

AEPTCo subsidiaries in PJM
Transmission Cost of Service Formula Rate
Utilizing Actual/Projected FERC Form 1 Data

AEP Appalachian Transmission Company

For Twelve Months Ended 2019

Line No.						Transmission Amount
1	REVENUE REQUIREMENT (w/o incentives)	(ln 113)				\$3,780,644
2	REVENUE CREDITS	(Worksheet E, ln 8) (Note A)	Total	-	DA 1.00000	\$ -
3	Facility Credits under PJM OATT Section 30.9	Worksheet E, ln 9) (Note X)				0
4	REVENUE REQUIREMENT For All Company Facilities	(ln 1 less ln 2 plus ln 3)				\$ 3,780,644

MEMO: The Carrying Charge Calculations on lines 7 to 12 below are used in calculating project revenue requirements billed through PJM Schedule 12, Transmission Enhancement Charges. The total non-incentive revenue requirements for these projects shown on line 5 is included in the total on line 4.

5	Revenue Requirement for PJM Schedule 12 Facilities (w/o incentives) (Worksheet J/K)	-	DA	1.00000	\$ -
6	NET PLANT CARRYING CHARGE w/o intra-AEP charges or credits or ROE incentives (Note B)				
7	Annual Rate	((ln 1- ln 80)/((ln 33) x 100))			12.84%
8	Monthly Rate	(ln 7 / 12)			1.07%
9	NET PLANT CARRYING CHARGE ON LINE 7 , w/o depreciation or ROE incentives (Note B)				
10	Annual Rate	((ln 1- ln 80 - ln 83)/((ln 33) x 100))			10.91%
11	NET PLANT CARRYING CHARGE ON LINE 10, w/o Return, income taxes or ROE incentives (Note B)				
12	Annual Rate	((ln 1 - ln 80 - ln 83 - ln 108 - ln 109) /((ln 33) x 100))			1.51%
13	ADDITIONAL REVENUE REQUIREMENT for projects w/ incentive ROE's (Note B) (Worksheet J/K)				-
14	REVENUE REQUIREMENT FOR SCHEDULE 1A CHARGES				
15	Total Load Dispatch & Scheduling (Account 561)	Line 63 Below			14,000
16	Less: Load Dispatch - Scheduling, System Control and Dispatch Services (321.88.b)				
17	Less: Load Dispatch - Reliability, Planning & Standards Development Services (321.92.b)				
18	Total 561 Internally Developed Costs	(Line 15 - Line 16 - Line 17)			14,000

AEPTCo subsidiaries in PJM
Transmission Cost of Service Formula Rate
Utilizing Actual/Projected FERC Form 1 Data

AEP Appalachian Transmission Company

(1)		(2)	(3)	(4)		(5)
RATE BASE CALCULATION		Data Sources (See "General Notes")	TO Total NOTE C	Allocator		Total Transmission
Line No.						
19	GROSS PLANT IN SERVICE					
19	Transmission	(Worksheet A In 14.(d) & Ln 117)	29,702,538	DA	1.00000	29,702,538
20	Less: Transmission ARO (Enter Negative)	(Worksheet A In 14.(e))	-	TP	1.00000	-
21	General Plant	(Worksheet A In 14.(h))	13,077	W/S	1.00000	13,077
22	Less: General Plant ARO (Enter Negative)	(Worksheet A In 14.(i))	-	W/S	1.00000	-
23	Intangible Plant	(Worksheet A In 14.(j))	158,000	W/S	1.00000	158,000
24	TOTAL GROSS PLANT	(Sum of Lines: 19 to 23)	29,873,615	GP=	1.000000	29,873,615
				GTD=	1.00000	
25	ACCUMULATED DEPRECIATION AND AMORTIZATION					
26	Transmission	(Worksheet A In 28.(d) & Ln 43.(b))	262,846	TP1=	1.00000	262,846
27	Less: Transmission ARO (Enter Negative)	(Worksheet A In 28.(e))	-	TP1=	1.00000	-
28	General Plant	(Worksheet A In 28.(h))	77	W/S	1.00000	77
29	Less: General Plant ARO (Enter Negative)	(Worksheet A In 28.(i))	-	W/S	1.00000	-
30	Intangible Plant	(Worksheet A In 28.(j))	24,000	W/S	1.00000	24,000.00
31	TOTAL ACCUMULATED DEPRECIATION	(Sum of Lines: 26 to 30)	286,923			286,923
32	NET PLANT IN SERVICE					
33	Transmission	(In 19 + In 20 - In 26 - In 27)	29,439,692			29,439,692
34	General Plant	(In 21 + In 22 - In 28 - In 29)	13,000			13,000
35	Intangible Plant	(In 23 - In 30)	134,000			134,000
36	TOTAL NET PLANT IN SERVICE	(Sum of Lines: 33 to 35)	29,586,692	NP=	1.000000	29,586,692
37	DEFERRED TAX ADJUSTMENTS TO RATE BASE	(Note D)				
38	Account No. 281.1 (enter negative)	(Worksheet B, In 2 & In 5.E)	-	NA		-
39	Account No. 282.1 (enter negative)	(Worksheet B, In 7 & In 10.E)	(551,652)	DA		(279,025)
40	Account No. 283.1 (enter negative)	(Worksheet B, In 12 & In 15.E)	(140,348)	DA		(108,642)
41	Account No. 190.1	(Worksheet B, In 17 & In 20.E)	71,000	DA		69,248
42	Account No. 255 (enter negative)	(Worksheet B, In 24 & In 25.E)	-	DA		-
43	TOTAL ADJUSTMENTS	(sum Ins 38 to 42)	(621,000)			(318,419)
44	PLANT HELD FOR FUTURE USE	(Worksheet A In 44.(e)) In 45.(e))	-	DA		-
45	REGULATORY ASSETS	(Worksheet A In 51.(e))	-	DA		-
46	UNFUNDED RESERVES (ENTER NEGATIVE) (NOTE Y)	(Worksheet A In 54.(e))		W/S	1.00000	
47	WORKING CAPITAL	(Note E)				
48	Cash Working Capital	(1/8 * In 66)	31,000			31,000
49	Transmission Materials & Supplies	(Worksheet C, In 2.(F))	19,000	TP	1.00000	19,000
50	A&G Materials & Supplies	(Worksheet C, In 3.(F))	-	W/S	1.00000	-
51	Stores Expense	(Worksheet C, In 4.(F))	-	GP	1.00000	-
52	Prepayments (Account 165) - Labor Allocated	(Worksheet C, In 8.(G))	-	W/S	1.00000	-
53	Prepayments (Account 165) - Gross Plant	(Worksheet C, In 8.(F))	-	GP	1.00000	-
54	Prepayments (Account 165) - Transmission Only	(Worksheet C, In 8.(E))	-	DA	1.00000	-
55	Prepayments (Account 165) - Unallocable	(Worksheet C, In 8.(D))	-	NA	0.00000	-
56	TOTAL WORKING CAPITAL	(sum Ins 48 to 55)	50,000			50,000
57	IPP CONTRIBUTIONS FOR CONSTRUCTION	(Note F) (Worksheet D, In 8.B)	-	DA	1.00000	-
58	RATE BASE (sum Ins 36, 43, 44, 45, 46, 56, 57)		29,015,692			29,318,274

AEPTCo subsidiaries in PJM
Transmission Cost of Service Formula Rate
Utilizing Actual/Projected FERC Form 1 Data

AEP Appalachian Transmission Company

(1)		(2)	(3)	(4)		(5)
EXPENSE, TAXES, RETURN & REVENUE REQUIREMENTS CALCULATION		Data Sources (See "General Notes")	TO Total	Allocator		Total Transmission
Line No.						
59	OPERATION & MAINTENANCE EXPENSE					
60	Customer Related Expense	322 & 323.164,171,178.b	-			
61	Regional Marketing Expenses	322.131.b	-			
62	Transmission	321.112.b	262,000			
63	TOTAL O&M EXPENSES	(sum Ins 59 to 61)	262,000			
64	Less: Total Account 561	(Note G) (Worksheet F, In 14.C)	14,000			
65	Less: Account 565	(Note H) 321.96.b	-			
66	Less: Regulatory Deferrals & Amortizations	(Note I) (Worksheet F, In 4.C)	-			
66	Total O&M Allocable to Transmission	(Ins 61 - 63 - 64 - 65)	248,000	TP	1.00000	248,000
67	Administrative and General					
68	Less: Acct. 924, Property Insurance	323.185.b	151,000			
69	Acct. 928, Reg. Com. Exp.	323.189.b	-			
70	Acct. 930.1, Gen. Advert. Exp.	323.191.b	-			
71	Acct. 930.2, Misc. Gen. Exp.	323.192.b	-			
72	Balance of A & G	(In 67 - sum In 68 to In 71)	151,000	W/S	1.00000	151,000
73	Plus: Acct. 924, Property Insurance	(In 68)	-	GP(h)	1.00000	-
74	Acct. 928 - Transmission Specific	Worksheet F In 21.(E) (Note L)	-	TP	1.00000	-
75	Acct 930.1 - Only safety related ads -Direct	Worksheet F In 38.(E) (Note L)	-	TP	1.00000	-
76	Acct 930.2 - Misc Gen. Exp. - Trans	Worksheet F In 43.(E) (Note L)	-	DA	1.00000	-
77	PBOP Adjustment	Worksheet O Ln 16.(B), (Note K & M)	14,558	W/S	1.00000	14,558
78	A & G Subtotal	(sum Ins 72 to 77)	165,558			165,558
79	O & M EXPENSE SUBTOTAL	(In 66 + In 78)	413,558			413,558
80	Plus: Transmission Lease Payments To Affiliates To Affiliates in Acct 565 (Company Records) (Note H)		-	DA	1.00000	-
81	TOTAL O & M EXPENSE	(In 79 + In 80)	413,558			413,558
82	DEPRECIATION AND AMORTIZATION EXPENSE					
83	Transmission	336.7.f	570,000	TP1	1.00000	570,000
84	General	336.10.f	1,000	W/S	1.00000	1,000
85	Intangible	336.1.f	30,000	W/S	1.00000	30,000
86	TOTAL DEPRECIATION AND AMORTIZATION	(Ln 83+84+85)	601,000			601,000
87	TAXES OTHER THAN INCOME					
88	Labor Related	(Note N)				
89	Payroll	Worksheet H In 23.(D)	-	W/S	1.00000	-
90	Plant Related					
91	Property	Worksheet H-p2 In 3.(C) & In 3.(G)	165,000	DA	1.00000	-
92	Gross Receipts/Sales & Use	Worksheet H In 23.(F)	-	NA	0.00000	-
93	Other	Worksheet H In 23.(E)	-	GP	1.00000	-
94	TOTAL OTHER TAXES	(sum Ins 89 to 93)	165,000			-
95	INCOME TAXES					
96	T=1 - [(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p) =	(Note O)	25.74%			
97	EIT=(T/(1-T)) * (1-(WCLTD/WACC)) =		24.74%			
98	where WCLTD=(In 136) and WACC = (In 139)					
99	and FIT, SIT & p are as given in Note O.					
100	GRCF=1 / (1 - T) = (from In 96)		1.3466			
101	Amortized Investment Tax Credit (enter negative)	(FF1 p.114, In 19.c)	-			
102	Excess Deferred Income Tax	(Note T)	(706)	NP(h)	1.00000	(706)
103	Tax Effect of Permanent and Flow-Through Differences	(Note T)	-	NP(h)	1.00000	-
104	Income Tax Calculation	(In 97 * In 109)	543,190			548,855
105	ITC adjustment	(In 100 * In 101)	-	NP(h)	1.00000	-
106	Excess Deferred Income Tax	(In 100 * In 102)	(951)			(951)
107	Tax Effect of Permanent and Flow-Through Differences	(In 100 * In 103)	-			-
108	TOTAL INCOME TAXES	(sum Ins 104 to 107)	542,239			547,904
109	RETURN ON RATE BASE (Rate Base*WACC)	(In 58 * In 139)	2,195,289			2,218,182
110	INTEREST ON IPP CONTRIBUTION FOR CONST. (Note F) (Worksheet D, In 2.(B))		-	DA	1.00000	-
111	(Gains) / Losses on Sales of Plant Held for Future Use (Worksheet N, In 4, Cols. ((F) & (H))		-			-
112	Tax Impact on Net Loss / (Gain) on Sales of Plant Held for Future Use (In 111 * In97)		-			-
113	TOTAL REVENUE REQUIREMENT		3,917,087			3,780,644
	(sum Ins 81, 86, 94, 108, 109, 110, 111, 112)					

AEPTCo subsidiaries in PJM
Transmission Cost of Service Formula Rate
Utilizing Actual/Projected FERC Form 1 Data

AEP Appalachian Transmission Company

SUPPORTING CALCULATIONS

In No.	TRANSMISSION PLANT INCLUDED IN PJM TARIFF									
114	Total transmission plant (In 19)									29,702,538
115	Less transmission plant excluded from PJM Tariff (Worksheet A, In 42.(d)) (Note P)									
116	Less transmission plant included in OATT Ancillary Services (Worksheet A, In 42, Col. (b)) (Note Q)									-
117	Transmission plant included in PJM Tariff (In 114 - In 115 - In 116)									29,702,538
118	Percent of transmission plant in PJM Tariff (In 117 / In 114)									TP= 1.00000
119	WAGES & SALARY ALLOCATOR (W/S) (Note R)									
120	Line Deliberately Left Blank									
121	Transmission	354.21.b	-	19,243	19,243	TP	1.00000	19,243		
122	Regional Market Expenses	354.22.b	-	-	-	NA	0.00000	-		
123	Line Deliberately Left Blank									
124	Other (Excludes A&G)	354.24,25,26.b	-	-	-	NA	0.00000	-		
125	Total	(sum Ins 121, 122, & 124)	-	19,243	19,243			19,243		
126	Transmission related amount									W/S= 1.00000
127	Actual (Uncapped) Capital Structure									
127	WEIGHTED AVERAGE COST OF CAPITAL (WACC)									
128	Long Term Interest	(Worksheet M, In.36, col.(d))						\$ 1,111,000		
129	Preferred Dividends	(Worksheet M, In. 45, col.(d))						-		
130	Development of Common Stock:									
131	Proprietary Capital	(Worksheet M, In. 14, col.(b))						26,778,462		
132	Less: Preferred Stock	(Worksheet M, In. 14, col.(c))						-		
133	Less: Account 216.1	(Worksheet M, In. 14, col.(d))						-		
134	Less: Account 219	(Worksheet M, In. 14, col.(e))						-		
135	Common Stock	(In 131 - In 132 - In 133 - In 134)						26,778,462		
136	Long Term Debt (Note S) Worksheet M, In 28, col. (g), In 37, col. (d))									
137	Preferred Stock (In 132)									
138	Common Stock (In 135)									
139	Total (Sum Ins 136 to 138)									
140	Capital Structure Equity Limit (Note Z)									55.00%

Capital Structure Percentages				Cost		Weighted
\$	Actual	Cap Limit	(Note S)			
24,538,462	47.82%	47.82%	4.53%			0.0216
-	0.00%	0.00%	0.00%			0.0000
26,778,462	52.18%	52.18%	10.35%			0.0540
51,316,923	100.00%					
WACC=						0.0757

AEPTCo subsidiaries in PJM
Transmission Cost of Service Formula Rate
Utilizing Actual/Projected FERC Form 1 Data

AEP Appalachian Transmission Company

Letter

Notes

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

A	Revenue credits include: 1) Forfeited Discounts. 2) Miscellaneous Service Revenues. 3) Rental revenues earned on assets included in the rate base. 4) Revenues for associated business projects provided by employees whose labor and overhead costs are in the transmission cost of service. 5) Other electric revenues. 6) Revenues for grandfathered PTP contracts included in the load divisor. 7) If AEP Transmission Companies have any directly assigned transmission facilities, the revenue credits in the formula rate shall include all revenues associated with those directly assigned transmission facilities, irrespective of whether the loads of the customer are included in the formula rate divisor; provided however, such addition to revenue credits shall not be reflected if the costs of such directly assigned transmission facilities are not included in the transmission plant balances on which the formula rate ATRR is based. See Worksheet E for details.
B	The annual and monthly net plant carrying charges on page 1 are used to compute the revenue requirement for RTEP sponsored upgrades or those projects receiving approved incentive-ROE's. Interest will be calculated based on Worksheet R and any over under recovery will be filed and posted as part of the informational filing.
C	Transmission Plant Balances in this study are projected or actual average 13 month balances.
D	The total-company balances shown for Accounts 281, 282, 283, 190 only reflect ADIT that relates to utility operations. The balance of Account 255 is reduced by prior flow throughs and is completely excluded if the utility chose to utilize amortization of tax credits against FIT expense. An exception to this is pre-1971 ITC balances, which are required to be taken as an offset to rate base. Account 281 is not allocated. In compliance with FERC Rulemaking RM02-7-000, Asset Retirement Obligation deferrals have been removed from ratebase. Transmission ADIT allocations are shown on WS B. In compliance with FERC Rulemaking the calculation of ADIT in the annual projection will be performed in accordance with IRS regulation Section 1.167(l)-(h)(6)(ii). Detailed balances for the projected or actual period, distinguished between utility and non-utility balances, will be filed and posted as part of the informational filing. The company will not include the ADIT portion of deferred hedge gains and losses in rate base.
E	Cash Working Capital assigned to transmission is one-eighth of O&M allocated to transmission, as shown on line 66. It excludes: 1) Load Scheduling & Dispatch Charges in account 561 that are collected in the OATT Ancillary Services Revenue, as shown on line 63. 2) Costs of Transmission of Electricity by Others, as described in Note H. 3) The impact of state regulatory deferrals and amortizations, as shown on line 65 4) All A&G Expenses, as shown on line 78.
F	Consistent with Paragraph 657 of Order 2003-A, the amount on line 57 is equal to the balance of IPP System Upgrade Credits owed to transmission customers that made contributions toward the construction of System upgrades, and includes accrued interest and unreturned balance of contributions. The annual interest expense is included on line 110.
G	
H	Removes from the cost of service the Load Scheduling and Dispatch expenses booked to accounts 561.1 through 561.8. Expenses recorded in these accounts, with the exception of 561.4 & 561.8 (lines 16 & 17 above) are recovered in Schedule 1A, OATT ancillary services rates. See Worksheet F, lines 5 through 14, for descriptions and the Form 1 Source of these accounts' balances. Removes cost of transmission service provided by others to determine the basis of cash working capital on line 66. To the extent such service is incurred to provide the PJM service at issue, e.g. lease payments to affiliates, such costs are added back on line 80 to determine the total O&M collected in the formula. The amounts on line80 is also excluded in the calculation of the FCR percentage calculated on lines 6 through 12. The addbacks on line80 of activity recorded in 565 represents inter-company sales or purchases of transmission capacity necessary to meet each AEP company's transmission load relative to their available transmission capacity. The company records referenced on line80 is the AEP Appalachian Transmission Company general ledger.
I	Removes the impact of state regulatory deferrals or their amortization from Transmission O&M expense.
J	General Plant and Administrative & General expenses, other than in accounts 924, 928, and 930, will be functionalized based on the Wages & Salaries "W/S" allocator. The allocation basis for accounts 924, 928 and 930 are separately presented in the formula. A change in the allocation method for an account must be approved via a 205 filing with the FERC.
K	The Post-employment Benefit Other than Pension (PBOP) expense is fixed based on an approved ratio of PBOP expense to direct labor expense.
L	Expenses reported for these A&G accounts will be included in the cost of service only to the extent they are directly assignable to transmission service. Worksheet F allocates these expense items. Acct 928 Includes Regulatory Commission expenses itemized in FERC Form-1 at page 351, column H. FERC Assessment Fees and Annual Charges shall not be allocated to transmission. Only safety-related and educational advertising costs in Account 930.1 are included in the TCOS. Account 930.2 includes the expenses incurred by the transmission function for Associated Business Development revenues given as a credit to the TCOS on Worksheet E.
M	See note K above. Recoverable PBOP expense is based on a rate of \$(0.058) cents per dollar of direct labor. This rate may be adjusted up or down every four years based on a comparison of the Allowable TransCo PBOP Expense and the Actual PBOP Expense for a four year Historic and four year Projected period. If the over or under collection is greater than plus or minus 20% of the recoverable amount, an adjustment will be proposed in a Section 205 rate filing.
N	Includes only FICA, unemployment, highway, property and other assessments. Gross receipts, sales & use and taxes related to income are excluded.
O	The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = the percentage of federal income tax deductible for state income taxes. See Worksheet G for the development of the Company's composite SIT. A utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f) (In 101) multiplied by (1/(1-T)). If the applicable tax rates are zero enter 0. Inputs Required: FIT = 21.00% SIT= 6.00% (State Income Tax Rate or Composite SIT, Worksheet G) p = 0.00% (percent of federal income tax deductible for state purposes)
P	The formula rate shall reflect the applicable state and federal statutory tax rates in effect during the period the calculated estimated unit charges are applicable. If the statutory tax rates change during such period, the effective tax rates used in the formula shall be weighted by the number of days the pre-change rate and post-change rate each is in effect. Removes plant excluded from the OATT because it does not meet the PJM's definition of Transmission Facilities or is otherwise ineligible to be recovered under the OATT.
Q	Removes transmission plant (e.g. step-up transformers) included in the development of OATT ancillary service rates and not already removed for reasons indicated in Note P.
R	Includes functional wages & salaries billed by AEP Service Corporation for support of the operating company.
S	Long Term Debt cost rate = long-term interest (Ln 128)/average long term debt (Ln 136). Preferred Stock cost rate = preferred dividends (Ln 129)/preferred outstanding (Ln 137). Common Stock cost rate (ROE) = 10.35%, per the Settlement in FERC Docket No. EL17-13. It includes an additional 50 basis points for PJM RTO membership. All Transmission Companies other than AEP Appalachian Transmission Company utilize their own capital structure and costs as shown on Worksheet M. The calculations on Worksheet M will use the projected or actual 13 month average balances of long-term debt, common and preferred equity and calendar year long term debt interest expenses, preferred dividends and approved ROE. The long term debt balances and long term debt cost rate shall not include any amounts related to hedging activity. As shown on Worksheet Q, the AEP Appalachian Transmission Company capital structure and weighted cost of capital (WACC) shall be based on the weighted composite of the AEP East Operating Companies beginning and ending average outstanding LTD and PS issuances with the common equity portion in Docket No. ER08-1329, and (2) the weighted composite LTD and PS cost using projected or actual calendar year LTD expense and PS dividends of the AEP East Operating Companies excluding all interest rate hedging costs and/or gains, until the Company establishes its own actual capital structure.
T	
U	Excess / (Deficit) Deferred Income Taxes will be amortized over the average remaining life of the assets to which it relates, unless the Commission requires a different amortization period. The Tax Effect of Permanent Differences captures the differences in the income taxes due under the Federal and State tax calculations that are not the result of a timing difference, including but not limited to depreciation related to capitalized AFUDC equity and meals and entertainment deductions. The Tax Effect of Flow-Through differences captures current tax expense related to timing differences on items for which tax deductions were used to reduce customer rates through the use of flow-through accounting in a prior period. Transmission balances for the projected or actual period, will be filed and posted as part of the informational filing.
V	Cash investment in prepaid pension and benefits recorded in FERC Account 165 is permitted to be included in the formula. A labor expense allocation factor will be used to allocate total company costs. All other
W	The formula rate shall allocate property tax expense based on the as filed net plant cost allocation method detailed on Worksheet H. AEP Transmission Companies will record depreciation expense using composites of the depreciation rates shown on Worksheet P which rates will not be changed absent a Section 205 or 206 filing at FERC to seek a change in depreciation rates. No other changes to the formula rate may be included in that filing.
X	Under Section 30.9 of the PJM OATT, a network customer that owns existing transmission facilities that are integrated with the Transmission Provider's Transmission System may be eligible to receive consideration either through a billing credit or some other mechanism. Calculation of any credit under this subsection, pursuant to approval by FERC for inclusion in this formula rate for collection on behalf of the network customer, shall be addressed in either the Network Customer's Service Agreement or any other agreement between the parties.
Y	The cost of service will make a rate base adjustment to remove unfunded reserves associated with contingent liabilities recorded to Accounts 228.1-228.4 from rate base.
Z	Per the settlement in EL17-13, equity is limited to 55% in of the Company's capital structure. If the percentage of actual equity exceeds the cap, the excess is included as long term debt in the capital structure.

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet A Rate Base
AEP Appalachian Transmission Company

		Gross Plant In Service				
Line No	Month (a)	Transmission (d)	Transmission ARO (e)	General (h)	General ARO (i)	Intangible (j)
	(Note A)	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 58	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 57	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 99	FF1, page 207 Col.(g) & pg. 206 Col. (b), ln 98	FF1, page 205 Col.(g) & pg. 204 Col. (b), ln 5
1	December Prior to Rate Year	17,032,000		1,000		70,000
2	January	18,584,000		3,000		91,000
3	February	19,454,000		5,000		113,000
4	March	19,636,000		7,000		135,000
5	April	19,667,000		8,000		138,000
6	May	19,697,000		8,000		142,000
7	June	19,728,000		8,000		146,000
8	July	19,763,000		9,000		149,000
9	August	19,895,000		14,000		161,000
10	September	20,124,000		20,000		182,000
11	October	20,446,000		24,000		211,000
12	November	85,899,000		29,000		242,000
13	December of Rate Year	86,208,000		34,000		274,000
14	Average of the 13 Monthly Balances	29,702,538	-	13,077	-	158,000

		Accumulated Depreciation				
Line No	Month (a)	Transmission (d)	Transmission ARO (e)	General (h)	General ARO (i)	Intangible (j)
	(Note A)	FF1, page 219, ln 25, Col. (b)	Company Records (Included in total in Column (d))	FF1, page 219, ln 28, Col. (b)	Company Records (Included in total in Column (h))	FF1, page 200, ln 21, Col. (b)
15	December Prior to Rate Year	61,000		-		11,000
16	January	89,000		-		13,000
17	February	120,000		-		14,000
18	March	153,000		-		16,000
19	April	185,000		-		18,000
20	May	218,000		-		21,000
21	June	251,000		-		23,000
22	July	284,000		-		25,000
23	August	317,000		-		28,000
24	September	350,000		-		31,000
25	October	383,000		-		34,000
26	November	418,000		-		37,000
27	December of Rate Year	588,000		1,000		41,000
28	Average of the 13 Monthly Balances	262,846	-	77	-	24,000

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet A Rate Base
AEP Appalachian Transmission Company

Line No	Month (a)	OATT Ancillary Services (GSU) Plant In Service (b)	OATT Ancillary Services (GSU) Accumulated Depreciation (c)	Excluded Plant - Plant In Service (d)	Excluded Plant - Accumulated Depreciation (e)
	(Note A)	Company Records (included in total in column (d) of gross plant above)	Company Records (included in total in column (d) of accumulated depreciation above)	Company Records	Company Records
29	December Prior to Rate Year	-	-	-	-
30	January	-	-	-	-
31	February	-	-	-	-
32	March	-	-	-	-
33	April	-	-	-	-
34	May	-	-	-	-
35	June	-	-	-	-
36	July	-	-	-	-
37	August	-	-	-	-
38	September	-	-	-	-
39	October	-	-	-	-
40	November	-	-	-	-
41	December of Rate Year	-	-	-	-
42	Average of the 13 Monthly Balances	-	-	-	-

43 Transmission Accumulated Depreciation net of GSU 262,846

<u>Plant Held For Future Use</u>		<u>Source of Data</u>	<u>Balance @ December 31, 2019</u>	<u>Balance @ December 31, 2018</u>	<u>Average Balance for 2019</u>
(a)	(b)		(c)	(d)	(e)
44 <u>Plant Held For Future Use</u>	FF1, page 214, ln 47, Col. (d)		-	-	-
45 <u>Transmission Plant Held For Future Use (Included in total on line 4</u>	Company Records - Note 1		-	-	-

Regulatory Assets and Liabilities Approved for Recovery In Ratebase

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

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

Unfunded Reserves Summary (Company Records)

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet A Rate Base
AEP Appalachian Transmission Company

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

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

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet B Supporting ADIT and ITC Balances
AEP Appalachian Transmission Company

<u>Line Number</u>	<u>(A) Description</u>	<u>(B) Source</u>	<u>(C) Balance @ December 31, 2019</u>	<u>(D) Balance @ December 31, 2018</u>	<u>(E) Average Balance for 2019</u>
1	<u>Account 281</u>				
2	Year End Utility Deferrals	FF1, p. 272 - 273, ln 8, Col. (k)	-	-	-
3	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 4 (Note 1)	-	-	-
4	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 3 (Note 1)	-	-	-
5	Transmission Related Deferrals	Ln 2 - ln 3 - ln 4	-	-	-
6	<u>Account 282</u>				
7	Year End Utility Deferrals	FF1, p. 274 - 275, ln 5, Col. (k)	871,136	232,168	551,652
8	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 7 (Note 1)	-	-	-
9	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 6 (Note 1)	444,113	101,142	272,627
10	Transmission Related Deferrals	Ln 7 - ln 8 - ln 9	427,023	131,026	279,025
11	<u>Account 283</u>				
12	Year End Utility Deferrals	FF1, p. 276 - 277, ln 9, Col. (k)	154,864	125,832	140,348
13	Less: ARO Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 13 (Note 1)	-	-	-
14	Less: Other Excluded Deferrals	WS B-1 - Actual Stmt. AF Ln. 12 (Note 1)	31,706	31,706	31,706
15	Transmission Related Deferrals	Ln 12 - ln 13 - ln 14	123,157	94,126	108,642
16	<u>Account 190</u>				
17	Year End Utility Deferrals	FF1, p. 234, ln 8, Col. (c)	71,000	71,000	71,000
18	Less: ARO Related Deferrals	WS B-2 - Actual Stmt. AG Ln. 4 (Note 1)	-	-	-
19	Less: Other Excluded Deferrals	WS B-2 - Actual Stmt. AG Ln. 3 (Note 1)	1,752	1,752	1,752
20	Transmission Related Deferrals	Ln 17 - ln 18 - ln 19	69,248	69,248	69,248
21	<u>Account 255</u>				
22	Year End ITC Balances	FF1, p. 266-267, ln 8, Col. (h)	-	-	-
23	Less: Balances Not Qualified for Ratebase	Company Records - Note 1	-	-	-
24	ITC Balances Includeable in Ratebase	Ln 22 - ln 23	-	-	-
25	Transmission Related Deferrals	WS B-1 - Actual Stmt. AF Ln. 20 (Note 1)	-	-	-

NOTE 1 On this worksheet, "Company Records" refers to AEP's tax forecast and accounting ledger. The PTRR will use projected ending balances and reflect proration required by IRS Letter Rule Section I.167(I)-I(h)(6)(ii). Line item detail of actual deferred tax items will be included on Work

NOTE 2 ADIT balances should exclude balances related to hedging activity.

5.01
5.02
5.03
5.04
5.05
5.06
5.07
5.08
5.09
5.10
5.11
5.12
5.13
5.14
5.15
5.16
5.17
5.18
5.19
5.20
5.21
5.22
5.23
5.24
5.25
5.26
5.27
5.28
5.29
5.30
5.31
5.32
5.33
5.34
5.35
5.36
5.37
5.38
5.39
5.40
5.41

[illegible]

**AEP Appalachian Transmission Company
ACCUMULATED DEFERRED INCOME TAX IN ACCOUNT 190 - Actual Cycle Only
PERIOD ENDED DECEMBER 31, 2019**

DEBIT (CREDIT)

[illegible]

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet C Supporting Working Capital Rate Base Adjustments
AEP Appalachian Transmission Company

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
Materials & Supplies								
Line Number		Source	Balance @ December 31, 2019	Balance @ December 31, 2018	Average Balance for 2019			
1								
2	Transmission Materials & Supplies	FF1, p. 227, ln 8, Col. (c) & (b)	19,000	19,000	19,000			
3	General Materials & Supplies	FF1, p. 227, ln 11, Col. (c) & (b)			-			
4	Stores Expense (Undistributed) - Account 163	FF1, p. 227, ln 16, Col. (c) & (b)			-			
Prepayment Balance Summary (Note 1)								
5		Average of YE Balance	Excludable Balances	100% Transmission Related	Transmission Plant Related	Transmission Labor Related	Total Included in Ratebase (E)+(F)+(G)	
6	Totals as of December 31, 2019	0	0	0	0	0	0	
7	Totals as of December 31, 2018	0	0	0	0	0	0	
8	Average Balance	-	-	-	-	-	-	

Prepayments Account 165 - Balance @ 12/31/2019										
9	<u>Acc. No.</u>	<u>Description</u>	<u>2019</u> <u>YE Balance</u>	<u>Excludable</u> <u>Balances</u>	<u>100%</u> <u>Transmission</u> <u>Related</u>	<u>Transmission</u> <u>Plant</u> <u>Related</u>	<u>Transmission</u> <u>Labor</u> <u>Related</u>	<u>Total Included</u> <u>in Ratebase</u> <u>(E)+(F)+(G)</u>	<u>Explanation</u>	
10				-		-		-		
11				-		-		-		
12				-		-		-		
13				-		-		-		
14				-		-		-		
15				-		-		-		
16				-		-		-		
17				-		-		-		
18				-		-		-		
19				-		-		-		
20				-		-		-		
21				-		-		-	-	-
22				-		-		-	-	-
23				-		-		-	-	-
24				-		-		-	-	-
25				-		-		-	-	-
Subtotal - Form 1, p 111.57.c			0	0	0	0	0	0		

Prepayments Account 165 - Balance @ 12/31/ 2018									
	Acc. No.	Description	2018 YE Balance	Excludable Balances	100% Transmission Related	Transmission Plant Related	Transmission Labor Related	Total Included in Ratebase (E)+(F)+(G)	Explanation
26									
27						0		-	
28				-		-		-	
29				-		-		-	
30				-				-	
31				-				-	
32				-				-	
33				-				-	
34				-				-	
35								-	
34				-				-	
35				-		-		-	
36				-		-	-	-	
37				-			-	-	
38				-			-	-	
39				-			-	-	
40							-	-	
		Subtotal - Form 1, p 111.57.d	0	0	0	0	0	0	

Note 1: Prepayment Balance will not include: (i) federal and state income tax payments made to offset additional tax liabilities resulting (or expected to result) from prior federal or state audits or from the filing of one or more amended income tax returns; (ii) outstanding income tax refunds due to [company] resulting (or expected to result) from prior federal or state audits or from the filing of one or more amended income tax returns; or (iii) prepayments of federal or state income taxes which are attributable to income earned during periods prior to January 1 of the year depicted in the Balance Sheet (as described in USofA Account 236).

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet D Supporting IPP Credits
AEP Appalachian Transmission Company

<u>Line Number</u>	<u>(A) Description</u>	<u>(B) 2019</u>
1	Net Funds from IPP Customers 12/31/2018 (2019 FORM 1, P269)	-
2	Interest Expense (Company Records - Note 1)	-
3	Revenue Credits to Generators (Company Records - Note 1)	-
4	<u>Other Adjustments</u>	
5	Accounting Adjustment (Company Records - Note 1)	-
6		-
7	Net Funds from IPP Customers 12/31/2019 (2019 FORM 1, P269)	-
8	Average Balance for Year as Indicated in Column $((\text{Ln } 1 + \text{Ln } 7)/2)$	-

Note 1 On this worksheet Company Records refers to AEP Appalachian Transmission Company's general ledger.

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet E Supporting Revenue Credits
AEP Appalachian Transmission Company

<u>Line Number</u>	<u>Description</u>	<u>Total Company</u>	<u>Non- Transmission</u>	<u>Transmission</u>
1	Account 450, Forfeited Discounts (FF1 p.300.16.(b); Company Records - Note 1)		-	
2	Account 451, Miscellaneous Service Revenues (FF1 p.300.17.(b); Company Records - Note 1)		-	
3	Account 454, Rent from Electric Property (FF1 p.300.19.(b); Company Records - Note 1)		-	
4	Account 4560015, Associated Business Development - (Company Records - Notes 1, 2)		-	
5	Account 456 - Other Electric Revenues - (Company Records - Notes 1,2)	4,185,000	4,185,000	
5a	Account 457.1, Regional Control Service Revenues (FF1 p.300.23.(b); Company Records - Note 1)		-	
5b	Account 457.2, Miscellaneous Revenues (FF1 p.300.24.(b); Company Records - Note 1)		-	
6	Subtotal - Other Operating Revenues (Company Total equals (FF1 p. 300.26.(b))	4,185,000	4,185,000	-
7	Accounts 4470004 & 5, Revenues from Grandfathered Transmission Contracts - (Company Records - Note 1)		-	
8	Total Other Operating Revenues To Reduce Revenue Requirement	4,185,000	4,185,000	-
9	Facility Credits under PJM OATT Section 30.9			

Note 1 The total company data on this worksheet comes from the indicated FF1 source, or AEP Appalachian Transmission Company's general ledger. The functional amounts identified as transmission revenue also come from the general ledger.

Note 2 The total of line 4 and line 5 will equal total Account 456 as listed on FF1 p.300.21-22.(b)

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet F Supporting Allocation of Specific O&M or A&G Expenses
AEP Appalachian Transmission Company

Formula Rate
WS F Misc Exp
Page 16 of 29

	(A)	(B)	(C)	(D)	(E)	(F)
Line Number	Item No.	Description	2019 Expense	100% Non-Transmission	100% Transmission Specific	Explanation
Regulatory O&M Deferrals & Amortizations						
1						
2						
3						
4	Total		-			
Detail of Account 561 Per FERC Form 1						
5						
6	FF1 p 321.85.b	561.1 - Load Dispatch - Reliability	13,000			
7	FF1 p 321.86.b	561.2 - Load Dispatch - Monitor & Operate Trans System				
8	FF1 p 321.87.b	561.3 - Load Dispatch - Trans Service & Scheduling				
9	FF1 p 321.88.b	561.4 - Scheduling, System Control & Dispatch	1,000			
10	FF1 p 321.89.b	561.5 - Reliability, Planning and Standards Development				
11	FF1 p 321.90.b	561.6 - Transmission Service Studies				
12	FF1 p 321.91.b	561.7 - Generation Interconnection Studies				
13	FF1 p 321.92.b	561.8 - Reliability, Planning and Standards Development Services				
14	Total of Account 561		14,000			
Account 928						
15				-	-	
16				-	-	
17				-	-	
18				-	-	
19				-	-	
20				-	-	
21	Total (FERC Form 1 p.323.189.b)		-	-	-	
Account 930.1						
22				-	-	
23				-	-	
24				-	-	
25				-	-	
26				-	-	
27				-	-	
28				-	-	
29				-	-	
30				-	-	
31				-	-	
32				-	-	
33				-	-	
34				-	-	
35				-	-	
36				-	-	
37	-	-				
38	Total (FERC Form 1 p.323.191.b)		-	-	-	
Account 930.2						
39				-	-	
40				-	-	
41				-	-	
42				-	-	
43	Total (FERC Form 1 p.323.192.b)		-	-	-	

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet G Supporting - Development of Composite State Income Tax Rate
AEP Appalachian Transmission Company

1	Tennessee Excise Tax Rate	6.50%	
	Apportionment Factor - Note 1	0.00%	
	Effective State Tax Rate		0.00%
2	Virginia State Tax Rate	6.00%	
	Apportionment Factor - Note 1	100.00%	
	Effective State Tax Rate		6.00%
3	_____ Tax Rate		
	Apportionment Factor - Note 1		
	Effective State Tax Rate		0.00%
4	_____ Tax Rate		
	Apportionment Factor - Note 1		
	Effective State Tax Rate		0.00%
5	_____ Tax Rate		
	Apportionment Factor - Note 1		
	Effective State Tax Rate		0.00%
	Total Effective State Income Tax Rate		<u>6.00%</u>

Note 1 Apportionment Factors are determined as part of the Company's annual tax return for that jurisdiction.

Line No.	(A) Account	(B) Total Company NOTE 1	(C) Property	(D) Labor	(E) Other	(F) Non-Allocable
1	Revenue Taxes					
2	Gross Receipts Tax	-				-
3	Real Estate and Personal Property Taxes					
4	Real and Personal Property - West Virginia	-	-			
5	Real and Personal Property - Virginia	165,000	165,000			
6	Real and Personal Property - Tennessee	-	-			
7	Real and Personal Property - Other Jurisdictions	-	-			
8	Payroll Taxes					
9	Federal Insurance Contribution (FICA)	-		-		
10	Federal Unemployment Tax	-		-		
11	State Unemployment Insurance	-		-		
12	<i>Line Deliberately Left Blank</i>					
13	State Severance Taxes	-				-
14	Miscellaneous Taxes					
15	State Business & Occupation Tax	-				-
16	State Public Service Commission Fees	-			-	
17	State Franchise Taxes	-			-	
18	State Lic/Registration Fee	-			-	
19	Misc. State and Local Tax	-			-	
20	Sales & Use	-				-
21	Federal Excise Tax	-				-
22	Michigan Single Business Tax	-				-
23	Total Taxes by Allocable Basis	165,000	165,000	-	-	-

(Total Company Amount Ties to FFI p.114, Ln 14,(c))
NOTE 1: The detail of each total company number and its source in the FERC Form 1 is shown on WS H-1.

		Functional Property Tax Allocation				
		Lines 24-58 Column (B) Deliberately Left Blank	Transmission	Lines 24-58 Column (D) Deliberately Left Blank	General	Total
24	Functionalized Net Plant (TCOS, Lns 33 thru 36)	-	29,439,692	-	13,000	29,452,692
WEST VIRGINIA JURISDICTION						
25	Percentage of Plant in WEST VIRGINIA JURISDICTION					
26	Net Plant in WEST VIRGINIA JURISDICTION (Ln 24 * Ln 25)	-	-	-	-	-
27	Less: Net Value of Exempted Generation Plant					
28	Taxable Property Basis (Ln 26 - Ln 27)	-	-	-	-	-
29	Relative Valuation Factor					-
30	Weighted Net Plant (Ln 28 * Ln 29)	-	-	-	-	-
31	General Plant Allocator (Ln 30 / (Total - General Plant))	0.00%	100.00%	0.00%	-100.00%	
32	Functionalized General Plant (Ln 31 * General Plant)	-	-	-	-	-
33	Weighted WEST VIRGINIA JURISDICTION Plant (Ln 30 + 32)	-	-	-	-	-
34	Functional Percentage (Ln 33/Total Ln 33)	0.00%	100.00%	0.00%		
JURISDICTION						
35	Net Plant in JURISDICTION (Ln 24 - Ln 26)	-	29,439,692	-	13,000	29,452,692
36	Less: Net Value Exempted Generation Plant					
37	Taxable Property Basis	-	29,439,692	-	13,000	29,452,692
38	Relative Valuation Factor					
39	Weighted Net Plant (Ln 37 * Ln 38)	-	-	-	-	-
40	General Plant Allocator (Ln 39 / (Total - General Plant))	0.00%	100.00%	0.00%	-100.00%	
41	Functionalized General Plant (Ln 41 * General Plant)	-	-	-	-	-
42	Weighted JURISDICTION Plant (Ln 39 + 41)	-	-	-	-	-
43	Functional Percentage (Ln 42/Total Ln 42)	0.00%	100.00%	0.00%		

(A)		(B)	(C)	(D)		
Line No.	Annual Tax Expenses by Type (Note 1)	Total Company	FERC FORM 1 Tie-Back	FERC FORM 1 Reference		
1	Revenue Taxes					
2	Gross Receipts Tax	-		P.263.1 ln 7 (i) P.263.2 ln 3 (i) P.263.2 ln 4 (i)		
(A)		(B)	(C)	(D)	(E)	(F)
"Real Estate and Personal Property Tax Detail Annual Tax Expenses by Type (Note 1)"		Tax Year	Total Company	FERC FORM 1 Tie-Back	FERC FORM 1 Reference	Transmission Function (Note 2)
Real Estate and Personal Property Taxes Total						
3	(Ln 4 + Ln 5 + Ln 6 + Ln 7)		165,000			-
4	Real and Personal Property - West Virginia		-			-
						-
						-
						-
						-
						-
5	Real and Personal Property - Virginia		165,000			-
				165,000		-
						-
						-
						-
6	Real and Personal Property - Tennessee		-			-
						-
7	Real and Personal Property - Other Jurisdictions		-			-
						-

(A)		(B)	(C)	(D)	
Line No.	Annual Tax Expenses by Type (Note 1)	Total Company	FERC FORM 1 Tie-Back	FERC FORM 1 Reference	
8	Payroll Taxes				
9	Federal Insurance Contribution (FICA)	-		P.263 ln 6 (i)	
10	Federal Unemployment Tax	-		P.263 ln 9 (i)	
11	State Unemployment Insurance	-		P.263.1 ln 23 (i) P.263.2 ln 33 (i) P.263.3 ln 16 (i)	
12	<i>Line Left Deliberately Blank</i>				
13	State Severance Taxes	-			
14	Miscellaneous Taxes				
15	State Business & Occupation Tax	-		P.263 ln 21 (i) P.263 ln 22 (i)	
16	State Public Service Commission Fees	-		P.263 ln 26 (i) P.263 ln 27 (i) P.263.3 ln 20 (i)	
17	State Franchise Taxes	-		P.263 ln 12 (i) P.263 ln 13 (i) P.263.1 ln 34 (i) P.263.2 ln 10 (i) P.263.2 ln 11 (i) P.263.2 ln 38 (i) P.263.2 ln 39 (i) P.263.3 ln 27 (i) P.263.3 ln 28 (i) P.263.4 ln 20 (i) P.263.4 ln 27 (i)	
18	State Lic/Registration Fee	-		P.263.1 ln 15 (i) P.263.2 ln 13 (i) P.263.3 ln 8 (i) P.263.4 ln 21 (i)	
19	Misc. State and Local Tax	-		P.263.1 ln 12 (i)	
20	Sales & Use	-	-	P.263 ln 16 (i) P.263 ln 31(i) P.263.2 ln 16 (i) P.263.2 ln 17 (i) P.263.3 ln 21 (i)	
21	Federal Excise Tax	-		P.263 ln 13 (i) P.263 ln 14 (i)	
22	Michigan Single Business Tax	-			
23	Total Taxes by Allocable Basis (Total Company Amount Ties to FFI p.114, Ln 14,(c))	330,000	165,000		

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

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

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet I RESERVED
AEP Appalachian Transmission Company

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet J Supporting Calculation of PROJECTED PJM RTEP Project Revenue Requirement Billed to Benefiting Zones
AEP Appalachian Transmission Company

I. Calculate Return and Income Taxes with 0 basis point ROE increase for Projects Qualified for Regional Billing.

A. Determine 'R' with hypothetical 0 basis point increase in ROE for Identified Projects

ROE w/o incentives (TCOS, ln 138)			10.35%
Project ROE Incentive Adder			0
ROE with additional 0 basis point incentive			10.35%
Determine R (cost of long term debt, cost of preferred stock and equity percentage is from the TCOS, lns 136 through 138)			
	%	Cost	Weighted cost
Long Term Debt	47.82%	4.53%	2.165%
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	52.18%	10.35%	5.401%
R =			7.566%

B. Determine Return using 'R' with hypothetical 0 basis point ROE increase for Identified Projects.

Rate Base (TCOS, ln 58)	29,318,274
R (from A. above)	7.566%
Return (Rate Base x R)	2,218,182

C. Determine Income Taxes using Return with hypothetical 0 basis point ROE increase for Identified Projects.

Return (from B. above)	2,218,182
Effective Tax Rate (TCOS, ln 97)	24.74%
Income Tax Calculation (Return x CIT)	548,855
ITC Adjustment	-
Excess Deferred Income Tax	(951)
Tax Affect of Permanent Differences	-
Income Taxes	547,904

SUMMARY OF PROJECTED ANNUAL RTEP REVENUE REQUIREMENTS			
	Rev Require	W Incentives	Incentive Amounts
PROJECTED YEAR	2019	-	\$ -

II. Calculate Net Plant Carrying Charge Rate (Fixed Charge Rate or FCR) with hypothetical 0 basis point ROE increase.

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

Annual Revenue Requirement (TCOS, ln 1)	3,780,644
Lease Payments (TCOS, Ln 80)	-
Return (TCOS, ln 109)	2,218,182
Income Taxes (TCOS, ln 108)	547,904
Annual Revenue Requirement, Less Return and Taxes	1,014,558

B. Determine Annual Revenue Requirement with hypothetical 0 basis point increase in ROE.

Annual Revenue Requirement, Less Return and Taxes	1,014,558
Return (from I.B. above)	2,218,182
Income Taxes (from I.C. above)	547,904
Annual Revenue Requirement, with 0 Basis Point ROE increase	3,780,644
Depreciation & Amortization (TCOS, ln 83)	570,000
Annual Rev. Req, w/0 Basis Point ROE increase, less Depreciation	3,210,644

C. Determine FCR with hypothetical 0 basis point ROE increase.

Net Transmission Plant (Projected TCOS, ln 33)	29,439,692
Annual Revenue Requirement, with 0 Basis Point ROE increase	3,780,644
FCR with 0 Basis Point increase in ROE	12.84%
Annual Rev. Req, w / 0 Basis Point ROE increase, less Dep.	3,210,644
FCR with 0 Basis Point ROE increase, less Depreciation	10.91%
FCR less Depreciation (TCOS, ln 10)	10.91%
Incremental FCR with 0 Basis Point ROE increase, less Depreciation	0.00%

III. Calculation of Composite Depreciation Rate

Average Transmission Plant Balance for 2019 TCOS, ln 19	29,702,538
Annual Depreciation and Amortization Expense (TCOS, ln 83)	570,000
Composite Depreciation Rate	1.92%
Depreciable Life for Composite Depreciation Rate	52.11
Average Life in Whole Years	52

Note 1: Until AEP Appalachian Transmission Company establishes Transmission plant in service the depreciation expense component of the carrying charge will be calculated as in the Operating Company formula approved in Docket No. ER08-1329. The calculation for AEP Appalachian Transmission Company is shown on Worksheet P.

AEP Appalachian Transmission Company 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:

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

[illegible]

CUMULATIVE HISTORY OF PROJECTED ANNUAL REVENUE REQUIREMENTS:				
CUMULATIVE HISTORY OF PROJECTED ANNUAL REVENUE REQUIREMENTS: INPUT PROJECTED ARR (WITH & WITHOUT INCENTIVES) FROM EACH PRIOR YEAR TEMPLATE BELOW TO MAINTAIN HISTORY OF PROJECTED ARRS OVER THE LIFE OF THE PROJECT.				
RTEP Projected Rev. Req't.From Prior Year Template w/o Incentives		RTEP Projected Rev. Req't.From Prior Year Template with Incentives **		

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

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

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

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet L RESERVED
AEP Appalachian Transmission Company

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital
AEP Appalachian Transmission Company

Line No	Month (a)	Average Balance of Common Equity				Average Balance of Common Equity (f)=(b)-(c)-(d)-(e)
		Proprietary Capital (b)	Less: Preferred Stock (c)	Less Undistributed Sub Earnings (Acct 216.1) (d)	Less AOCI (Acct 219.1) (e)	
	(Note A)	(FF1 112.16)	(FF1 250-251)	(FF1 112.12)	(FF1 112.15)	
1	December Prior to Rate Year	25,624,000	-	-	-	25,624,000
2	January	25,825,000	-	-	-	25,825,000
3	February	26,000,000	-	-	-	26,000,000
4	March	26,196,000	-	-	-	26,196,000
5	April	26,385,000	-	-	-	26,385,000
6	May	26,599,000	-	-	-	26,599,000
7	June	26,859,000	-	-	-	26,859,000
8	July	27,044,000	-	-	-	27,044,000
9	August	27,232,000	-	-	-	27,232,000
10	September	27,412,000	-	-	-	27,412,000
11	October	27,598,000	-	-	-	27,598,000
12	November	27,699,000	-	-	-	27,699,000
13	December of Rate Year	27,647,000	-	-	-	27,647,000
14	Average of the 13 Monthly Balances	26,778,462	-	-	-	26,778,462

Line No	Month (a)	Average Balance of Long Term Debt					Gross Proceeds Outstanding Long-Term Debt (g)=(b)-(c)+(d)+(e)-(f)
		Bonds (b)	Less: Reacquired Bonds (c)	Acct 223 LT Advances from Assoc. Companies (d)	Acct 224 Senior Unsecured Notes (e)	Less: Fair Value Hedges (f)	
	(Note A)	(FF1 112.18)	(FF1 112.19)	(FF1 112.20)	(FF1 112.21)	FF1, page 257, Col. (h) - Note 1	
15	December Prior to Rate Year	-	-	-	15,000,000	-	15,000,000
16	January	-	-	-	15,000,000	-	15,000,000
17	February	-	-	-	15,000,000	-	15,000,000
18	March	-	-	-	15,000,000	-	15,000,000
19	April	-	-	-	15,000,000	-	15,000,000
20	May	-	-	-	30,500,000	-	30,500,000
21	June	-	-	-	30,500,000	-	30,500,000
22	July	-	-	-	30,500,000	-	30,500,000
23	August	-	-	-	30,500,000	-	30,500,000
24	September	-	-	-	30,500,000	-	30,500,000
25	October	-	-	-	30,500,000	-	30,500,000
26	November	-	-	-	30,500,000	-	30,500,000
27	December of Rate Year	-	-	-	30,500,000	-	30,500,000
28	Average of the 13 Monthly Balances	-	-	-	24,538,462	-	24,538,462

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

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital
AEP Appalachian Transmission Company

Development of Cost of Long Term Debt Based on Average Outstanding Balance

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
29	Annual Interest Expense for 2019						
30	Interest on Long Term Debt - Accts 221 - 224 (256-257.33.i)			1,111,000			
31	Less: Total Hedge Gain/Expense Accumulated from p 256-257, col. (i) of FERC Form 1 included in Ln 30 and shown in 43 below.			-			
32	Amort of Debt Discount & Expense - Acct 428 (117.63.c)			-			
33	Amort of Loss on Recquired Debt - Acct 428.1 (117.64.c)			-			
34	Less: Amort of Premium on Debt - Acct 429 (117.65.c)			-			
35	Less: Amort of Gain on Recquired Debt - Acct 429.1 (117.66.c)			-			
36	Total Interest Expense (Ln 30 - 31 + 32 + 33 - 34 - 35)			1,111,000			
37	Average Cost of Debt for 2019 (Ln 36/ Ln 28 (g))			4.53%			

CALCULATION OF HEDGE GAINS/LOSSES TO BE EXCLUDED FROM TCOS

38 AEP Appalachian Transmission Company may not include costs (or gains) related to interest hedging activities.

			Amortization Period		
	HEDGE AMOUNTS BY ISSUANCE (FROM p. 256-257 (i) of the FERC Form 1)	(Amortization of (Gain)/Loss for 2019	Remaining Unamortized Balance	Beginning	Ending
39					
40					
41					
42					
43	Net (Gain)/Loss Hedge Amortization To Be Removed	-	-	-	-

Development of Cost of Preferred Stock

44	Balance of Preferred Stock (Line 14 (c))	-
45	Dividends on Preferred Stock (Acct 437, FF1 118.29))	
46	Average Cost of Preferred Stock (Ln 45 / Ln 44)	#DIV/0!

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use
AEP Appalachian Transmission Company

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

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

AEPTCo subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Calculation of Post-employment Benefits Other than Pensions Expenses Allocable to Transmission Service
Worksheet O - PBOP Support
AEP Appalachian Transmission Company

PBOP	(A)	(B)
1	<u>Calculation of PBOP Expenses</u>	
2	<u>AEP System PBOP Rate</u>	
3	Total AEP System PBOP expenses	-\$62,529,765
4	Base Year relating to retired personnel	\$0
5	Amount allocated on Labor	-\$62,529,765
6	Total AEP System Direct Labor Expense	\$1,368,849,981
7	AEP System PBOP expense per dollar of direct labor (PBOP Rate)	-\$0.046
8	Currently Approved PBOP Rate	-\$0.058
9	Base PBOP TransCo labor expensed in current year	53,017
10	Allowable TransCo PBOP Expense for current year (Ln 8 * Ln 9)	-\$3,075
11	Direct PBOP Expense per Actuarial Report	\$0
12	Additional PBOP Ledger Entry (From Company Records)	\$0
13	Medicare Credit	\$0
14	PBOP Expenses From AEP Affiliates (From Company Records)	-\$17,633
15	Actual PBOP Expense (Sum Lines 11-14)	-\$17,633
16	PBOP Adjustment Line 10 less Line 15	\$14,558

Note: PBOP Expense will be calculated in accordance with the settlement in Docket ER10-355.

As part of the annual update process, AEP will provide to transmission customers and include in its informational filing an independently prepared actuarial report that includes a ten (10) year forecast of PBOP expenses. During the annual update process conducted for rate year 2018 and every four years thereafter, Worksheet O will be used to determine whether the PBOP allowance rate (\$PBOP per \$Direct O&M Labor) should be adjusted going forward for the next four years. If the annual actuarial report issued during the year of any PBOP rate review projects PBOP costs during the next four years that, when allocated to the AEP Transmission Companies based on their projected direct labor expenses over that same projected four-year period, absent a change in the PBOP Rate, will likely cause the AEP East Transmission Companies to over or under collect their cumulative PBOP expenses by more than 20% of the projected next four year's total PBOP expense, taking into account the net over or under collection of such expenses during the previous four years, the PBOP rate shall be adjusted. In order to determine whether continued use of the then approved PBOP rate is likely to result in the AEP Companies' incurrence of a cumulative allowance of PBOP costs under the formula rate will result in a cumulative over or under-recovery of actual PBOP expenses exceeding 20% over the subsequent four year period, Worksheet O will be used to determine (a) the level of cumulative over or under collections of PBOP expense during the time since the PBOP allowance rate was last set, including carrying costs based on the weighted average cost of capital each year from the formula rate actual transmission cost-of-service (b) the cumulative net present value of projected PBOP costs during the next four years as estimated by the then current actuarial report, assuming a discount rate equal to the actual transmission cost of service average cost of capital for the immediately prior calendar year and (c) the cumulative net present value of continued collections over the next four years based on the projected AEP Transmission Companies direct labor expenses and the then effective PBOP allowance rate assuming a discount rate equal to the prior year weighted average cost of capital. If the absolute value of (a)+(b)-(c) exceeds 20% of (b), then the PBOP allowance rate used in the formula rate calculation shall be changed to the value that will cause the projected result of (a)+(b)-(c) to equal zero. If the projected over or under collection during the next four years, (a)+(b)-(c), is less than 20% of (b), then the PBOP Rate will continue in effect for the next four years at the then effective rate. If it is determined through this procedure AEP Companies will over-recover or under-recover actual PBOP expenses by more than 20% over the subsequent four-year period, AEP shall make a filing under FPA Section 205 to change the PBOP Rate stated in the formula rate shown on Worksheet O. No other changes to the formula rate may be included in that filing.

AEPTCo subsidiaries in PJM
Worksheet - P
DEPRECIATION RATES
FOR TRANSMISSION PLANT PROPERTY ACCOUNTS
EFFECTIVE AS OF July 1, 2015

AEP Appalachian Transmission Company

	PLANT ACCT.	RATES Note 1
<u>TRANSMISSION PLANT</u>		
Land Rights	350.1	
Structures & Improvements	352.0	1.52%
Station Equipment	353.0	1.68%
Towers & Fixtures	354.0	1.54%
Poles & Fixtures	355.0	2.64%
Overhead Conductor	356.0	1.19%
Underground Conduit	357.0	1.45%
Underground Conductors	358.0	7.23%

Note: Per the Settlement in Docket No. ER10-355, Appendix A.1.2, AEP WEST VIRGINIA TRANSMISSION COMPANY shall use the depreciation rates shown above by FERC Account until such time as the FERC approves new depreciation rates pursuant to a Section 205 or 206 filing to change rates.

<u>Composite Depreciation Rate</u>	<u>APCo</u>	<u>WPCo</u>	<u>TOTAL</u>
T-Plant (FF1 206.58.g)	1,811,822,367	29,740,179	1,841,562,546
T-Plant (FF1 206.58.b)	1,752,450,105	25,887,202	1,778,337,307
Average (Ln 1+ Ln 2)/2	1,782,136,236	27,813,691	1,809,949,927
Depreciation (FF1 336.7.f)	29,597,240	752,928	30,350,168
Composite Depreciation (Ln 3 / Ln 4)			1.68%

Note: AEP WEST VIRGINIA TRANSMISSION COMPANY shall initially use the composite depreciation rate for APCo and WPCo shown above to estimate depreciation expense for transmission projects in Worksheets J and K until a composite depreciation rate based on transmission plant in service and depreciation expenses recorded by AEP WEST VIRGINIA TRANSMISSION COMPANY for its own transmission facilities can be calculated in AEP WEST VIRGINIA TRANSMISSION COMPANY's the first Annual Update including a True-Up TCOS.

AEPTCo Subsidiaries in PJM
Cost of Service Formula Rate Using Actual/Projected FF1 Balances
Worksheet R - True-up With Interest

Reconciliation Revenue Requirement For Year 2017 Available May 25, 2018		2017 Forecasted Revenue Requirement For Year 2017		True-up Adjustment Over (Under) Recovery
\$192,217	-	\$98,423	=	(\$93,794)

Interest Rate on Amount of Refunds or Surcharges (Note 1)	Over (Under) Recovery Plus Interest	Average Monthly Interest Rate	Months	Calculated Interest	Amortization	Surcharge (Refund) Owed
		0.3420%				

An over or under collection will be recovered prorata over 2017, held for 2018 and returned prorata over 2019

Calculation of Interest				Monthly		
January	Year 2017	(7,816)	0.3420%	12	321	8,137
February	Year 2017	(7,816)	0.3420%	11	294	8,110
March	Year 2017	(7,816)	0.3420%	10	267	8,083
April	Year 2017	(7,816)	0.3420%	9	241	8,057
May	Year 2017	(7,816)	0.3420%	8	214	8,030
June	Year 2017	(7,816)	0.3420%	7	187	8,003
July	Year 2017	(7,816)	0.3420%	6	160	7,977
August	Year 2017	(7,816)	0.3420%	5	134	7,950
September	Year 2017	(7,816)	0.3420%	4	107	7,923
October	Year 2017	(7,816)	0.3420%	3	80	7,896
November	Year 2017	(7,816)	0.3420%	2	53	7,870
December	Year 2017	(7,816)	0.3420%	1	27	7,843
					2,085	95,879
				Annual		
January through December	Year 2018	95,879	0.3420%	12	3,935	99,814

Over (Under) Recovery Plus Interest Amortized and Recovered Over 12 Months				Monthly		
January	Year 2019	(99,814)	0.3420%	341	(8,504)	91,651
February	Year 2019	(91,651)	0.3420%	313	(8,504)	83,461
March	Year 2019	(83,461)	0.3420%	285	(8,504)	75,242
April	Year 2019	(75,242)	0.3420%	257	(8,504)	66,996
May	Year 2019	(66,996)	0.3420%	229	(8,504)	58,721
June	Year 2019	(58,721)	0.3420%	201	(8,504)	50,418
July	Year 2019	(50,418)	0.3420%	172	(8,504)	42,087
August	Year 2019	(42,087)	0.3420%	144	(8,504)	33,727
September	Year 2019	(33,727)	0.3420%	115	(8,504)	25,338
October	Year 2019	(25,338)	0.3420%	87	(8,504)	16,921
November	Year 2019	(16,921)	0.3420%	58	(8,504)	8,475
December	Year 2019	(8,475)	0.3420%	29	(8,504)	(0)
				<hr/> 2,233		

True-Up Adjustment with Interest	102,047
Less Over (Under) Recovery	(93,794)
Total Interest	8,253

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