a specific link to the newly-filed document, and will send an e-mail on the same date as this filing to all PJM Members and all state utility regulatory commissions in the PJM Region ${ }^{7}$ alerting them that this filing has been made by PJM and is available by following such link. If the document is not immediately available by using the referenced link, the document will be available through the referenced link within 24 hours of the filing. Also, a copy of this filing will be available on the Commission's eLibrary website located at the following link: http://www.ferc.gov/docs-filing/elibrary.asp in accordance with the Commission's regulations and Order No. 714.

Additionally, copies of this filing are also being made available on AEP's website at:
http://www.aep.com/about/codeofconduct/OASIS/TariffFilings/

## VI. Correspondence

Correspondence relating to this filing should be addressed to:

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## VII. Conclusion

Wherefore, AEP respectfully requests that the Commission accept these revised tariff sheets, effective July 1, 2016 for the AEP East Operating Companies and the AEP East Transmission Companies, and grant any applicable waivers.

Respectfully submitted,
/s/ Amanda R. Conner
Amanda R. Conner
Senior Counsel
American Electric Power Service
Corporation

## Attachment A

## Spreadsheet setting forth

 prior and revised state approved depreciation rates, and twelve months annualized depreciation expense for AEP East Companies
# APPALACHIAN POWER COMPANY <br> Worksheet - P CALCULATION OF ANNUALIZED DEPRECIATION EXPENSE <br> FOR TRANSMISSION PLANT PROPERTY ACCOUNT Using Current and Prior Depreciation Rates by Account and Plant Balance <br> Twelve Months Ended October 31, 2015 

|  |  | Original Cost 10/31/2015 | Current <br> Rates (1) | Current Annual Dep Expense | Prior <br> Rates (2) | Prior Annual Dep Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANSMISSION PLANT |  |  |  |  |  |  |
| Land Improvements | 350.1 | 105,084,795.38 | 0.66\% | 693,559.65 | 0.66\% | 693,559.65 |
| Energy Storage Equipment | 351.0 | 3,054,157.23 | 6.67\% | 203,712.29 | 0.00\% | - |
| Structures \& Improvements | 352.0 | 46,776,533.27 | 1.60\% | 748,424.53 | 1.62\% | 757,779.84 |
| Station Equipment | 353.0 | 868,316,105.78 | 1.86\% | 16,150,679.57 | 1.98\% | 17,192,658.89 |
| Towers \& Fixtures | 354.0 | 420,334,636.03 | 1.41\% | 5,926,718.37 | 1.25\% | 5,254,182.95 |
| Poles \& Fixtures | 355.0 | 262,038,812.91 | 2.66\% | 6,970,232.42 | 2.71\% | 7,101,251.83 |
| Overhead Conductors | 356.0 | 499,418,137.64 | 1.19\% | 5,943,075.84 | 1.13\% | 5,643,424.96 |
| Underground Conduit | 357.0 | 255,431.13 | 1.41\% | 3,601.58 | 1.33\% | 3,397.23 |
| Underground Conductors | 358.0 | 7,223,822.42 | 4.86\% | 351,077.77 | 3.08\% | 222,493.73 |
|  |  | 2,212,502,431.79 |  | 36,991,082.01 |  | 36,868,749.08 |

(1) See Worksheet - P Calculation of Total Weighted Average Depreciation Raes for Transmission Plant Property Account Effective as of June 1, 2015 (current rates) for multiple Jurisdiction Companies - Appalachian Power Company.
(2) See Worksheet - P Calculation of Total Weighted Average Depreciation Raes for Transmission Plant Property Account Effective as of February 1, 2012 (prior rates) for multiple Jurisdiction Companies - Appalachian Power Company.

## AEP EAST COMPANIES

## Worksheet - P CALCULATION OF

OTAL WEIGHTED AVERAGE DEPRECIATION RATES
FOR TRANSMISSION PLANT PROPERTY ACCOUNT
EFFECTIVE AS OF J une 1, 2015 [CURRENT RATES]
FOR MULTIPLE J URISDICTION COMPANIE
APPALACHIAN POWER COMPANY

|  | VIRGINIA |  |  |  | WEST VIRGINIA |  |  | FERC Wholesale |  |  | FERC KINGSPORT |  |  | COMPANY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \text { PLANT } \\ & \text { ACCT. } \end{aligned}$ | $\begin{gathered} \hline \text { (1) } \\ \text { VA SCC } \\ \text { RATES } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { ALLOCATION } \\ & \text { FACTOR } \\ & \hline \end{aligned}$ | WTD AVG. DEPREC. RATE | $\begin{gathered} \hline(2) \\ \text { PSC OF WV } \\ \text { APPROVED } \\ \text { RATES } \\ \hline \end{gathered}$ | AllOCATION FACTOR | WTD AVG. DEPREC. RATE | $\begin{gathered} \text { (3) } \\ \text { FERC } \\ \text { RATES } \end{gathered}$ | $\begin{aligned} & \text { ALLOCATION } \\ & \text { FACTOR } \\ & \hline \end{aligned}$ | WTD AVG. DEPREC. RATE | $\begin{gathered} \hline(4) \\ \text { FERC } \\ \text { RATES } \\ \hline \end{gathered}$ | $\begin{aligned} & \text { ALLOCATION } \\ & \text { FACTOR } \\ & \hline \end{aligned}$ | WTD AVG. DEPREC. RATE | WTD AVG. DEPREC. RATE |
| TRANSMISSION PLANT (5) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Land Improvements (VA) | 350.1 | 0.66\% | 1.000000 | 0.66\% |  |  |  |  |  |  |  |  |  | 0.66\% |
| Energy Storage Equipment (WV) | 351.0 |  |  |  | 6.67\% | 1.000000 | 6.67\% |  |  |  |  |  |  | 6.67\% |
| Structures \& Improvements | 352.0 | 1.55\% | 0.469583 | 0.73\% | 1.52\% | 0.437847 | 0.67\% | 2.19\% | 0.036426 | 0.08\% | 2.19\% | 0.056144 | 0.12\% | 1.60\% |
| Station Equipment | 353.0 | 1.95\% | 0.469583 | 0.92\% | 1.68\% | 0.437847 | 0.74\% | 2.19\% | 0.036426 | 0.08\% | 2.19\% | 0.056144 | 0.12\% | 1.86\% |
| Towers \& Fixtures | 354.0 | 1.14\% | 0.469583 | 0.54\% | 1.54\% | 0.437847 | 0.67\% | 2.19\% | 0.036426 | 0.08\% | 2.19\% | 0.056144 | 0.12\% | 1.41\% |
| Poles \& Fixtures | 355.0 | 2.77\% | 0.469583 | 1.30\% | 2.64\% | 0.437847 | 1.16\% | 2.19\% | 0.036426 | 0.08\% | 2.19\% | 0.056144 | 0.12\% | 2.66\% |
| Overhead Conductors | 356.0 | 1.01\% | 0.469583 | 0.47\% | 1.19\% | 0.437847 | 0.52\% | 2.19\% | 0.036426 | 0.08\% | 2.19\% | 0.056144 | 0.12\% | 1.19\% |
| Underground Conduit | 357.0 | 1.23\% | 0.469583 | 0.58\% | 1.45\% | 0.437847 | 0.63\% | 2.19\% | 0.036426 | 0.08\% | 2.19\% | 0.056144 | 0.12\% | 1.41\% |
| Underground Conductors | 358.0 | 3.18\% | 0.469583 | 1.49\% | 7.23\% | 0.437847 | 3.17\% | 2.19\% | 0.036426 | 0.08\% | 2.19\% | 0.056144 | 0.12\% | 4.86\% |

(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 May 26, 2015 in Case No. 14-1151-E-D effective June 1, 2015
(3) Approved by FERC March 2, 1990 in Docket ER90-132
(4) Approved by FERC March 2, 1990 in Docket ER90-133
(5) Transmission allocation factors are changed annually in January based on September factors as per the PJM tariff approved in FERC Docket ER08-1329 Attachment H-14B, Part II, pg. 15 of 21
(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 jurisdictions' rate is multiplied by an allocatio
factor, and the product for each jurisdiction is added with the other jurisdictions to derive the composite rate for the company
Per the terms of the settlement in this case, 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

## Worksheet - P CALCULATION OF

TOTAL WEIGHTED AVERAGE DEPRECIATION RATES
FOR TRANSMISSION PLANT PROPERTY ACCOUNT
EFFECTIVE AS OF February 1, 2012 [PRIOR RATES
FOR MULTIPLE J URISDICTION COMPANIES
APPALACHIAN POWER COMPANY

|  | VIRGINIA |  |  |  | NEST VIRGINIA |  |  | FERC WHOLESALE |  |  | FERC KINGSPORT |  |  | OMPANY |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | (1) |  |  |  | (2) |  |  | (3) |  |  | (4) |  |  | WTD AVG DEPREC RATE |
|  | $\begin{aligned} & \text { PLANT } \\ & \text { ACCT. } \end{aligned}$ | $\begin{aligned} & \text { VA SCC } \\ & \text { SATES } \end{aligned}$ | ALLOCATION FACTOR (5) | WTD AVG DEPREC. RATE | $\begin{gathered} \text { PSC OF WV } \\ \text { APPROVED } \\ \text { RATES } \end{gathered}$ | ALLOCATION FACTOR (5) | WTD AVG. DEPREC. RATE | $\begin{gathered} \text { FERC } \\ \text { RATES } \end{gathered}$ | ALLOCATION FACTOR (5) | WTD AVG DEPREC. RATE | $\begin{aligned} & \text { FERC } \\ & \text { RATES } \end{aligned}$ | ALLOCATION FACTOR (5) | WTD AVG DEPREC RATE |  |
| TRANSMISSION PLANT (6) |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Land Improvements (VA) | 350.1 | 0.66\% | 1.000000 | 0.66\% |  |  |  |  |  |  |  |  |  | 0.66\% |
| Structures \& Improvements | 352.0 | 1.55\% | 0.455791 | 0.71\% | 1.55\% | 0.444609 | 0.69\% | 2.19\% | 0.039062 | 0.09\% | 2.19\% | 0.060538 | 0.13\% | 1.62\% |
| Station Equipment | 353.0 | 1.95\% | 0.455791 | 0.89\% | 1.95\% | 0.444609 | 0.87\% | 2.19\% | 0.039062 | 0.09\% | 2.19\% | 0.060538 | 0.13\% | 1.98\% |
| Towers \& Fixtures | 354.0 | 1.14\% | 0.455791 | 0.52\% | 1.14\% | 0.444609 | 0.51\% | 2.19\% | 0.039062 | 0.09\% | 2.19\% | 0.060538 | 0.13\% | 1.25\% |
| Poles \& Fixtures | 355.0 | 2.77\% | 0.455791 | 1.26\% | 2.77\% | 0.444609 | 1.23\% | 2.19\% | 0.039062 | 0.09\% | 2.19\% | 0.060538 | 0.13\% | 2.71\% |
| Overhead Conductors | 356.0 | 1.01\% | 0.455791 | 0.46\% | 1.01\% | 0.444609 | 0.45\% | 2.19\% | 0.039062 | 0.09\% | 2.19\% | 0.060538 | 0.13\% | 1.13\% |
| Underground Conduit | 357.0 | 1.23\% | 0.455791 | 0.56\% | 1.24\% | 0.444609 | 0.55\% | 2.19\% | 0.039062 | 0.09\% | 2.19\% | 0.060538 | 0.13\% | 1.33\% |
| Underground Conductors | 358.0 | 3.18\% | 0.455791 | 1.45\% | 3.18\% | 0.444609 | 1.41\% | 2.19\% | 0.039062 | 0.09\% | 2.19\% | 0.060538 | 0.13\% | 3.08\% |

(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 July 26, 2006 in Case No. 05-1278-E-PC-PW-42T effective July 1, 2006.
(3) Approved by FERC March 2, 1990 in Docket ER90-132
(4) Approved by FERC March 2, 1990 in Docket ER90-133
(5) Allocation Factors updated by Regulated Pricing \& Analysis in July 2010.
(6) Transmission allocation factors are changed annually in January based on September factors as per the PJM tariff approved in FERC Docket ER08-1329 Attachment H-14B, Part II, pg. 15 of 21 .

## 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 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.
Per the terms of the settlement in this a state companies changes. Changes in the allocation factors will not necessitate a 205 filing.

# WHEELING POWER COMPANY <br> Worksheet - P CALCULATION OF ANNUALIZED DEPRECIATION EXPENSE FOR TRANSMISSION PLANT PROPERTY ACCOUNT Using Current and Prior Depreciation Rates by Account and Plant Balance <br> Twelve Months Ended October 31, 2015 

|  |  | Original Cost 10/31/2015 | Current <br> Rates (1) | Current <br> Annual Dep Expense | Prior <br> Rates (2) | Prior Annual Dep Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANSMISSION PLANT |  |  |  |  |  |  |
| Structures \& Improvements | 352.0 | 767,826.95 | 0.69\% | 5,298.01 | 2.70\% | 20,731.33 |
| Station Equipment | 353.0 | 54,597,632.95 | 1.70\% | 928,159.76 | 2.70\% | 1,474,136.09 |
| Towers \& Fixtures | 354.0 | 5,234,981.50 | 0.04\% | 2,093.99 | 2.70\% | 141,344.50 |
| Poles \& Fixtures | 355.0 | 42,325,117.56 | 2.65\% | 1,121,615.62 | 2.70\% | 1,142,778.17 |
| Overhead Conductors | 356.0 | 21,120,016.17 | 1.12\% | 236,544.18 | 2.70\% | 570,240.44 |
| Underground Conduit | 357.0 | 10,982.00 | 2.00\% | 219.64 | 2.70\% | 296.51 |
| Underground Conductors | 358.0 | 76,937.00 | 5.00\% | 3,846.85 | 2.70\% | 2,077.30 |
|  |  | 124,133,494.13 |  | 2,297,778.05 |  | 3,351,604.34 |

(1) Approved by PSC of WV Order dated May 26, 2015 in Case No. 14-1151-E-D effective June 1, 2015.
(2) Approved by PSC of WV Order in Case No. PSC 90-243-E-42T.

# KENTUCKY POWER COMPANY <br> Worksheet - P CALCULATION OF ANNUALIZED DEPRECIATION EXPENSE FOR TRANSMISSION PLANT PROPERTY ACCOUNT Using Current and Prior Depreciation Rates by Account and Plant Balance <br> Twelve Months Ended October 31, 2015 

$\left.\begin{array}{lrrrrr}\text { Original Cost } & \begin{array}{c}\text { Current } \\ \text { Rates (1) }\end{array} & \begin{array}{c}\text { Current } \\ \text { Annual Dep } \\ \text { Expense }\end{array} & \begin{array}{c}\text { Prior } \\ \text { Rates (2) }\end{array} \\ \hline \text { Annual Dep } \\ \text { Expense }\end{array}\right]$

[^2](2) As approved as a part of a settlement agreement in Kentucky Case No. 91-066 on October 28, 1991.

## Attachment B

## Spreadsheet setting forth

 prior and revised state approved depreciation rates, and twelve months ending October 31, 2015 annualized depreciation expense for AEP East Transmission CompaniesAEP WEST VIRGINIA TRANSMISSION COMPANY
Worksheet - P CALCULATION OF ANNUALIZED DEPRECIATION EXPENSE FOR TRANSMISSION PLANT PROPERTY ACCOUNT Using Current and Prior Depreciation Rates by Account and Plant Balance

Twelve Months Ended October 31, 2015

|  |  | Original Cost 10/31/2015 | Current <br> Rates (1) | Current Annual Dep Expense | Prior <br> Rates | Prior <br> Annual Dep Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANSMISSION PLANT |  |  |  |  |  |  |
| Structures \& Improvements | 352.0 | - | 1.52\% | - | 1.55\% | - |
| Station Equipment | 353.0 | 221,725,529.99 | 1.68\% | 3,724,988.90 | 1.95\% | 4,323,647.83 |
| Towers \& Fixtures | 354.0 | 3,338,621.62 | 1.54\% | 51,414.77 | 1.14\% | 38,060.29 |
| Poles \& Fixtures | 355.0 | 10,057,693.22 | 2.64\% | 265,523.10 | 2.77\% | 278,598.10 |
| Overhead Conductors | 356.0 | 7,257,873.94 | 1.19\% | 86,368.70 | 1.01\% | 73,304.53 |
| Underground Conduit | 357.0 | - | 1.45\% | - | 1.23\% | - |
| Underground Conductors | 358.0 | - | 7.23\% | - | 3.18\% | - |
|  |  | 242,379,718.77 |  | 4,128,295.48 |  | 4,713,610.75 |

(1) For AEP West Virginia Transmission Company and AEP Appalachian Transmission Company the formula rates will use the most recently approved depreciation rates in either Virginia or West Virginia. Since depreciation rates were most recently approved by the Public Service Commission of West Virginia Order dated May 26, 2015 in Case No. 14-1151-E-D effective June 1, 2015, the West Virginia rates are used above.

# AEP KENTUCKY TRANSMISSION COMPANY <br> Worksheet - P CALCULATION OF <br> ANNUALIZED DEPRECIATION EXPENSE <br> FOR TRANSMISSION PLANT PROPERTY ACCOUNT Using Current and Prior Depreciation Rates by Account and Plant Balance <br> Twelve Months Ended October 31, 2015 

|  |  | Original Cost 10/31/2015 | Current <br> Rates (1) | Current Annual Dep Expense | Prior <br> Rates | Prior <br> Annual Dep Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANSMISSION PLANT |  |  |  |  |  |  |
| Land Improvements | 350.1 | - | 1.44\% | - | 1.71\% | - |
| Structures \& Improvements | 352.0 | - | 2.08\% | - | 1.71\% | - |
| Station Equipment | 353.0 | 15,570,033.02 | 2.15\% | 334,755.71 | 1.71\% | 266,247.56 |
| Towers \& Fixtures | 354.0 | - - | 2.61\% | - | 1.71\% | - |
| Poles \& Fixtures | 355.0 | - | 3.95\% | - | 1.71\% | - |
| Overhead Conductors | 356.0 | - | 2.91\% | - | 1.71\% | - |
| Underground Conduit | 357.0 | - | 2.99\% | - | 1.71\% | - |
| Underground Conductors | 358.0 | - | 2.62\% | - | 1.71\% | - |
|  |  | 15,570,033.02 |  | 334,755.71 |  | 266,247.56 |

(1) For AEP Kentucky Transmission Company the formula rates will use the most recently approved depreciation rates in Kentucky. The depreciation rates used above are based on the settlement agreement approved by the Kentucky Public Service Commission on June 22, 2015 in Case No. 2014-00396 effective July 1, 2015.

# AEP OHIO TRANSMISSION COMPANY <br> Worksheet - P CALCULATION OF <br> ANNUALIZED DEPRECIATION EXPENSE <br> FOR TRANSMISSION PLANT PROPERTY ACCOUNT Using Current and Prior Depreciation Rates by Account and Plant Balance <br> Twelve Months Ended October 31, 2015 

|  |  | Original Cost 10/31/2015 | Current <br> Rates (1) | Current Annual Dep Expense | Prior <br> Rates | Prior Annual Dep Expense |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TRANSMISSION PLANT |  |  |  |  |  |  |
| Land Improvements | 350.1 | 14,472,783.19 | 1.36\% | 196,829.85 | 1.49\% | 215,644.47 |
| Structures \& Improvements | 352.0 | 1,670,279.45 | 1.64\% | 27,392.58 | 1.53\% | 25,555.28 |
| Station Equipment | 353.0 | 688,610,548.46 | 1.84\% | 12,670,434.09 | 1.78\% | 12,257,267.76 |
| Towers \& Fixtures | 354.0 | 1,798.77 | 1.92\% | 34.54 | 1.48\% | 26.62 |
| Poles \& Fixtures | 355.0 | 299,625,758.13 | 3.01\% | 9,018,735.32 | 2.30\% | 6,891,392.44 |
| Overhead Conductors | 356.0 | 271,842,616.94 | 1.88\% | 5,110,641.20 | 1.42\% | 3,860,165.16 |
| Underground Conduit | 357.0 | 14,980,460.80 | 2.00\% | 299,609.22 | 1.50\% | 224,706.91 |
| Underground Conductors | 358.0 | 17,964,572.41 | 3.80\% | 682,653.75 | 2.22\% | 398,813.51 |
| Trails \& Roads | 359.0 | - | 1.49\% | - | 1.67\% | - |
|  |  | 1,309,168,818.15 |  | 28,006,330.55 |  | 23,873,572.15 |

(1) For AEP Ohio Transmission Company the formula rates are composite rates calculated as the average of the depreciation rates for AEP Appalachian Transmission Company, AEP Indiana Michigan Transmission Company, and AEP Kentucky Transmission Company. For example, the AEP Ohio Transmission Company total depreciation rate for Plant Account 352 is calculated by dividing the sum of $1.52 \%+1.32 \%+2.08 \%$ by 3 which equals $1.64 \%$,

## Attachment C

Revisions to Section(s) of the PJM Open Access Transmission Tariff

## (Clean Format)

# Revisions to Attachment H-14B of the PJM OATT 

## (Clean Format)

# AEP East Companies <br> Cost of Service Formula Rate Using Historic Year FF1 Balances <br> Worksheet G Supporting - Development of Composite State Income Tax Rate COMPANY NAME HERE 

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


[^3]AEP East Companies
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)

| Line <br> No. | Annual Tax Expenses by Type (Note 1) | Total <br> Company | FERC FORM 1 Tie-Back | FERC FORM 1 Reference |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Revenue Taxes |  |  |  |
| 2 | Revenue Tax 1 | - |  |  |
| 3 | Real Estate and Personal Property Taxes |  |  |  |
| 4 | Real and Personal Property - Jurisdiction 1 | - |  |  |
| 5 | Real and Personal Property - Other Jurisdictions | - |  |  |
| 6 | Payroll Taxes |  |  |  |
| 7 | Federal Insurance Contribution (FICA ) | - |  |  |
| 8 | Federal Unemployment Tax | - |  |  |
| 9 | State Unemployment Insurance | - |  |  |
| 10 | Payroll Taxes | - |  |  |
|  |  |  | - |  |
| 11 | $\underline{\text { Production Taxes }}$ |  |  |  |
| 12 | Production Tax 1 | - |  |  |
| 13 | Miscellaneous Taxes |  |  |  |
| 14 | Miscellaneous Tax 1 | - |  |  |
| 15 | Miscellaneous Tax 2 | - |  |  |
| 16 | Miscellaneous Tax 3 | - |  |  |
| 17 | Miscellaneous Tax 4 | - |  |  |
| 18 | Miscellaneous Tax 5 | - |  |  |
| 19 | Miscellaneous Tax 6 | - |  |  |
| 20 | Miscellaneous Tax 7 | - |  |  |
| 21 | Miscellaneous Tax 8 | - |  |  |
| 22 | Total Taxes by Allocable Basis <br> (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.

## AEP East Companies

## Cost of Service Formula Rate Using Historic Year FF1 Balances

Worksheet I Supporting Transmission Plant in Service Additions


## AEP East Companies

Cost of Service Formula Rate Using Historic Year 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 (Projected TCOS, $\ln 164$ )
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 Projected TCOS, lns 162 through164)

| Long Term Debt | $\underline{\%}$ | $\underline{\text { Cost }}$ | Weighted cost |
| ---: | :---: | :---: | :---: |
| Preferred Stock | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
| Common Stock | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
|  | $0.00 \%$ | $0.00 \%$ | $\underline{0.000 \%}$ |

$\mathrm{R}=\quad \frac{0.000 \%}{0.000 \%}$
B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects.

Rate Base (Projected TCOS, $\ln 78$ )
R (from A. above)
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 (Projected TCOS, $\ln 126$
Income Tax Calculation (Return x CIT)
ITC Adjustment
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 (Projected TCOS, ln 1)
T.E.A. \& Lease Payments (Projected TCOS, Lns 105 \& 106

Return (Projected TCOS, ln 134)
Income Taxes (Projected TCOS, $\ln 133$ )
Annual Revenue Requirement, Less TEA Charges, Return and Taxes
B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.

Annual Revenue Requirement, Less TEA Charges, Return and Taxes
Return (from I.B. above)
Income Taxes (from I.C. above)
Annual Revenue Requirement, with Basis Point ROE increase
Depreciation (Projected TCOS, ln 111)
Annual Rev. Req, w/ Basis Point ROE increase, less Depreciation
C. Determine FCR with hypothetical basis point ROE increase

Net Transmission Plant (Projected TCOS, In 48)
Annual Revenue Requirement, with Basis Point ROE increase
FCR with Basis Point increase in ROE
FCR with Basis Point ROE increase, less Depreciation
FCR less Depreciation (Projected TCOS, $\ln 9$ )
Incremental FCR with Basis Point ROE increase, less Depreciation
Calculation of Composite Depreciation Rate
Transmission Plant @ Beginning of Historic Period (Historic Year) (P.206, ln 58,(b)):
Transmission Plant @ End of Historic Period (Historic Year) (P.207, ln 58,(g)):
0.00\%
$0.00 \%<==$ ROE Adder Cannot Exceed 125 Basis Points
<== ROE Including Incentives Cannot Exceed 12.74\% Until July 1, 2012

| SUMMARY OF PROJECTED ANNUAL RTEP REVENUE REQUIREMENTS |  |  |
| ---: | :--- | ---: |
| Rev Require | W Incentives | Incentive Amounts |

PROJECTED YEAR Projected Year

000\%

Subtotal
Average Transmission Plant Balance for Historic Year
Annual Depreciation Rate (Projected TCOS, $\ln 111)$
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. (e.g. ER05-925-000)

| Project Description: |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Details |  |  |  |  |  |  |  |
| Investment |  | Current Year |  |  |  | Projected Year |  |
| Service Year (yyyy) |  | ROE increase accepted by FERC (Basis Points) |  |  |  |  | - |
| Service Month (1-12) |  | 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) |  | Annual Depreciation Expense |  |  |  |  | - |
| Investment | Beginning | Depreciation | Ending | RTEP Rev. Req't. | RTEP Rev. Req't. |  |  |
| Year | Balance | Expense | Balance | w/o Incentives | with Incentives ** |  | \#\# |
| - | - | - | - | - - | - - | \$ | - |

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 PROIECTED 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


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.
 that the project goes into service has been annualized (shown at the full-year level) so that PJM will collect the correct monthly billings.

AEP East Companies
Cost of Service Formula Rate Using Historic Year FF1 Balances
Worksheet K Supporting Calculation of TRUE-UP 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 MOE Incesive Adde
Project ROE Incentive Adder
ROE with additional basis point incentive
0.00\% <==ROE Adder Cannot Exceed 100 Basis Points

Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the True-Up TCOS, Ins 162 through164)

|  | $\underline{\underline{\sigma}}$ | $\underline{\text { Cost }}$ | Weighted cost |
| :---: | :---: | :---: | :---: |
| Long Term Debt | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
| Preferred Stock | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
| Common Stock | $0.00 \%$ | $0.00 \%$ |  |
|  |  |  | $\mathrm{R}=$ |
| $0.000 \%$ |  |  |  |
| $0.000 \%$ |  |  |  |

B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects. Rate Base (True-Up TCOS, $\ln 78$ )
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 (True-Up TCOS, $\ln 126$ )
Income Tax Calculation (Return x CIT)
ITC Adjustment
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 (True-Up TCOS, $\ln 1$ )
T.E.A. \& Lease Payments (True-Up TCOS, Lns 105 \& 106)

Return (True-Up TCOS, In 134)
and
Annual Revenue Requirement, Less TEA Charges, Return and Taxes
B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.

Annual Revenue Requirement, Less TEA Charges, Return and Taxes
Return (from I.B. above)
Income Taxes (from I.C. above)
Annual Revenue Requirement, with Basis Point ROE increase
Depreciation (True-Up TCOS, ln 111)
Annual Rev. Req, w/ Basis Point ROE increase, less Depreciation
C. Determine FCR with hypothetical basis point ROE increase

Net Transmission Plant (True-Up TCOS, In 48)
Annual Revenue Requirement, with Basis Point ROE increase
FCR with Basis Point increase in ROE
Annual Rev. Req, w/Basis Point ROE increase, less Dep.
FCR with Basis Point ROE increase, less Depreciation
FCR less Depreciation (True-Up TCOS, $\ln 9$ )
II. Cal

Transmission Plant @ Beginning of Historic Period () (P.206, ln 58,(b))
Transmission Plant @ End of Historic Period () (P.207, ln 58,(g)):
Subtotal
Average Transmission Plant Balance for
Annual Depreciation Rate (True-Up TCOS, $\ln$ 111)

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.
(e.g. ER05-925-000)

Project
Description:

| Details |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Investment |  | Current Year |  |  |  |  | Historic Year |
| Service Year (yyyy) |  | ROE increase accepted by FERC (Basis Points) |  |  |  |  |  |
| Service Month (1- <br> 12) |  | FCR w/o incentives, less depreciation FCR w/incentives approved for these facilities, less |  |  |  |  | 0.00\% |
| Useful life | - | FCR w/incentives approved for these facilities, less dep. |  |  |  |  |  |
| CIAC (Yes or No) | No | Annual Depreciation Expense |  |  |  |  |  |
| Investment <br> Year | Beginning <br> Balance | Depreciation <br> Expense | Ending <br> Balance | Average <br> Balance | RTEP Rev. <br> Req't. <br> w/o Incentives | RTEP Rev. Req't. with Incentives | Incentive Rev. <br> Requirement <br> \#\# |
| - |  | - - | - |  | - | - | $\begin{aligned} & \hline \$ \\ & \hline \$ \end{aligned}$ |

Page 2 of 2

| Historic Year | 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
THE PROJECT.

| RTEP Projected <br> Rev. Req'..From <br> Prior Year WS J | RTEP Rev <br> Req't True-up <br> w/o Incentives | RTEP <br> Projected Rev. <br> Req't.From <br> Prior Year WS J <br> with Incentives <br> $* * *$ | RTEP Rev <br> Req't True-up <br> with Incentives <br> $* *$ | True-up of <br> Incentive <br> with Incentives <br> \%* |
| :---: | :--- | :---: | :---: | :---: |
|  | $\$$ |  | $\$$ | - |
|  | - |  | $\$$ | - |
|  | - |  | $\$$ | $\$$ |

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. dditional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated or PJM
should be incremented by the amount of the incentive revenue calculated for that year on this project.

## Calculation of Projected Interest Expense Based on Outstanding Debt at Year End

(A)
(B)
(C)
(D)
(E)

Line Number Issuance

Principle Outstanding
Interest Rate
Annual Expense (See Note $S$ on Projected Template)

## Long Term Debt (FF1.p.

256-257.h)

Premium, \& Expenses:
Auction Fees
FF1.p. 256 \& 257.Lines Described as Fees
Allowable Hedge Amortization (See Ln 45 Below)
Amort of Debt Discount
and Expenses FF1.p. 117.63.c
Amort of Debt
Premimums (Enter
Negative)
FF1.p. 117.65.c

$\frac{\text { Preferred Stock (FF1.p. }}{\underline{\text { 250-251) }} \quad \frac{\text { Preferred Shares }}{\text { Outstanding }}}$

$\square$
1 Eligible Hedging Gains and Losses (WS M, Ln
35, (E))
Total Projected Capital Structure Balance for Historic Year+1 (Projected TCOS, Ln 165)

Financial Hedge Recovery Limit - Five Basis Points of Total
Capital Recoverable
Amount
Recoverable Hedge Amortization (Lesser of $\operatorname{Ln} 41$ or $\operatorname{Ln} 44$

AEP East Companies
Transmission Cost of Service Formula Rate
COMPANY NAME HERE
Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital Based on Average of Balances At 12/31/Historic Year-1 \& 12/31/Historic Year


## AEP East Companie

## Cost of Service Formula Rate Using Historic Year FF1 Balances

Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use

|  | (A) | (B) | ( C$)$ | (D) | (E) | (F) | (G) | (H) | (I) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line | Date | Property Description | $\begin{aligned} & \quad \text { Function }(\mathbf{T}) \text { or }(\mathbf{G}) \\ & \mathrm{T}=\text { Transmission } \\ & \mathrm{G}=\text { General } \end{aligned}$ | Basis | Proceeds | (Gain) / Loss | Allocator | Proceeds (Gain) / Loss | Account |
| 1 |  |  |  |  |  | - | 0.000\% | - |  |
| 2 |  |  |  |  |  | - | 0.000\% | - |  |
| 3 |  |  |  |  |  | - | 0.000\% | - |  |
| 4 |  |  |  | Gain) or |  | - |  | - |  |

AEP East Companies
Cost of Service Formula Rate Using Historic Year FF1 Balances
Worksheet O-Calculation of Postemployment Benefits Other than Pensions Expenses Allocable to Transmission Service COMPANY NAME HERE

Total AEP East Operating Company PBOP Settlement Amount
Allocation of PBOP Settlement Amount for Historic Year
Total Company Amount

Line\#

Company

| Actual Expense |
| :---: |
| (Including AEPSC |
| Billed OPEB) |
| (A) |
| (Line 14) |
|  |
|  |
|  |
|  |

8 Sum of Lines $\mathbf{1}$ to 8
Ratio of Company Actual to Total
$(\mathbf{B})=(\mathbf{A}) /$ Total $(\mathbf{A})$
APCo
2
3 I\&M
KPCo
5 KNGP
6 OPCo
WPC

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

9 Direct Charged PBOP Expense per Actuarial Report Additional PBOP Ledger Entries
10 (from Company Records)
1 Medicare Subsidy
12 Net Company Expense (Ln $9+\operatorname{Ln} 10+\operatorname{Ln} 11)$
3 PBOP Expenses From AEP Service Corporation (from Company Records)
14 Company PBOP Expense (Ln $12+\operatorname{Ln} 13)$
APCo
0.00\%

| Allocation of PBOB <br> Recovery Allowance | Labor Allocator for <br> Historic Year | Actual Expense | Allowable Expense | One Year Functional <br> Expense <br> (Over)/Under |
| :---: | :---: | :---: | :---: | :---: |
| $(\mathbf{C})=(\mathbf{B}) *$ | (D) | $(\mathbf{E})=(\mathbf{A}) *(\mathbf{D})$ | $(\mathbf{F})=(\mathbf{C}) *(\mathbf{D})$ | $(\mathbf{G})=(\mathbf{E})-(\mathbf{F})$ |
| - |  | - | - | - |
| - |  | - | - | - |
| - |  | - | - | - |
| - | - | - | - |  |
| - |  | - | - | - |

.00\%
0.00\%
0.00\% $\qquad$

I\&M
KPCo
KNGSPT
OPCo
wPCo


## GENERAL NOTES:

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

Per the terms of the settlement in this case, 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 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Worksheet - P CALCULATION OF |  |  |  |  |  |  |  |  |  |  |  |  |
| TOTAL WEIGHTED AVERAGE DEPRECIATION RATES |  |  |  |  |  |  |  |  |  |  |  |  |
| FOR TRANSMISSION PLANT PROPERTY ACCOUNT |  |  |  |  |  |  |  |  |  |  |  |  |
| EFFECTIVE AS OF July 1, 2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| FOR MULTIPLE JURISDICTION COMPANIES |  |  |  |  |  |  |  |  |  |  |  |  |
| INDIANA MICHIGAN POWER COMPANY |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDIANA |  |  |  |  | MICHIGAN |  |  | FERC WHOLESALE |  |  | COMPANY |
|  |  | (1) |  |  |  | (2) |  |  | (3) |  |  |  |
|  |  |  |  |  | WTD AVG. | MPSC | WTD |  |  | WTD A |  | WTD AVG. |
|  | PLANT | IURC | ALL |  | DEPREC. | APPROVED | ALLOCATION | DEPREC. | FERC | ALLOCATION | DEPREC. | DEPREC. |
|  | ACCT. | RATES |  |  | RATE | RATES | FACTOR (4) | Rate | RATES | FACTOR (4) | Rate | RATE |
| TRANSMISSION PLANT |  |  |  |  |  |  |  |  |  |  |  |  |
| Land Improvements | 350.1 |  | 1.27\% | . 646552 | .8211\% | 1.1700\% | . 139381 | .1631\% | 1.1700\% | . 214067 | .2505\% | 1.23\% |
| Structures \& Improvements | 352.0 |  | 1.32\% | . 646552 | .8534\% | 1.2700\% | . 139381 | .1770\% | 1.2700\% | . 214067 | .2719\% | 1.30\% |
| Station Equipment | 353.0 |  | 1.69\% | . 646552 | 1.0927\% | 1.6500\% | . 139381 | .2300\% | 1.6500\% | . 214067 | . $3532 \%$ | 1.68\% |
| Towers \& Fixtures | 354.0 |  | 1.60\% | . 646552 | 1.0345\% | 1.4400\% | . 139381 | .2007\% | 1.4400\% | . 214067 | . $3083 \%$ | 1.54\% |
| Poles \& Fixtures | 355.0 |  | 2.43\% | . 646552 | 1.5711\% | 2.3900\% | . 139381 | .3331\% | 2.3900\% | . 214067 | . $5116 \%$ | 2.42\% |
| Overhead Conductors | 356.0 |  | 1.53\% | . 646552 | .9892\% | 1.4500\% | . 139381 | . $2021 \%$ | 1.4500\% | . 214067 | .3104\% | 1.50\% |
| Underground Conduit | 357.0 |  | 1.56\% | . 646552 | 1.0086\% | 1.3900\% | . 139381 | .1937\% | 1.3900\% | . 214067 | .2976\% | 1.50\% |
| Underground Conductors | 358.0 |  | 1.55\% | . 646552 | 1.0022\% | 1.4600\% | . 139381 | .2035\% | 1.4600\% | . 214067 | .3125\% | 1.52\% |
| Trails \& Roads | 359.0 |  | 1.49\% | . 646552 | .9634\% | 1.4700\% | . 139381 | .2049\% | 1.4700\% | . 214067 | .3147\% | 1.48\% |
| (1) As approved in Indiana Case No. 44075. |  |  |  |  |  |  |  |  |  |  |  |  |
| (2) As approved in Michigan Case No. U16801. |  |  |  |  |  |  |  |  |  |  |  |  |
| (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. <br>  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. <br>  jurisdictions to derive the composite rate for the company. |  |  |  |  |  |  |  |  |  |  |  |  |
|  necessitate a 205 filing. |  |  |  |  |  |  |  |  |  |  |  |  |

# AEP EAST COMPANIES <br> PJM FORMULA RATE <br> WORKSHEET P - TRANSMISSION DEPRECIATION RATES <br> EFFECTIVE AS OF 1/1/2009 <br> FOR SINGLE JURISDICTION COMPANIES KINGSPORT POWER COMPANY 

|  | PLANT <br> ACCT. | RATES <br> Note 1 |
| :--- | :--- | :---: |
| TRANSMISSION PLANT |  |  |
| Structures \& Improvements | 352.0 | $2.10 \%$ |
| Station Equipment | 353.0 | $2.57 \%$ |
| Towers \& Fixtures | 354.0 | $1.91 \%$ |
| Poles \& Fixtures | 355.0 | $4.20 \%$ |
| Overhead Conductors | 356.0 | $2.50 \%$ |
| Underground Conduit | 357.0 | Note 2 |
| Underground Conductors | 358.0 | Note 2 |
| Composite Transmission Depreciation Rate |  | $\mathbf{2 . 5 9 \%}$ |

## Reference:

Note 1: Rates Approved In Tennessee Regulatory Authority Case No. U-84-7308.

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
Per the terms of the settlement in this case, 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 <br> PJM FORMULA RATE <br> WORKSHEET P - TRANSMISSION DEPRECIATION RATES <br> EFFECTIVE AS OF 7/1/2015 <br> FOR SINGLE JURISDICTION COMPANIES <br> KENTUCKY POWER COMPANY 

|  | PLANT <br> ACCT. | RATES <br> Note 1 |
| :--- | :--- | :--- |
| TRANSMISSION PLANT |  |  |
| 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 | $2.62 \%$ |

Reference:

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

## General Note:

Per the terms of the settlement in this case, 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

|  | RATES <br> Note 1 |
| :--- | :--- | :---: |
|  | ACCT. |

## 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.

## General Note:

Per the terms of the settlement in this case, 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 6/1/2015FOR SINGLE JURISDICTION COMPANIES WHEELING POWER COMPANY

|  | PLANT <br> ACCT. | RATES <br> Note 1 |
| :--- | :--- | :--- |
| TRANSMISSION PLANT |  |  |
| Structures \& Improvements | 352.0 | $0.69 \%$ |
| Station Equipment | 353.0 | $1.70 \%$ |
| Towers \& Fixtures | 354.0 | $0.04 \%$ |
| Poles \& Fixtures | 355.0 | $2.65 \%$ |
| Overhead Conductors | 356.0 | $1.12 \%$ |
| Underground Conduit | 357.0 | $2.00 \%$ |
| Underground Conductors | 358.0 | $5.00 \%$ |
| Trails \& Roads | 359.0 | - |

Note 1: Rates Approved in WV Public Service Commission Case No. 14-1151-E-D

## General Note:

Per the terms of the settlement in this case, 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.

# Revisions to Attachment H-20A Appendix of the PJM OATT 

## (Clean Format)

## Appendix A to Attachment H-20A

# American Electric Power Service Corporation Docket No. ER10-355 

Transmission Formula Rate Settlement<br>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 $\qquad$ , 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:
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 ("ATRR") 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
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 $1^{\text {st }}$ 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
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 $40 \%$ $\mathrm{x} 0.75+32 \%$ x $0.25=38 \%$ ).
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 Systemwide 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.
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

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 underrecover 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
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 FERCregulated 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-
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
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.
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

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-toPoint Transmission Service.
F. Allocators.
3. 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.
4. 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.
5. 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
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.

## Appendix A-1.1

## AEP East Consolidated Utility Capital Structure

## Consolidation of Operating Companies' Capital Structure @ 12-31-2009 Worksheet Q Page 1




| 40 | Less: Account 219.1 (112.15.c) | $(50,254,363)$ | $(21,700,504)$ | $(600,942)$ | 5,560 | $(118,458,118)$ | $(1,749,500)$ | $(242,751,398)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | Balance of Common Equity | 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 |
| Calculation of Capital Shares |  |  |  |  |  |  |  |  |
| 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) Preferred Stock Capital Shares (Ln 43 / | 55.24\% | 50.20\% | 55.99\% | 48.39\% | 49.08\% | 35.38\% | 51.93\% |
| 47 | Ln 45) Common Equity Capital Shares (Ln 44 | 0.28\% | 0.24\% | 0.00\% | 0.00\% | 0.25\% | 0.00\% | 0.21\% |
| 48 | / Ln 45) | 44.48\% | 49.56\% | 44.01\% | 51.61\% | 50.66\% | 64.62\% | 47.86\% |
| 49 | Equity Capital Share Limit <br> LTD Capital Shares with Capital Equity | 50.00\% | 50.00\% | 50.00\% | 100.00\% | 51.00\% | 100.00\% | 50.00\% |
| 50 | Cap | 55.24\% | 50.20\% | 55.99\% | 48.39\% | 49.08\% | 35.38\% | 51.93\% |
| 51 | Preferred Stock Capital Shares Common Equity Capital Shares with | 0.28\% | 0.24\% | 0.00\% | 0.00\% | 0.25\% | 0.00\% | 0.21\% |
| 52 | Capital Equity Cap | 44.48\% | 49.56\% | 44.01\% | 51.61\% | 50.66\% | 64.62\% | 47.86\% |
| Calculation of Capital Cost Rate |  |  |  |  |  |  |  |  |
| 53 | LTD Capital Cost Rate (Ln 14 / Ln 6) Preferred Stock Capital Cost Rate (Ln | 5.80\% | 6.03\% | 5.59\% | 5.38\% | 4.33\% | 5.25\% | 5.35\% |
| 54 | 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\% |
| Calculation of Weighted Capital Cost Rate |  |  |  |  |  |  |  |  |
| 56 | $\begin{aligned} & \text { LTD Weighted Capital Cost Rate (Ln } \\ & 50 \text { * Ln } 53 \text { ) } \\ & \text { Preferred Stock Capital Cost Rate (Ln } \end{aligned}$ | 3.21\% | 3.03\% | 3.13\% | 2.60\% | 2.13\% | 1.86\% | 2.78\% |
| 57 | $51 * \operatorname{Ln} 54)$ <br> Common Equity Capital Cost Rate (Ln | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% |
| 58 | 52 * Ln 55) | 5.11\% | 5.69\% | 5.06\% | 5.93\% | 5.82\% | 7.42\% | 5.50\% |
| 59 | Total Company Structure | 8.33\% | 8.73\% | 8.18\% | 8.53\% | 7.96\% | 9.28\% | 8.29\% |

## Appendix A-1.1

AEP East Consolidated Utility Capital Structure Consolidation of Operating Companies' Capital Structure @ 12-31-2008

Worksheet Q Page 2

|  |  | Indiana Michigan Power Company | Kentucky Power Company | Kingsport Power Company | Ohio Power Company | Wheeling Power Company | AEP East Operating Companies' Consolidated Capital Structure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line <br> Development of Long Term Debt Balances at Year End | Appalachian <br> Power <br> Company |  |  |  |  |  |  |
| 60 Bonds (112.18.c\&d) | - | - |  | - |  | - | - |
| 61 Less: Reacquired Bonds (112.19.c\&d) <br> LT Advances from Assoc. Companies | 17,500,000 | 100,000,000 |  | - | 85,000,000 | - | 294,745,000 |
| $62 \quad(112.20 . c \& d)$ | 100,000,000 | - | 20,000,000 | 20,000,000 | 200,000,000 | 25,000,000 | 465,000,000 |
| 63 Excludes Spent Nuc Fuel Disp Fund Less: Fair Value Hedges (See Note on Ln | 3,114,740,790 | 1,217,000,000 | 400,000,000 | - | 2,594,450,000 | - | 8,768,935,790 |
| 6466 below) | - | - |  | - | - | - | - |
| 65 Total Long Term Debt Balance | 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 FF1)

## Development of Long Term Debt Interest Expense

67 Interest on Long Term Debt (256-257.33.i) Amort of Debt Discount \& Expense

Amort of Loss on Reacquired Debt
(117.64.c)

70 Less: Amort of Premium on Debt (117.65.c) Less: Amort of Gain on Reacquired Debt
117.66.c)

72 Less: Hedge Interest on pp 256-257(i)

## 73 LTD Interest Expense

| 181,193,862 | 69,755,551 | 26,429,625 | 1,075,000 | 134,040,796 | 1,312,500 | 491,905,445 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,539,613 | 2,467,181 | 451,645 | - | 2,211,243 | - | 8,755,819 |
| 1,440,062 | 2,142,335 | 33,648 | - | 1,618,264 | - | 5,991,748 |
|  | - |  | - | - | - | - |
|  | - |  | - | - | - | - |
| 5,001,679 | 1,547,947 | 92,956 | - | $(1,250,297)$ | - | 5,392,285 |



| 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 | Balance of Common Equity | 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 |
| Calculation of Capital Shares |  |  |  |  |  |  |  |  |
| 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) <br> Preferred Stock Capital Shares (Ln 102 / Ln | 56.59\% | 43.24\% | 51.35\% | 44.41\% | 51.30\% | 38.22\% | 52.03\% |
| 106 | 104) Common Equity Capital Shares (Ln 103 / Ln | 0.31\% | 0.31\% | 0.00\% | 0.00\% | 0.31\% | 0.00\% | 0.25\% |
| 107 | 104) | 43.09\% | 56.44\% | 48.65\% | 55.59\% | 48.39\% | 61.78\% | 47.72\% |
| 108 | Equity Capital Share Limit | 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 Common Equity Capital Shares with Capital | 0.31\% | 0.31\% | 0.00\% | 0.00\% | 0.31\% | 0.00\% | 0.25\% |
| 111 | Equity Cap | 43.09\% | 50.00\% | 48.65\% | 55.59\% | 48.39\% | 61.78\% | 46.75\% |
| Calculation of Capital Cost Rate |  |  |  |  |  |  |  |  |
| 112 | LTD Capital Cost Rate (Ln 73 / Ln 65) Preferred Stock Capital Cost Rate (Ln 95 / | 5.64\% | 6.52\% | 6.39\% | 5.38\% | 5.13\% | 5.25\% | 5.61\% |
| 113 | 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\% |
| Calculation of Weighted Capital Cost Rate |  |  |  |  |  |  |  |  |
| 115 | LTD Weighted Capital Cost Rate (Ln 109 * Ln 112) <br> Preferred Stock Capital Cost Rate (Ln 110 * | 3.19\% | 3.24\% | 3.28\% | 2.39\% | 2.63\% | 2.01\% | 2.97\% |
| 116 | Ln 113) <br> Common Equity Capital Cost Rate (Ln 111 * | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% |
| 117 | Ln 114) | 4.95\% | 5.75\% | 5.59\% | 6.39\% | 5.56\% | 7.10\% | 5.37\% |
| 118 | Total Company Structure | 8.15\% | 9.00\% | 8.87\% | 8.77\% | 8.21\% | 9.11\% | 8.35\% |

## Appendix A-1.1

## AEP East Consolidated Utility Capital Structure

 Consolidation of Operating Companies' Average Capital Structure Worksheet Q Page 3|  | ment of Average Long Term | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Development of Average Long Term |  |  |  |  |  |  |  |  |
|  | Average Bonds (Ln $1+\operatorname{Ln} 60$ ) / |  |  |  |  |  |  |  |
| 119 |  | - | - | - | - | - | - | - |
| 120 | Less: Average Reacquired <br> Bonds (Ln $2+\operatorname{Ln} 61$ ) / 2 <br> Average LT Advances from <br> Assoc. Companies (Ln $3+\operatorname{Ln}$ | 17,500,000 | 50,000,000 | - | - | 194,000,000 | - | 307,622,500 |
| 121 | 62) / 2 <br> Average Senior Unsecured | 100,000,000 | 12,500,000 | 20,000,000 | 20,000,000 | 200,000,000 | 25,000,000 | 477,500,000 |
| 122 | Notes (Ln $4+\operatorname{Ln} 63$ ) / 2 Less: Average Fair Value Hedges (See Note on Ln 125 | 3,266,919,996 | 1,454,500,000 | 465,000,000 | - | 2,973,015,000 | - | 9,602,179,996 |
| 123 | below) | - | - | - | - | - | - | - |
| 124 | Average Balance of Long Term Debt | 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 |

## 5 NOTE: <br> Development of 2009 Long Term Debt Interest Expense <br> Interest on Long Term Debt

126 (256-257.33.i)
Amort of Debt Discount \&
127 Expense (117.63.c) Amort of Loss on Reacquired
128 Debt (117.64.c)
Less: Amort of Premium on
29 Debt (117.65.c)
Less: Amort of Gain on
130 Reacquired Debt (117.66.c)

| $201,508,637$ | $100,346,371$ | $30,323,070$ | $1,075,000$ | $129,578,994$ | $1,312,500$ | $547,990,827$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $3,232,592$ | $3,157,632$ | 457,098 | - | $3,354,846$ | - | $12,043,656$ |
| 991,540 | $1,596,824$ | 33,649 | - | 626,793 | - | $3,992,302$ |
| - | - | - | - | - | - | - |
| - | 1,712 | - | - | - | - | 1,712 |


| 131 | Less: Hedge Interest on pp 256257(i) | 2,569,395 | 1,551,518 | 92,956 | - | $(7,185,191)$ | - | $(2,971,322)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 132 | 2009 LTD Interest Expense | 203,163,374 | 103,547,597 | 30,720,861 | 1,075,000 | 140,745,824 | 1,312,500 | 566,996,395 |
| 2009 Cost of Preferred Stock and |  |  |  |  |  |  |  |  |
| Preferred Dividends |  |  |  |  |  |  |  |  |
|  | Average Balance of Preferred |  |  |  |  |  |  |  |
| 133 | Stock (Ln $35+$ Ln 94) / 2 2009 Preferred Dividends (Ln | 17,751,900 | 8,078,500 | - | - | 16,626,900 | - | 42,457,300 |
| 134 | 36) | 798,831 | 339,382 | - | - | 732,063 | - | 1,870,276 |
| Development of Average Common |  |  |  |  |  |  |  |  |
| Equity |  |  |  |  |  |  |  |  |
|  | Average Proprietary Capital (Ln |  |  |  |  |  |  |  |
| 135 | $37+\operatorname{Ln} 96) / 2$ | 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 |
|  | Less: Average Preferred Stock |  |  |  |  |  |  |  |
| 136 | (Ln 133 Above) | 17,751,900 | 8,078,500 | - | - | 16,626,900 | - | 42,457,300 |
|  | Less: Average Account 216.1 |  |  |  |  |  |  |  |
| 137 | (Ln $39+\operatorname{Ln} 98) / 2$ | 2,528,053 | $(1,046,000)$ | - | - | - | - | 7,615,449 |
| 138 | Less: Average Account 219.1 $(\operatorname{Ln} 40+\operatorname{Ln} 99) / 2$ | $(55,239,871)$ | $(20,967,173)$ | $(270,679)$ | 2,780 | $(126,158,347)$ | $(2,106,841)$ | $(253,162,325)$ |
|  | Average Balance of Common |  |  |  |  |  |  |  |
| 139 | Equity | 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 |
| Calculation of Capital Shares |  |  |  |  |  |  |  |  |
| 140 | Average Balance of Long Term | 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 |
|  | Debt (Ln 124 Above) <br> Average Balance of Preferred |  |  |  |  |  |  |  |
| 141 | Stock (Ln 133 Above) | 17,751,900 | 8,078,500 | 415,160,864 | - | 16,626,900 | - | 42,457,300 |
|  | Average Balance of Common |  |  |  |  |  |  |  |
| 142 | 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 |
|  | Average of Total Company | 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 |
| 143 | Structure |  |  |  |  |  |  |  |
| 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\% |
|  | Average Balance of Preferred |  |  |  |  |  |  |  |
|  | Stock Capital Shares (Ln 141 / |  |  |  |  |  |  |  |
| 145 | Ln 143) | 0.30\% | 0.27\% | 0.00\% | 0.00\% | 0.28\% | 0.00\% | 0.23\% |
|  | Average Balance of Common |  |  |  |  |  |  |  |
|  | Equity Capital Shares (Ln 142 / |  |  |  |  |  |  |  |
| 146 | Ln 143) | 43.82\% | 52.52\% | 46.12\% | 53.68\% | 49.65\% | 63.25\% | 47.80\% |
| 147 | Equity Capital Share Limit <br> LTD Capital Shares with Capital | 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\% |


| 150 | Common Equity Capital Shares with Capital Equity Cap | 43.82\% | 50.00\% | 46.12\% | 53.68\% | 49.65\% | 63.25\% | 47.39\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calculation of Capital Cost Rate |  |  |  |  |  |  |  |  |
|  | LTD Capital Cost Rate (Ln 132 / |  |  |  |  |  |  |  |
| 151 | Ln 124) | 6.07\% | 7.31\% | 6.33\% | 5.38\% | 4.72\% | 5.25\% | 5.80\% |
| 152 | Preferred Stock Capital C <br> Rate (Ln 134 / Ln 133) | 4.50\% | 4.20\% | 0.00\% | 0.00\% | 4.40\% | 0.00\% | 4.41\% |
|  | Common Equity Capital Cost |  |  |  |  |  |  |  |
| 153 | Rate | 11.49\% | 11.49\% | 11.49\% | 11.49\% | 11.49\% | 11.49\% | 11.49\% |
| Calculation of Weighted Capital Cost |  |  |  |  |  |  |  |  |
| Rate |  |  |  |  |  |  |  |  |
| 154 | LTD Weighted Capital Cost | 3.39\% | 3.63\% | 3.41\% | 2.49\% | 2.37\% | 1.93\% | 3.04\% |
|  | Rate (Ln 148 * Ln 151) |  |  |  |  |  |  |  |
|  | Preferred Stock Capital Cost |  |  |  |  |  |  |  |
| 155 | Rate (Ln 149 * Ln 152) | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% |
|  | Common Equity Capital Cost Rate (Ln 150 Ln 153) |  |  |  |  |  |  |  |
| 156 | ACTUAL WEIGHTED AVG | $5.04 \%$$\mathbf{8 . 4 4 \%}$ |  |  |  | 8.08\% | 9.20\% | 8.49\% |
| 157 | COST OF CAPITAL |  | 9.39\% | 8.71\% | 8.66\% |  |  |  |

## Appendix A.1.2

| AEP |  |  |  |
| :---: | :---: | :---: | :---: |
| Appalachian <br> Transmission <br> Co | AEP Indiana <br> Michigan <br> Transmission <br> Co | AEP <br> Kentucky <br> Transmission <br> Co | AEP Ohio <br> Transmission <br> Co |


| 350 | Land Rights |
| :--- | :--- |
| 352 | Structures \& Improvements |
| 353 | Station Equipment |
| 354 | Towers \& Fixtures |
| 355 | Poles \& Fixtures |
| 356 | OH Conductors \& Devices |
| 357 | Underground Conduit |
| 358 | Underground Conductor |
| 359 | Roads \& Trails |


|  | $1.27 \%$ | $1.44 \%$ | $1.36 \%$ |
| :---: | :---: | :---: | :---: |
| $1.52 \%$ | $1.32 \%$ | $2.08 \%$ | $1.64 \%$ |
| $1.68 \%$ | $1.69 \%$ | $2.15 \%$ | $1.84 \%$ |
| $1.54 \%$ | $1.60 \%$ | $2.61 \%$ | $1.92 \%$ |
| $2.64 \%$ | $2.43 \%$ | $3.95 \%$ | $3.01 \%$ |
| $1.19 \%$ | $1.53 \%$ | $2.91 \%$ | $1.88 \%$ |
| $1.45 \%$ | $1.56 \%$ | $2.99 \%$ | $2.00 \%$ |
| $7.23 \%$ | $1.55 \%$ | $2.62 \%$ | $3.80 \%$ |
|  | $1.49 \%$ | - | $1.49 \%$ |

*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.

## 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


| 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 |
| 15/022012 | 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 |  | - | $(608,903)$ |

${ }^{1}$ The IRR is the Debt Cost shown on Page 5, Line 118 of Rate Formula Template.
2 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).

## 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 <br> Effective cost <br> of debt used in <br> forecast/true <br> up | Final Effective cost <br> of debt for the <br> construction loan: |
| :--- | :--- | :--- |
| 2008 | $7.18 \%$ | $7.00 \%$ |
| 2009 | $6.8 \%$ | $7.00 \%$ |
| 2010 | $7.2 \%$ | $7.00 \%$ |
| 2011 | $7.3 \%$ | $7.00 \%$ |
| $2012^{*}$ | $7.1 \%$ | $6.83 \%$ |
| $2013^{* *}$ | $6.50 \%$ | $6.50 \%$ |
| $2014^{* *}$ | $6.50 \%$ | $6.50 \%$ |


| Hypothetical Revenue Requirement |  |  |
| :---: | :---: | :---: |
| Based on Estimated Effective cost of debt | Based on Actual Effective cost of debt | Over (Under) Recovery |
| \$ 2,500,000.00 | \$ 2,400,000.00 | \$ 100,000.00 |
| \$5,000,000.00 | \$5,150,000.00 | \$ (150,000.00) |
| \$8,300,000.00 | \$8,200,000.00 | \$ 100,000.00 |
| \$12,300,000.00 | \$12,000,000.00 | \$ 300,000.00 |
| \$18,000,000.00 | \$17,900,000.00 | \$ 100,000.00 |
| \$25,000,000.00 | \$25,000,000.00 | \$ |


| Hypothetical |
| :--- |
| Monthly Interest |
| Rate applicable |
| over the ATRR |
| period |
| $0.550 \%$ |
| $0.560 \%$ |
| $0.540 \%$ |
| $0.580 \%$ |
| $0.570 \%$ |


| Total Amount of Construction <br> Loan Related True-Up included <br> in rates effective Jan 2014 <br> (Refund)/Owed |
| :--- |
| $\$$ |

* 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\%*243days)+(6.5\%*122days))/365days

| Calculation of Applicable Interest Expense for each ATRR period |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Rate on Amount of Refunds | Over (Under) Recovery Plus Interest |  | Months | Calculated | Amortization | Surcharge |
| or Surcharges from 35.19a |  | Monthly Interest |  | Interest |  | (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 prorate 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) | $(10,550)$ |
| April | Year 2008 | 10,000 |  | 0.5500\% | 9.00 |  | (495) |  |
|  |  |  |  |  |  |  |  | $(10,495)$ |
| May | Year 2008 | 10,000 |  | 0.5500\% | 8.00 |  | (440) | $(10,440)$ |
| June | Year 2008 | 10,000 |  | 0.5500\% | 7.00 |  | (385) | $(10,385)$ |
| July | Year 2008 | 10,000 |  | 0.5500\% | 6.00 |  | (330) | $(10,330)$ |
| August | Year 2008 | 10,000 |  | 0.5500\% | 5.00 |  | (275) | $(10,275)$ |
| September | Year 2008 | 10,000 |  | 0.5500\% | 4.00 |  | (220) | $(10,220)$ |
| October | Year 2008 | 10,000 |  | 0.5500\% | 3.00 |  | (165) | $(10,165)$ |



## Appendix A.1.3

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



## Calculation of Interest for 2010 True-Up Period

 An over or under collection will be recovered prorata over 2010, held for 2011, 2012, 2013 and returned prorate over Monthly 2014| January | Year | 8,333 | 0.5400\% | 12.00 | (540) | $(8,873)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 |  |  |  |  |  |
| February | Year | 8,333 | 0.5400\% | 11.00 | (495) | $(8,828)$ |
|  | 2010 |  |  |  |  |  |
| March | Year | 8,333 | 0.5400\% | 10.00 | (450) | $(8,783)$ |
|  | 2010 |  |  |  |  |  |
| April | Year | 8,333 | 0.5400\% | 9.00 | (405) | $(8,738)$ |



## Appendix A.1.3




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

## Attachment D

Revisions to Section(s) of the PJM Open Access Transmission Tariff

(Marked / Redline Format)

# Revisions to Attachment H-14B of the PJM OATT 

## (Marked Format)

# AEP East Companies <br> Cost of Service Formula Rate Using Historic Year FF1 Balances <br> Worksheet G Supporting - Development of Composite State Income Tax Rate COMPANY NAME HERE 

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


[^4]AEP East Companies
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)

| Line <br> No. | Annual Tax Expenses by Type (Note 1) | Total <br> Company | FERC FORM 1 Tie-Back | FERC FORM 1 Reference |
| :---: | :---: | :---: | :---: | :---: |
| 1 | Revenue Taxes |  |  |  |
| 2 | Revenue Tax 1 | - |  |  |
| 3 | Real Estate and Personal Property Taxes |  |  |  |
| 4 | Real and Personal Property - Jurisdiction 1 | - |  |  |
| 5 | Real and Personal Property - Other Jurisdictions | - |  |  |
| 6 | Payroll Taxes |  |  |  |
| 7 | Federal Insurance Contribution (FICA ) | - |  |  |
| 8 | Federal Unemployment Tax | - |  |  |
| 9 | State Unemployment Insurance | - |  |  |
| 10 | Payroll Taxes | - |  |  |
|  |  |  | - |  |
| 11 | $\underline{\text { Production Taxes }}$ |  |  |  |
| 12 | Production Tax 1 | - |  |  |
| 13 | Miscellaneous Taxes |  |  |  |
| 14 | Miscellaneous Tax 1 | - |  |  |
| 15 | Miscellaneous Tax 2 | - |  |  |
| 16 | Miscellaneous Tax 3 | - |  |  |
| 17 | Miscellaneous Tax 4 | - |  |  |
| 18 | Miscellaneous Tax 5 | - |  |  |
| 19 | Miscellaneous Tax 6 | - |  |  |
| 20 | Miscellaneous Tax 7 | - |  |  |
| 21 | Miscellaneous Tax 8 | - |  |  |
| 22 | Total Taxes by Allocable Basis <br> (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.

## AEP East Companies

## Cost of Service Formula Rate Using Historic Year FF1 Balances

Worksheet I Supporting Transmission Plant in Service Additions


## AEP East Companies

Cost of Service Formula Rate Using Historic Year 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 (Projected TCOS, $\ln 164$ )
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 Projected TCOS, lns 162 through164)

| Long Term Debt | $\underline{\%}$ | $\underline{\text { Cost }}$ | Weighted cost |
| ---: | :---: | :---: | :---: |
| Preferred Stock | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
| Common Stock | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
|  | $0.00 \%$ | $0.00 \%$ | $\underline{0.000 \%}$ |

$\mathrm{R}=\quad \underline{0.000 \%}$
B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects.

Rate Base (Projected TCOS, $\ln 78$ )
R (from A. above)
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 (Projected TCOS, $\ln 126$
Income Tax Calculation (Return x CIT)
ITC Adjustmen
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 (Projected TCOS, $\ln 1$ )
T.E.A. \& Lease Payments (Projected TCOS, Lns 105 \& 106

Return (Projected TCOS, ln 134)
Income Taxes (Projected TCOS, $\ln 133$ )
Annual Revenue Requirement, Less TEA Charges, Return and Taxes
B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.

Annual Revenue Requirement, Less TEA Charges, Return and Taxes
Return (from I.B. above)
Income Taxes (from I.C. above)
Annual Revenue Requirement, with Basis Point ROE increase
Depreciation (Projected TCOS, ln 111)
Annual Rev. Req, w/ Basis Point ROE increase, less Depreciation
C. Determine FCR with hypothetical basis point ROE increase

Net Transmission Plant (Projected TCOS, In 48)
Annual Revenue Requirement, with Basis Point ROE increase
FCR with Basis Point increase in ROE
FCR with Basis Point ROE increase, less Depreciation
FCR less Depreciation (Projected TCOS, $\ln 9$ )
Incremental FCR with Basis Point ROE increase, less Depreciation
Calculation of Composite Depreciation Rate
Transmission Plant @ Beginning of Historic Period (Historic Year) (P.206, ln 58,(b)):
Transmission Plant @ End of Historic Period (Historic Year) (P.207, ln 58,(g)):
0.00\%
$0.00 \%<==$ ROE Adder Cannot Exceed 125 Basis Points
<== ROE Including Incentives Cannot Exceed 12.74\% Until July 1, 2012


PROJECTED YEAR Projected Year

000\%

Subtotal
Average Transmission Plant Balance for Historic Year
Annual Depreciation Rate (Projected TCOS, $\ln 111$ )
Composite Depreciation Rate

## 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. (e.g. ER05-925-000)


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 PROIECTED 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 PISIORY OF PROJECTED ARRS OVER THE LIFE OF THE


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.
 that the project goes into service has been annualized (shown at the full-year level) so that PJM will collect the correct monthly billings.

AEP East Companies
Cost of Service Formula Rate Using Historic Year FF1 Balances
Worksheet K Supporting Calculation of TRUE-UP 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

POE ROE Incent (TAder
Project ROE Incentive Adder
ROE with additional basis point incentive
0.00\% <==ROE Adder Cannot Exceed 100 Basis Points

Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the True-Up TCOS, Ins 162 through164)

|  | $\underline{\underline{\sigma}}$ | $\underline{\text { Cost }}$ | Weighted cost |
| :---: | :---: | :---: | :---: |
| Long Term Debt | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
| Preferred Stock | $0.00 \%$ | $0.00 \%$ | $0.000 \%$ |
| Common Stock | $0.00 \%$ | $0.00 \%$ |  |
|  |  |  | $\mathrm{R}=$ |
| $0.000 \%$ |  |  |  |
| $0.000 \%$ |  |  |  |

B. Determine Return using 'R' with hypothetical basis point ROE increase for Identified Projects. Rate Base (True-Up TCOS, $\ln 78$ )
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 (True-Up TCOS, $\ln 126$ )
Income Tax Calculation (Return x CIT)
ITC Adjustment
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 (True-Up TCOS, $\ln 1$ )
T.E.A. \& Lease Payments (True-Up TCOS, Lns 105 \& 106)

Return (True-Up TCOS, In 134)
and
Annual Revenue Requirement, Less TEA Charges, Return and Taxes
B. Determine Annual Revenue Requirement with hypothetical basis point increase in ROE.

Annual Revenue Requirement, Less TEA Charges, Return and Taxes
Return (from I.B. above)
Income Taxes (from I.C. above)
Annual Revenue Requirement, with Basis Point ROE increase
Depreciation (True-Up TCOS, ln 111)
Annual Rev. Req, w/ Basis Point ROE increase, less Depreciation
C. Determine FCR with hypothetical basis point ROE increase

Net Transmission Plant (True-Up TCOS, In 48)
Annual Revenue Requirement, with Basis Point ROE increase
FCR with Basis Point increase in ROE
Annual Rev. Req, w/Basis Point ROE increase, less Dep.
FCR with Basis Point ROE increase, less Depreciation
FCR less Depreciation (True-Up TCOS, $\ln 9$ )
II. Cal

Transmission Plant @ Beginning of Historic Period () (P.206, ln 58,(b)):
Transmission Plant @ End of Historic Period () (P.207, ln 58,(g)):
Trabtotal
Average Transmission Plant Balance for
Annual Depreciation Rate (True-Up TCOS, $\ln$ 111)

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.
(e.g. ER05-925-000)

Project
Description


Page 2 of 2

| Historic Year | 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
THE PROJECT.

| RTEP Projected <br> Rev. Req'..From <br> Prior Year WS J | RTEP Rev <br> Req't True-up <br> w/o Incentives | RTEP <br> Projected Rev. <br> Req't.From <br> Prior Year WS J <br> with Incentives <br> $* * *$ | RTEP Rev <br> Req't True-up <br> with Incentives <br> $* *$ | True-up of <br> Incentive <br> with Incentives <br> \%* |
| :---: | :--- | :---: | :---: | :---: |
|  | $\$$ |  | $\$$ | - |
|  | - |  | $\$$ | - |
|  | - |  | $\$$ | $\$$ |

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. dditional incentive requirement is applicable for the life of this specific project. Each year the revenue requirement calculated or PJM
should be incremented by the amount of the incentive revenue calculated for that year on this project.

## Calculation of Projected Interest Expense Based on Outstanding Debt at Year End

(A)
(B)
(C)
(D)
(E)

Line
umber
Issuance
Principle Outstanding
Interest Rate
Annual Expense (See Note $S$ on Projected Template)

## Long Term Debt (FF1.p.

256-257.h)
Total Interest on Long Term Debt


Issuance Discount,
Premium, \& Expenses:
Auction Fees
FF1.p. 256 \& 257.Lines Described as Fees
Allowable Hedge Amortization (See Ln 45 Below)
Amort of Debt Discount
and Expenses FF1.p. 117.63.c
Amort of Debt
Premimums (Enter
Negative)
FF1.p. 117.65.c


Installment Purchase Contracts (FF1.p. 256-257.h, a)



## Preferred Stock (FF1.p. Preferred Shares

250-251) Outstanding


41 Eligible Hedging Gains and Losses (WS M, Ln
35, (E))
Total Projected Capital Structure Balance for Historic Year+1 (Projected TCOS, Ln 165)

Financial Hedge Recovery Limit - Five Basis Points of Total
Capital
Amount
Recoverable Hedge Amortization (Lesser of $\operatorname{Ln} 41$ or $\operatorname{Ln} 44$ )

AEP East Companies
Transmission Cost of Service Formula Rate
COMPANY NAME HERE
Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital Based on Average of Balances At 12/31/Historic Year-1 \& 12/31/Historic Year


## AEP East Companie

## Cost of Service Formula Rate Using Historic Year FF1 Balances

Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use


AEP East Companies
Cost of Service Formula Rate Using Historic Year FF1 Balances
Worksheet O-Calculation of Postemployment Benefits Other than Pensions Expenses Allocable to Transmission Service COMPANY NAME HERE

Total AEP East Operating Company PBOP Settlement Amount
Allocation of PBOP Settlement Amount for Historic Year
Total Company Amoun

Line\#

Company
Actual Expense
(Including AEPSC
Billed OPEB)

8 Sum of Lines $\mathbf{1}$ to 8
Ratio of Company Actual to Total
$(\mathbf{B})=(\mathbf{A}) / \operatorname{Total}(\mathbf{A})$
APCo
2
3 I\&M
KPCo
5 KNGP
6 OPCo
WPC

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

9 Direct Charged PBOP Expense per Actuarial Report Additional PBOP Ledger Entries
10 (from Company Records)
1 Medicare Subsidy
12 Net Company Expense (Ln $9+\operatorname{Ln} 10+\operatorname{Ln} 11)$
13 PBOP Expenses From AEP Service Corporation (from Company Records)
14 Company PBOP Expense (Ln $12+\operatorname{Ln} 13)$
APCo

| Allocation of PBOB <br> Recovery Allowance | Labor Allocator for <br> Historic Year | Actual Expense | Allowable Expense | One Year Functional <br> Expense <br> (Over)/Under |
| :---: | :---: | :---: | :---: | :---: |
| $(\mathbf{C})=(\mathbf{B}) *$ | (D) | $(\mathbf{E})=(\mathbf{A}) *(\mathbf{D})$ | $(\mathbf{F})=(\mathbf{C}) *(\mathbf{D})$ | $(\mathbf{G})=(\mathbf{E})-(\mathbf{F})$ |
| - |  | - | - | - |
| - |  | - | - | - |
| - |  | - | - | - |
| - | - | - | - |  |
| - |  | - | - | - |

0.00\%
0.00\%
0.00\% $\qquad$

$\qquad$


## the product for each jurisdiction is added with the other jurisdictions to derive the composite rate for the company.

Per the terms of the settlement in this case, 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 |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Worksheet - P CALCULATION OF |  |  |  |  |  |  |  |  |  |  |  |  |
| TOTAL WEIGHTED AVERAGE DEPRECIATION RATES |  |  |  |  |  |  |  |  |  |  |  |  |
| FOR TRANSMISSION PLANT PROPERTY ACCOUNT |  |  |  |  |  |  |  |  |  |  |  |  |
| EFFECTIVE AS OF July 1, 2014 |  |  |  |  |  |  |  |  |  |  |  |  |
| FOR MULTIPLE JURISDICTION COMPANIES |  |  |  |  |  |  |  |  |  |  |  |  |
| INDIANA MICHIGAN POWER COMPANY |  |  |  |  |  |  |  |  |  |  |  |  |
|  | INDIANA |  |  |  |  | MICHIGAN |  |  | FERC WHOLESALE |  |  | COMPANY |
|  |  | (1) |  |  |  | (2) |  |  | (3) |  |  |  |
|  |  |  |  |  | WTD AVG. | MPSC | WTD |  |  | WTD A |  | WTD AVG. |
|  | PLANT | IURC | ALL |  | DEPREC. | APPROVED | ALLOCATION | DEPREC. | FERC | ALLOCATION | DEPREC. | DEPREC. |
|  | ACCT. | RATES |  |  | RATE | Rates | FACTOR (4) | RATE | RATES | FACTOR (4) | RATE | RATE |
| TRANSMISSION PLANT |  |  |  |  |  |  |  |  |  |  |  |  |
| Land Improvements | 350.1 |  | 1.27\% | . 646552 | .8211\% | 1.1700\% | . 139381 | .1631\% | 1.1700\% | . 214067 | .2505\% | 1.23\% |
| Structures \& Improvements | 352.0 |  | 1.32\% | . 646552 | .8534\% | 1.2700\% | . 139381 | .1770\% | 1.2700\% | . 214067 | .2719\% | 1.30\% |
| Station Equipment | 353.0 |  | 1.69\% | . 646552 | 1.0927\% | 1.6500\% | . 139381 | .2300\% | 1.6500\% | . 214067 | . $3532 \%$ | 1.68\% |
| Towers \& Fixtures | 354.0 |  | 1.60\% | . 646552 | 1.0345\% | 1.4400\% | . 139381 | .2007\% | 1.4400\% | . 214067 | . $3083 \%$ | 1.54\% |
| Poles \& Fixtures | 355.0 |  | 2.43\% | . 646552 | 1.5711\% | 2.3900\% | . 139381 | . $3331 \%$ | 2.3900\% | . 214067 | .5116\% | 2.42\% |
| Overhead Conductors | 356.0 |  | 1.53\% | . 646552 | .9892\% | 1.4500\% | . 139381 | .2021\% | 1.4500\% | . 214067 | .3104\% | 1.50\% |
| Underground Conduit | 357.0 |  | 1.56\% | . 646552 | 1.0086\% | 1.3900\% | . 139381 | .1937\% | 1.3900\% | . 214067 | . $2976 \%$ | 1.50\% |
| Underground Conductors | 358.0 |  | 1.55\% | . 646552 | 1.0022\% | 1.4600\% | . 139381 | .2035\% | 1.4600\% | . 214067 | .3125\% | 1.52\% |
| Trails \& Roads | 359.0 |  | 1.49\% | . 646552 | .9634\% | 1.4700\% | . 139381 | .2049\% | 1.4700\% | . 214067 | . $3147 \%$ | 1.48\% |
| (1) As approved in Indiana Case No. 44075. |  |  |  |  |  |  |  |  |  |  |  |  |
| (2) As approved in Michigan Case No. U16801. |  |  |  |  |  |  |  |  |  |  |  |  |
| (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. <br>  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. <br>  jurisdictions to derive the composite rate for the company. |  |  |  |  |  |  |  |  |  |  |  |  |
|  necessitate a 205 filing. |  |  |  |  |  |  |  |  |  |  |  |  |

# AEP EAST COMPANIES <br> PJM FORMULA RATE <br> WORKSHEET P - TRANSMISSION DEPRECIATION RATES <br> EFFECTIVE AS OF 1/1/2009 <br> FOR SINGLE JURISDICTION COMPANIES KINGSPORT POWER COMPANY 

|  | PLANT <br> ACCT. | RATES <br> Note 1 |
| :--- | :--- | :---: |
| TRANSMISSION PLANT |  |  |
| Structures \& Improvements | 352.0 | $2.10 \%$ |
| Station Equipment | 353.0 | $2.57 \%$ |
| Towers \& Fixtures | 354.0 | $1.91 \%$ |
| Poles \& Fixtures | 355.0 | $4.20 \%$ |
| Overhead Conductors | 356.0 | $2.50 \%$ |
| Underground Conduit | 357.0 | Note 2 |
| Underground Conductors | 358.0 | Note 2 |
| Composite Transmission Depreciation Rate |  | $\mathbf{2 . 5 9 \%}$ |

## Reference:

Note 1: Rates Approved In Tennessee Regulatory Authority Case No. U-84-7308.

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
Per the terms of the settlement in this case, 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 17/1/20092015
FOR SINGLE JURISDICTION COMPANIES
KENTUCKY POWER COMPANY

|  | PLANT <br> ACCT. | RATES <br> Note 1 |
| :--- | :--- | :--- |
| TRANSMISSION PLANT |  |  |
| Land Rights | $\underline{350.1}$ | $\underline{1.44 \%}$ |
| Structures \& Improvements | 352.0 | $1.712 .08 \%$ |
| Station Equipment | 353.0 | $1.712 .15 \%$ |
| Towers \& Fixtures | 354.0 | $1.712 .61 \%$ |
| Poles \& Fixtures | 355.0 | $1.713 .95 \%$ |
| Overhead Conductors | 356.0 | $1.712 .91 \%$ |
| Underground Conduit | 357.0 | $1.712 .99 \%$ |
| Underground Conductors | 358.0 | $1.71 \underline{2.62 \%}$ |
| Trails\& Roads | 359.0 | $1.71 \%$ |

## Reference:

| Note 1: Rates Approved in Kentucky Public Service Commission Case No. 2014-0039691-066.

## General Note:

Per the terms of the settlement in this case, 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|  | PLANT <br> ACCT. | RATES <br> Note 1 |
| :--- | :--- | :---: |
| TRANSMISSION PLANT |  |  |
| Structures \& Improvements | 352.0 | $2.02 \%$ |
| Station Equipment | 353.0 | $2.29 \%$ |
| Twrs and Fixtures Above 69 KV |  |  |
| Twrs and Fixtures Below 69 KV | 354.0 | $1.88 \%$ |
| Poles and Fixtures Above 69 KV | 354.0 | $1.88 \%$ |
| Poles and Fixtures Below 69 KV | 355.0 | $3.52 \%$ |
| Overhead Conductor \& Devices Above 69KV | 355.0 | $3.52 \%$ |
| 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 | 356.0 | $1.91 \%$ |
| Underground Conductors |  |  |

## 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.

## General Note:

Per the terms of the settlement in this case, 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 16/1/20092015
FOR SINGLE JURISDICTION COMPANIES
WHEELING POWER COMPANY

|  | PLANT <br> ACCT. | RATES <br> Note 1 |
| :--- | :--- | ---: |
| TRANSMISSION PLANT |  |  |
| Structures \& Improvements | 352.0 | $2.700 .69 \%$ |
| Station Equipment | 353.0 | $2 . .70 \%$ |
| Towers \& Fixtures | 354.0 | $2.700 .04 \%$ |
| Poles \& Fixtures | 355.0 | $2.70 \underline{0} \%$ |
| Overhead Conductors | 356.0 | $2.701 .12 \%$ |
| Underground Conduit | 357.0 | $2.7000 \%$ |
| Underground Conductors | 358.0 | $2.705 .00 \%$ |
| Trails \& Roads | 359.0 | $2.70 \%=$ |

| Note 1: Rates Approved in WV Public Service Commission Case No. 14-1151-E-DPSC 90-243-E-42T.

## General Note:

Per the terms of the settlement in this case, 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.

# Revisions to Attachment H-20A Appendix of the PJM OATT 

(Marked Format)

## Appendix A to Attachment H-20A

# American Electric Power Service Corporation Docket No. ER10-355 

Transmission Formula Rate Settlement<br>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 $\qquad$ , 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:
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 ("ATRR") 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
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 $1^{\text {st }}$ of the current year through June 30 of the following year. The interest rate will be calculated as per section 35.19 a 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
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 $40 \%$ $\mathrm{x} 0.75+32 \%$ x $0.25=38 \%$ ).
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 Systemwide 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.
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

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 underrecover 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
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 FERCregulated 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-
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
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.
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

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-toPoint Transmission Service.
F. Allocators.
3. 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.
4. 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.
5. 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
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.

## Appendix A-1.1

## AEP East Consolidated Utility Capital Structure

## Consolidation of Operating Companies' Capital Structure @ 12-31-2009 Worksheet Q Page 1




| 40 | Less: Account 219.1 (112.15.c) | $(50,254,363)$ | $(21,700,504)$ | $(600,942)$ | 5,560 | $(118,458,118)$ | $(1,749,500)$ | $(242,751,398)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 41 | Balance of Common Equity | 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 |
| Calculation of Capital Shares |  |  |  |  |  |  |  |  |
| 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) Preferred Stock Capital Shares (Ln 43 / | 55.24\% | 50.20\% | 55.99\% | 48.39\% | 49.08\% | 35.38\% | 51.93\% |
| 47 | Ln 45) Common Equity Capital Shares (Ln 44 | 0.28\% | 0.24\% | 0.00\% | 0.00\% | 0.25\% | 0.00\% | 0.21\% |
| 48 | / Ln 45) | 44.48\% | 49.56\% | 44.01\% | 51.61\% | 50.66\% | 64.62\% | 47.86\% |
| 49 | Equity Capital Share Limit <br> LTD Capital Shares with Capital Equity | 50.00\% | 50.00\% | 50.00\% | 100.00\% | 51.00\% | 100.00\% | 50.00\% |
| 50 | Cap | 55.24\% | 50.20\% | 55.99\% | 48.39\% | 49.08\% | 35.38\% | 51.93\% |
| 51 | Preferred Stock Capital Shares Common Equity Capital Shares with | 0.28\% | 0.24\% | 0.00\% | 0.00\% | 0.25\% | 0.00\% | 0.21\% |
| 52 | Capital Equity Cap | 44.48\% | 49.56\% | 44.01\% | 51.61\% | 50.66\% | 64.62\% | 47.86\% |
| Calculation of Capital Cost Rate |  |  |  |  |  |  |  |  |
| 53 | LTD Capital Cost Rate (Ln 14 / Ln 6) Preferred Stock Capital Cost Rate (Ln | 5.80\% | 6.03\% | 5.59\% | 5.38\% | 4.33\% | 5.25\% | 5.35\% |
| 54 | 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\% |
| Calculation of Weighted Capital Cost Rate |  |  |  |  |  |  |  |  |
| 56 | $\begin{aligned} & \text { LTD Weighted Capital Cost Rate (Ln } \\ & 50 \text { * Ln } 53 \text { ) } \\ & \text { Preferred Stock Capital Cost Rate (Ln } \end{aligned}$ | 3.21\% | 3.03\% | 3.13\% | 2.60\% | 2.13\% | 1.86\% | 2.78\% |
| 57 | $51 * \operatorname{Ln} 54)$ <br> Common Equity Capital Cost Rate (Ln | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% |
| 58 | 52 * Ln 55) | 5.11\% | 5.69\% | 5.06\% | 5.93\% | 5.82\% | 7.42\% | 5.50\% |
| 59 | Total Company Structure | 8.33\% | 8.73\% | 8.18\% | 8.53\% | 7.96\% | 9.28\% | 8.29\% |

## Appendix A-1.1

AEP East Consolidated Utility Capital Structure Consolidation of Operating Companies' Capital Structure @ 12-31-2008

Worksheet Q Page 2

|  |  | Indiana Michigan Power Company | Kentucky Power Company | Kingsport Power Company | Ohio Power Company | Wheeling Power Company | AEP East Operating Companies' Consolidated Capital Structure |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Line <br> Development of Long Term Debt Balances at Year End | Appalachian <br> Power <br> Company |  |  |  |  |  |  |
| 60 Bonds (112.18.c\&d) | - | - |  | - |  | - | - |
| 61 Less: Reacquired Bonds (112.19.c\&d) <br> LT Advances from Assoc. Companies | 17,500,000 | 100,000,000 |  | - | 85,000,000 | - | 294,745,000 |
| $62 \quad(112.20 . c \& d)$ | 100,000,000 | - | 20,000,000 | 20,000,000 | 200,000,000 | 25,000,000 | 465,000,000 |
| 63 Excludes Spent Nuc Fuel Disp Fund Less: Fair Value Hedges (See Note on Ln | 3,114,740,790 | 1,217,000,000 | 400,000,000 | - | 2,594,450,000 | - | 8,768,935,790 |
| 6466 below) | - | - |  | - | - | - | - |
| 65 Total Long Term Debt Balance | 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 FF1)

## Development of Long Term Debt Interest Expense

67 Interest on Long Term Debt (256-257.33.i) Amort of Debt Discount \& Expense

Amort of Loss on Reacquired Debt
(117.64.c)

70 Less: Amort of Premium on Debt (117.65.c) Less: Amort of Gain on Reacquired Debt
117.66.c)

72 Less: Hedge Interest on pp 256-257(i)

## 73 LTD Interest Expense

| 181,193,862 | 69,755,551 | 26,429,625 | 1,075,000 | 134,040,796 | 1,312,500 | 491,905,445 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2,539,613 | 2,467,181 | 451,645 | - | 2,211,243 | - | 8,755,819 |
| 1,440,062 | 2,142,335 | 33,648 | - | 1,618,264 | - | 5,991,748 |
|  | - |  | - | - | - | - |
|  | - |  | - | - | - | - |
| 5,001,679 | 1,547,947 | 92,956 | - | $(1,250,297)$ | - | 5,392,285 |



| 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 | Balance of Common Equity | 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 |
| Calculation of Capital Shares |  |  |  |  |  |  |  |  |
| 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) <br> Preferred Stock Capital Shares (Ln 102 / Ln | 56.59\% | 43.24\% | 51.35\% | 44.41\% | 51.30\% | 38.22\% | 52.03\% |
| 106 | 104) Common Equity Capital Shares (Ln 103 / Ln | 0.31\% | 0.31\% | 0.00\% | 0.00\% | 0.31\% | 0.00\% | 0.25\% |
| 107 | 104) | 43.09\% | 56.44\% | 48.65\% | 55.59\% | 48.39\% | 61.78\% | 47.72\% |
| 108 | Equity Capital Share Limit | 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 Common Equity Capital Shares with Capital | 0.31\% | 0.31\% | 0.00\% | 0.00\% | 0.31\% | 0.00\% | 0.25\% |
| 111 | Equity Cap | 43.09\% | 50.00\% | 48.65\% | 55.59\% | 48.39\% | 61.78\% | 46.75\% |
| Calculation of Capital Cost Rate |  |  |  |  |  |  |  |  |
| 112 | LTD Capital Cost Rate (Ln 73 / Ln 65) Preferred Stock Capital Cost Rate (Ln 95 / | 5.64\% | 6.52\% | 6.39\% | 5.38\% | 5.13\% | 5.25\% | 5.61\% |
| 113 | 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\% |
| Calculation of Weighted Capital Cost Rate |  |  |  |  |  |  |  |  |
| 115 | LTD Weighted Capital Cost Rate (Ln 109 * Ln 112) <br> Preferred Stock Capital Cost Rate (Ln 110 * | 3.19\% | 3.24\% | 3.28\% | 2.39\% | 2.63\% | 2.01\% | 2.97\% |
| 116 | Ln 113) <br> Common Equity Capital Cost Rate (Ln 111 * | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% |
| 117 | Ln 114) | 4.95\% | 5.75\% | 5.59\% | 6.39\% | 5.56\% | 7.10\% | 5.37\% |
| 118 | Total Company Structure | 8.15\% | 9.00\% | 8.87\% | 8.77\% | 8.21\% | 9.11\% | 8.35\% |

## Appendix A-1.1

## AEP East Consolidated Utility Capital Structure

 Consolidation of Operating Companies' Average Capital Structure Worksheet Q Page 3|  | ment of Average Long Term | 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 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Development of Average Long Term |  |  |  |  |  |  |  |  |
|  | Average Bonds (Ln $1+\operatorname{Ln} 60$ ) / |  |  |  |  |  |  |  |
| 119 |  | - | - | - | - | - | - | - |
| 120 | Less: Average Reacquired <br> Bonds (Ln $2+\operatorname{Ln} 61$ ) / 2 <br> Average LT Advances from <br> Assoc. Companies (Ln $3+\operatorname{Ln}$ | 17,500,000 | 50,000,000 | - | - | 194,000,000 | - | 307,622,500 |
| 121 | 62) / 2 <br> Average Senior Unsecured | 100,000,000 | 12,500,000 | 20,000,000 | 20,000,000 | 200,000,000 | 25,000,000 | 477,500,000 |
| 122 | Notes (Ln $4+\operatorname{Ln} 63$ ) / 2 Less: Average Fair Value Hedges (See Note on Ln 125 | 3,266,919,996 | 1,454,500,000 | 465,000,000 | - | 2,973,015,000 | - | 9,602,179,996 |
| 123 | below) | - | - | - | - | - | - | - |
| 124 | Average Balance of Long Term Debt | 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 |

## 5 NOTE: <br> Development of 2009 Long Term Debt Interest Expense <br> Interest on Long Term Debt

126 (256-257.33.i)
Amort of Debt Discount \&
127 Expense (117.63.c) Amort of Loss on Reacquired
128 Debt (117.64.c)
Less: Amort of Premium on
29 Debt (117.65.c)
Less: Amort of Gain on
130 Reacquired Debt (117.66.c)

| $201,508,637$ | $100,346,371$ | $30,323,070$ | $1,075,000$ | $129,578,994$ | $1,312,500$ | $547,990,827$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $3,232,592$ | $3,157,632$ | 457,098 | - | $3,354,846$ | - | $12,043,656$ |
| 991,540 | $1,596,824$ | 33,649 | - | 626,793 | - | $3,992,302$ |
| - | - | - | - | - | - | - |
| - | 1,712 | - | - | - | - | 1,712 |


| 131 | Less: Hedge Interest on pp 256257(i) | 2,569,395 | 1,551,518 | 92,956 | - | $(7,185,191)$ | - | $(2,971,322)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 132 | 2009 LTD Interest Expense | 203,163,374 | 103,547,597 | 30,720,861 | 1,075,000 | 140,745,824 | 1,312,500 | 566,996,395 |
| 2009 Cost of Preferred Stock and |  |  |  |  |  |  |  |  |
| Preferred Dividends |  |  |  |  |  |  |  |  |
|  | Average Balance of Preferred |  |  |  |  |  |  |  |
| 133 | Stock (Ln $35+$ Ln 94) / 2 2009 Preferred Dividends (Ln | 17,751,900 | 8,078,500 | - | - | 16,626,900 | - | 42,457,300 |
| 134 | 36) | 798,831 | 339,382 | - | - | 732,063 | - | 1,870,276 |
| Development of Average Common |  |  |  |  |  |  |  |  |
| Equity |  |  |  |  |  |  |  |  |
|  | Average Proprietary Capital (Ln |  |  |  |  |  |  |  |
| 135 | $37+\operatorname{Ln} 96) / 2$ | 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 |
|  | Less: Average Preferred Stock |  |  |  |  |  |  |  |
| 136 | (Ln 133 Above) | 17,751,900 | 8,078,500 | - | - | 16,626,900 | - | 42,457,300 |
|  | Less: Average Account 216.1 |  |  |  |  |  |  |  |
| 137 | (Ln $39+\operatorname{Ln} 98) / 2$ | 2,528,053 | $(1,046,000)$ | - | - | - | - | 7,615,449 |
| 138 | Less: Average Account 219.1 $(\operatorname{Ln} 40+\operatorname{Ln} 99) / 2$ | $(55,239,871)$ | $(20,967,173)$ | $(270,679)$ | 2,780 | $(126,158,347)$ | $(2,106,841)$ | $(253,162,325)$ |
|  | Average Balance of Common |  |  |  |  |  |  |  |
| 139 | Equity | 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 |
| Calculation of Capital Shares |  |  |  |  |  |  |  |  |
| 140 | Average Balance of Long Term | 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 |
|  | Debt (Ln 124 Above) <br> Average Balance of Preferred |  |  |  |  |  |  |  |
| 141 | Stock (Ln 133 Above) | 17,751,900 | 8,078,500 | 415,160,864 | - | 16,626,900 | - | 42,457,300 |
|  | Average Balance of Common |  |  |  |  |  |  |  |
| 142 | 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 |
|  | Average of Total Company | 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 |
| 143 | Structure |  |  |  |  |  |  |  |
| 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\% |
|  | Average Balance of Preferred |  |  |  |  |  |  |  |
|  | Stock Capital Shares (Ln 141 / |  |  |  |  |  |  |  |
| 145 | Ln 143) | 0.30\% | 0.27\% | 0.00\% | 0.00\% | 0.28\% | 0.00\% | 0.23\% |
|  | Average Balance of Common |  |  |  |  |  |  |  |
|  | Equity Capital Shares (Ln 142 / |  |  |  |  |  |  |  |
| 146 | Ln 143) | 43.82\% | 52.52\% | 46.12\% | 53.68\% | 49.65\% | 63.25\% | 47.80\% |
| 147 | Equity Capital Share Limit <br> LTD Capital Shares with Capital | 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\% |


| 150 | Common Equity Capital Shares with Capital Equity Cap | 43.82\% | 50.00\% | 46.12\% | 53.68\% | 49.65\% | 63.25\% | 47.39\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Calculation of Capital Cost Rate |  |  |  |  |  |  |  |  |
|  | LTD Capital Cost Rate (Ln 132 / |  |  |  |  |  |  |  |
| 151 | Ln 124) | 6.07\% | 7.31\% | 6.33\% | 5.38\% | 4.72\% | 5.25\% | 5.80\% |
| 152 | Preferred Stock Capital C <br> Rate (Ln 134 / Ln 133) | 4.50\% | 4.20\% | 0.00\% | 0.00\% | 4.40\% | 0.00\% | 4.41\% |
|  | Common Equity Capital Cost |  |  |  |  |  |  |  |
| 153 | Rate | 11.49\% | 11.49\% | 11.49\% | 11.49\% | 11.49\% | 11.49\% | 11.49\% |
| Calculation of Weighted Capital Cost |  |  |  |  |  |  |  |  |
| Rate |  |  |  |  |  |  |  |  |
| 154 | LTD Weighted Capital Cost | 3.39\% | 3.63\% | 3.41\% | 2.49\% | 2.37\% | 1.93\% | 3.04\% |
|  | Rate (Ln 148 * Ln 151) |  |  |  |  |  |  |  |
|  | Preferred Stock Capital Cost |  |  |  |  |  |  |  |
| 155 | Rate (Ln 149 * Ln 152) | 0.01\% | 0.01\% | 0.00\% | 0.00\% | 0.01\% | 0.00\% | 0.01\% |
|  | Common Equity Capital Cost Rate (Ln 150 Ln 153) |  |  |  |  |  |  |  |
| 156 | ACTUAL WEIGHTED AVG | $5.04 \%$$\mathbf{8 . 4 4 \%}$ |  |  |  | 8.08\% | 9.20\% | 8.49\% |
| 157 | COST OF CAPITAL |  | 9.39\% | 8.71\% | 8.66\% |  |  |  |

## Appendix A.1.2

| AEP | AEP Indiana | AEP <br> Kentucky <br> Appalachian <br> Transmission <br> Co | MEShigan <br> Transmission <br> Co |
| :---: | :---: | :---: | :---: |
| Transmission <br> Co | Transmission <br> Co |  |  |


| 350 | Land Rights |
| :--- | :--- |
| 352 | Structures \& Improvements |
| 353 | Station Equipment |
| 354 | Towers \& Fixtures |
| 355 | Poles \& Fixtures |
| 356 | OH Conductors \& Devices |
| 357 | Underground Conduit |
| 358 | Underground Conductor |
| 359 | Roads \& Trails |


|  | 1.27\% | 1.7144\% | 1.4936\% |
| :---: | :---: | :---: | :---: |
| 1.5552\% | 1.32\% | 1.712.08\% | 1.5364\% |
| 1.9568\% | 1.69\% | 1.712.15\% | 1.7884\% |
| 1.1454\% | 1.60\% | 1.712.61\% | 1.4892\% |
| 2.7764\% | 2.43\% | 1.713.95\% | 2.303.01\% |
| 1.0119\% | 1.53\% | 1.712.91\% | 1.4288\% |
| 1.2345\% | 1.56\% | 1.712.99\% | 1.502.00\% |
| 3.187.23\% | 1.55\% | 1.712.62\% | 2.153.80\% |
|  | 1.49\% | 1.71\%= | 1.6049\% |

*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.

## 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


| 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 |
| 15/022012 | 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 |  | - | $(608,903)$ |

${ }^{1}$ The IRR is the Debt Cost shown on Page 5, Line 118 of Rate Formula Template-
2 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).

## 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: |
| 2008 | 7.18\% | 7.00\% |
| 2009 | 6.8\% | 7.00\% |
| 2010 | 7.2\% | 7.00\% |
| 2011 | 7.3\% | 7.00\% |
| 2012* | 7.1\% | 6.83\% |
| 2013** | 6.50\% | 6.50\% |
| 2014** | 6.50\% | 6.50\% |


| Hypothetical Revenue Requirement |  |  |
| :---: | :---: | :---: |
| Based on Estimated Effective cost of debt | Based on Actual Effective cost of debt | Over (Under) Recovery |
| \$ 2,500,000.00 | \$ 2,400,000.00 | \$ 100,000.00 |
| \$5,000,000.00 | \$5,150,000.00 | \$ (150,000.00) |
| \$8,300,000.00 | \$8,200,000.00 | \$ 100,000.00 |
| \$12,300,000.00 | \$12,000,000.00 | \$ 300,000.00 |
| \$18,000,000.00 | \$17,900,000.00 | \$ 100,000.00 |
| \$25,000,000.00 | \$25,000,000.00 | \$ - |


| Hypothetical <br> Monthly Interest <br> Rate applicable <br> over the ATRR <br> period | Total Amount of Construction <br> Loan Related True-Up included <br> in rates effective Jan 2014 <br> (Refund)/Owed |
| :--- | :--- |
| $0.550 \%$ | $\$$ |
| $0.560 \%$ | $\$$ |

* 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\%*243days)+(6.5\%*122days))/365days

| Calculation of Applicable Interest Expense for each ATRR period |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Interest Rate on Amount of Refunds | Over (Under) Recovery Plus Interest | Hypothetical | Months | Calculated | Amortization | Surcharge <br> (Refund) Owed |
| or Surcharges from 35.19a |  | Monthly Interest Rate |  |  |  | (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 prorate 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) | $(10,550)$ |
| April | Year 2008 | 10,000 |  | 0.5500\% | 9.00 |  | (495) |  |
|  |  |  |  |  |  |  |  | $(10,495)$ |
| May | Year 2008 | 10,000 |  | 0.5500\% | 8.00 |  | (440) | $(10,440)$ |
| June | Year 2008 | 10,000 |  | 0.5500\% | 7.00 |  | (385) | $(10,385)$ |
| July | Year 2008 | 10,000 |  | 0.5500\% | 6.00 |  | (330) | $(10,330)$ |
| August | Year 2008 | 10,000 |  | 0.5500\% | 5.00 |  | (275) | $(10,275)$ |
| September | Year 2008 | 10,000 |  | 0.5500\% | 4.00 |  | (220) | $(10,220)$ |
| October | Year 2008 | 10,000 |  | 0.5500\% | 3.00 |  | (165) | $(10,165)$ |



## Appendix A.1.3

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



## Calculation of Interest for 2010 True-Up Period

 An over or under collection will be recovered prorata over 2010, held for 2011, 2012, 2013 and returned prorate over Monthly 2014| January | Year | 8,333 | 0.5400\% | 12.00 | (540) | $(8,873)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2010 |  |  |  |  |  |
| February | Year | 8,333 | 0.5400\% | 11.00 | (495) | $(8,828)$ |
|  | 2010 |  |  |  |  |  |
| March | Year | 8,333 | 0.5400\% | 10.00 | (450) | $(8,783)$ |
|  | 2010 |  |  |  |  |  |
| April | Year | 8,333 | 0.5400\% | 9.00 | (405) | $(8,738)$ |


|  | 2010 |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| May | Year | 8,333 | 0.5400\% | 8.00 | (360) |  |  | $(8,693)$ |
|  | 2010 |  |  |  |  |  |  |  |
| June | Year | 8,333 | 0.5400\% | 7.00 | (315) |  |  | $(8,648)$ |
|  | 2010 |  |  |  |  |  |  |  |
| July | Year | 8,333 | 0.5400\% | 6.00 | (270) |  |  | $(8,603)$ |
|  | 2010 |  |  |  |  |  |  |  |
| August | Year | 8,333 | 0.5400\% | 5.00 | (225) |  |  | $(8,558)$ |
|  | 2010 |  |  |  |  |  |  |  |
| September | Year | 8,333 | 0.5400\% | 4.00 | (180) |  |  | $(8,513)$ |
|  | 2010 |  |  |  |  |  |  |  |
| October | Year | 8,333 | 0.5400\% | 3.00 | (135) |  |  | $(8,468)$ |
|  | 2010 |  |  |  |  |  |  |  |
| November | Year | 8,333 | 0.5400\% | 2.00 | (90) |  |  | $(8,423)$ |
|  | 2010 |  |  |  |  |  |  |  |
| December | Year | 8,333 | 0.5400\% | 1.00 | (45) |  |  | $(8,378)$ |
|  | 2010 |  |  |  |  |  |  |  |
|  |  |  |  |  | Annual (3,510) |  |  | $(103,510)$ |
|  |  |  |  |  |  |  |  |  |
| 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 |  |  |  |  |  |  |  |
| Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months |  |  |  |  | Monthly |  |  |  |
| January | Year 2014 | 126,378 | 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) | $(10,926)$ |  | $\begin{aligned} & (21,666) \\ & (10,864) \end{aligned}$ |
| November | Year 2014 | 21,666 | 0.5700\% |  | (123) | $(10,926)$ |  |  |
| December Year 2014 |  | 10,864 | 0.5700\% |  | (62) | $(10,926)$ |  | $(10,864)$ 0 |
|  |  |  |  |  | $(4,731)$ | \$ $(131,109)$ |  |  |
| Total Amount of True-Up Adjustment for 2010 ATRR |  |  |  |  |  |  |  |  |  |
| Less Over (Under) Recovery Total Interest |  |  |  |  |  | \$ ${ }^{\text {S }}$ (100,000 ${ }^{(31,109)}$ |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |

## Appendix A.1.3




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


[^0]:    1 Pursuant to Order No. 714, this filing is submitted by PJM Interconnection, L.L.C. ("PJM") on behalf of AEPSC as part of an XML filing package that conforms with the Commission's regulations. PJM has agreed to make all filings on behalf of the PJM Transmission Owners in order to retain administrative control over the PJM Tariff. Thus, AEPSC has requested PJM submit this revised Attachment H-14B and H-20A in the eTariff system as part of PJM's electronic Intra PJM Tariff.

[^1]:    $7 \quad$ PJM already maintains, updates and regularly uses e-mail lists for all PJM members and affected state commissions.

[^2]:    (1) As per the eettlement agreement in Kentucky Case No. 2014-00396, the Company's recommended depreciation rates were to be used for Transmission Plant effective July $1,2015$.

[^3]:    Note 2: This adjustment will apply to AEP Ohio only. This adjustment will be in effect for the Annual Updates prepared in 2012, 2013, 2014,2015 and 2016

[^4]:    Note 2: This adjustment will apply to AEP Ohio only. This adjustment will be in effect for the Annual Updates prepared in 2012, 2013, 2014,2015 and 2016

