

AEPTCo subsidiaries in PJM  
 Transmission Cost of Service Formula Rate  
 Utilizing Historic Cost Data for 2016 with Year-End Rate Base Balances

**AEP WEST VIRGINIA TRANSMISSION COMPANY**

Line No.			Total	Allocator	Transmission Amount
178	REVENUE REQUIREMENT (w/o incentives)	(ln 313)			\$60,106,780
179	REVENUE CREDITS	(Note A) (Worksheet E)	-	DA 1.00000	\$ -
180	REVENUE REQUIREMENT For All Company Facilities	(ln 178 less ln 179)			<u>\$ 60,106,780</u>

**MEMO: The Carrying Charge Calculations on lines 183 to 188 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 181 is included in the total on line 180.**

181	Not applicable on this template				
182	NET PLANT CARRYING CHARGE w/o intra-AEP charges or credits or ROE incentives (Note B)				
183	Annual Rate	( (ln 178 - ln 279 - ln 280) / ln 225 x 100)			10.84%
184	Monthly Rate	(ln 183 / 12)			0.90%
185	NET PLANT CARRYING CHARGE ON LINE 183 , w/o depreciation or ROE incentives (Note B)				
186	Annual Rate	( (ln 178 - ln 279 - ln 280 - ln 285) / ln 225 x 100)			9.64%
187	NET PLANT CARRYING CHARGE ON LINE 186, w/o Return, income taxes or ROE incentives (Note B)				
188	Annual Rate	( (ln 178 - ln 279 - ln 280 - ln 285 - ln 308 - ln 309) / ln 225 x 100)			1.27%
189	Not applicable on this template				

REVENUE REQUIREMENT FOR SCHEDULE 1A CHARGES					
191	Total Load Dispatch & Scheduling (Account 561)	Line 262 Below			85,997
192	Less: Load Dispatch - Scheduling, System Control and Dispatch Services (321.88.b)				-
193	Less: Load Dispatch - Reliability, Planning & Standards Development Services (321.92.b)				-
194	Total 561 Internally Developed Costs	(Line 191 - Line 192 - Line 193)			<u>85,997</u>

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Line No.	(1) <b>RATE BASE CALCULATION</b>	(2) <b>Data Sources (See "General Notes")</b>	(3) <b>TO Total NOTE C</b>	(4) <b>Allocator</b>	(5) <b>Total Transmission</b>
195	GROSS PLANT IN SERVICE				
196	<i>Line Deliberately Left Blank</i>				
197	Transmission	(Worksheet A In 3.C & Ln 317)	565,270,816	DA	565,270,816
198	Less: Transmission ARO (Enter Negative)	(Worksheet A In 4.C & Ln 318)	-	TP 1.00000	-
199	Plus: Transmission Plant-in-Service Additions (Worksheet I)		N/A	NA 0.00000	N/A
200	Plus: Additional Trans Plant on Transferred Assets (Worksheet I)		N/A	NA 0.00000	N/A
201	<i>Line Deliberately Left Blank</i>				
202	<i>Line Deliberately Left Blank</i>				
203	General Plant	(Worksheet A In 7.C)	-	W/S 0.99482	-
204	Less: General Plant ARO (Enter Negative)	(Worksheet A In 8.C)	-	W/S 0.99482	-
205	Intangible Plant	(Worksheet A In 9.C)	2,976,059	W/S 0.99482	2,960,650
206	TOTAL GROSS PLANT	(Sum of Lines: 197 to 200 & 203 to 205)	568,246,875	<b>GP(h)= 0.999973</b> <b>GTD= 1.00000</b>	568,231,466
207	ACCUMULATED DEPRECIATION AND AMORTIZATION				
208	<i>Line Deliberately Left Blank</i>				
209	<i>Line Deliberately Left Blank</i>				
210	Transmission	(Worksheet A In 14.C & 28.C)	10,534,889	TP1= 1.00000	10,534,889
211	Less: Transmission ARO (Enter Negative)	(Worksheet A In 15.C)	-	TP1= 1.00000	-
212	Plus: Transmission Plant-in-Service Additions (Worksheet I)		N/A	DA 1.00000	N/A
213	Plus: Additional Projected Deprec on Transferred Assets (Worksheet I)		N/A	DA 1.00000	N/A
214	Plus: Additional Transmission Depreciation for 2017 (In 285)		N/A	TP1 1.00000	N/A
215	Plus: Additional General & Intangible Depreciation for 2017 (In 284 + In 285)		N/A	W/S 0.99482	N/A
216	Plus: Additional Accum Deprec on Transferred Assets (Worksheet I)		N/A	DA 1.00000	N/A
217	<i>Line Deliberately Left Blank</i>				
218	<i>Line Deliberately Left Blank</i>				
219	General Plant	(Worksheet A In 18.C)	-	W/S 0.99482	-
220	Less: General Plant ARO (Enter Negative)	(Worksheet A In 19.C)	-	W/S 0.99482	-
221	Intangible Plant	(Worksheet A In 20.C)	437,139	W/S 0.99482	434,876
222	TOTAL ACCUMULATED DEPRECIATION	(Sum of Lines: 210 to 216 & 219 to 221)	10,972,028		10,969,765
223	NET PLANT IN SERVICE				
224	<i>Line Deliberately Left Blank</i>				
225	Transmission	(In 197 + In 198 - In 210 - In 211)	554,735,927		554,735,927
226	Plus: Transmission Plant-in-Service Additions (In 199 - In 212)		N/A		N/A
227	Plus: Additional Trans Plant on Transferred Assets (In 200 - In 213)		N/A		N/A
228	Plus: Additional Transmission Depreciation for 2017 (-In 214)		N/A		N/A
229	Plus: Additional General & Intangible Depreciation for 2017 (-In 215)		N/A		N/A
230	Plus: Additional Accum Deprec on Transferred Assets (Worksheet I) (-In 216)		N/A		N/A
231	<i>Line Deliberately Left Blank</i>				
232	General Plant	(In 203 + In 204 - In 219 - In 220)	-		-
233	Intangible Plant	(In 205 - In 221)	2,538,920		2,525,774
234	TOTAL NET PLANT IN SERVICE	(Sum of Lines: 225 to 230 & 232, 233)	557,274,847	<b>NP(h)= 0.999976</b>	557,261,701
235	DEFERRED TAX ADJUSTMENTS TO RATE BASE	(Note D)			
236	Account No. 281.1 (enter negative)	(Worksheet B, In 2 & In 5.C)	-	NA	-
237	Account No. 282.1 (enter negative)	(Worksheet B, In 7 & In 10.C)	(103,890,429)	DA	(103,890,429)
238	Account No. 283.1 (enter negative)	(Worksheet B, In 12 & In 15.C)	(21,612,126)	DA	(21,612,126)
239	Account No. 190.1	(Worksheet B, In 17 & In 20.C)	10,960,041	DA	10,960,041
240	Account No. 255 (enter negative)	(Worksheet B, In 24 & In 25.C)	-	DA	-
241	TOTAL ADJUSTMENTS	(sum Ins 236 to 240)	(114,542,514)		(114,542,514)
242	PLANT HELD FOR FUTURE USE	(Worksheet A In 29.C & In 30.C)	-	DA	-
243	REGULATORY ASSETS	(Worksheet A In 41. (C))	-	DA	-
244	WORKING CAPITAL	(Note E)			
245	Cash Working Capital	(1/8 * In 265)	464,344		464,344
246	Transmission Materials & Supplies	(Worksheet C, In 2.(D))	-	TP 1.00000	-
247	A&G Materials & Supplies	(Worksheet C, In 3.(D))	-	W/S 0.99482	-
248	Stores Expense	(Worksheet C, In 4.(D))	-	GP(h) 0.99997	-
249	Prepayments (Account 165) - Labor Allocated	(Worksheet C, In 6.G)	570,051	W/S 0.99482	567,100
250	Prepayments (Account 165) - Gross Plant	(Worksheet C, In 6.F)	67,348	GP(h) 0.99997	67,346
251	Prepayments (Account 165) - Transmission Only	(Worksheet C, In 6.E)	-	DA 1.00000	-
252	Prepayments (Account 165) - Unallocable	(Worksheet C, In 6.D)	-	NA 0.00000	-
253	TOTAL WORKING CAPITAL	(sum Ins 245 to 252)	1,101,743		1,098,790
254	IPP CONTRIBUTIONS FOR CONSTRUCTION	(Note F) (Worksheet D, In 7.B)	-	DA 1.00000	-
255	RATE BASE (sum Ins 234, 241, 242, 243, 253, 254)		443,834,076		443,817,977

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	(1)	(2)	(3)	(4)	(5)
	EXPENSE, TAXES, RETURN & REVENUE REQUIREMENTS CALCULATION	Data Sources (See "General Notes")	TO Total	Allocator	Total Transmission
Line No.	OPERATION & MAINTENANCE EXPENSE				
256	<i>Line Deliberately Left Blank</i>				
257	<i>Line Deliberately Left Blank</i>				
258	Customer Related Expense	322 & 323.164,171,178.b	-		
259	Regional Marketing Expenses	322.131.b	-		
					<i>Per Settlement in FERC Docket No. ER10-355-000 , Attachment A-1 to Appendix B, pg. 26, C, 7a.</i>
260	Transmission	321.112.b	3,800,749		
261	TOTAL O&M EXPENSES	(sum Ins 258 to 260)	3,800,749		
262	Less: Total Account 561	(Note G) (Worksheet F, In 14.C)	85,997		
263	Less: Account 565	(Note H) 321.96.b	-		
264	Less: Regulatory Deferrals & Amortizations	(Note I) (Worksheet F, In 4.C)	-		
265	Total O&M Allocable to Transmission	(Ins 260 - 262 - 263 - 264)	3,714,752	TP 1.00000	3,714,752
					<i>Per Settlement in FERC Docket No. ER10-355-000 , Attachment A-1 to Appendix B, pg. 26, C, 7a.</i>
266	Administrative and General	323.197.b (Note J)	2,054,139		
267	Less: Acct. 924, Property Insurance	323.185.b	102,253		
268	Acct. 928, Reg. Com. Exp.	323.189.b	14,832		
269	Acct. 930.1, Gen. Advert. Exp.	323.191.b	-		
270	Acct. 930.2, Misc. Gen. Exp.	323.192.b	38,966		
271	Balance of A & G	(In 266 - sum In 267 to In 270)	1,898,088	W/S 0.99482	1,888,260
272	Plus: Acct. 924, Property Insurance	(In 267)	102,253	GP(h) 0.99997	102,250
273	Acct. 928 - Transmission Specific	Worksheet F In 20.(E) (Note L)	14,832	TP 1.00000	14,832
274	Acct 930.1 - Only safety related ads -Direct	Worksheet F In 37.(E) (Note L)	-	TP 1.00000	-
275	Acct 930.2 - Misc Gen. Exp. - Trans	Worksheet F In 42.(E) (Note L)	-	DA 1.00000	-
276	PBOP Adjustment	Worksheet O Ln 16 (B), (Note K & M)	229,969	W/S 0.99482	228,778
277	A & G Subtotal	(sum Ins 271 to 276)	2,245,141		2,234,120
278	O & M EXPENSE SUBTOTAL	(In 265 + In 277)	5,959,893		5,948,872
279	Plus: TEA Settlement in Account 565	Company Records (Note H)	-	DA 1.00000	-
280	Plus: Transmission Lease Payments To Affiliates in Acct 565 (Company Records) (Note H)		-	DA 1.00000	-
281	TOTAL O & M EXPENSE	(In 278 + In 279 + In 280)	5,959,893		5,948,872
282	DEPRECIATION AND AMORTIZATION EXPENSE				
283	<i>Line Deliberately Left Blank</i>				
284	<i>Line Deliberately Left Blank</i>				
285	Transmission	336.7.f	6,625,971	TP1 1.00000	6,625,971
286	Plus: Transmission Plant-in-Service Additions (Worksheet I)		N/A		N/A
287	Plus: Formation Costs Amortization	(Worksheet A In 35.C)	-	TP1 1.00000	-
288	General	336.10.f	-	W/S 0.99482	-
289	Intangible	336.1.f	363,428	W/S 0.99482	361,546
290	TOTAL DEPRECIATION AND AMORTIZATION	(Ln 285+286+288+289)	6,989,399		6,987,517
291	TAXES OTHER THAN INCOME	(Note N)			
292	Labor Related				
293	Payroll	Worksheet H In 23.(D)	-	W/S 0.99482	-
294	Plant Related				
295	Property	Worksheet H In 23.(C) & In 58.(C)	733,410	DA	733,410
296	Gross Receipts/Sales & Use	Worksheet H In 23.(F)	-	NA 0.00000	-
297	Other	Worksheet H In 23.(E)	-	GP(h) 0.99997	-
298	TOTAL OTHER TAXES	(sum Ins 293 to 297)	733,410		733,410
299	INCOME TAXES	(Note O)			
300	$T=1 - \{[(1 - SIT) * (1 - FIT)] / (1 - SIT * FIT * p)\} =$		39.23%		
301	$EIT=(T/(1-T)) * (1-(WCLTD/WACC)) =$		47.46%		
302	where WCLTD=(In 350) and WACC = (In 353)				
303	and FIT, SIT & p are as given in Note O.				
304	$GRCF=1 / (1 - T) =$ (from In 300)		1.6454		
305	Amortized Investment Tax Credit (enter negative)	(FF1 p.114, In 19.c)	-		
306	Income Tax Calculation	(In 301 * In 309)	14,946,261		14,945,719
307	ITC adjustment	(In 304 * In 305)	-	NP(h) 0.99998	-
308	TOTAL INCOME TAXES	(sum Ins 306 to 307)	14,946,261		14,945,719
309	RETURN ON RATE BASE (Rate Base*WACC)	(In 255 * In 353)	31,492,404		31,491,262.19
310	INTEREST ON IPP CONTRIBUTION FOR CONST. (Note F) (Worksheet D, In 2.(B))		-	DA 1.00000	-
311	(Gains) / Losses on Sales of Plant Held for Future Use (Worksheet N, In 4, Cols. ((F) & (H))		-		-
312	Tax Impact on Net Loss / (Gain) on Sales of Plant Held for Future Use (In 311 * In301)		-		-
313	TOTAL REVENUE REQUIREMENT	(sum Ins 281, 290, 298, 308, 309, 310, 311, 312)	60,121,367		60,106,780

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SUPPORTING CALCULATIONS

In No.	TRANSMISSION PLANT INCLUDED IN PJM TARIFF						
314	Total transmission plant	(In 197)					565,270,816
315	Less transmission plant excluded from PJM Tariff (Note P)						-
316	Less transmission plant included in OATT Ancillary Services (Worksheet A, In 23, Col. (C)) (Note Q)						-
317	Transmission plant included in PJM Tariff	(In 314 - In 315 - In 316)					565,270,816
318	Percent of transmission plant in PJM Tariff	(In 317 / In 314)				TP=	1.00000
319	WAGES & SALARY ALLOCATOR (W/S)	(Note R)	Direct Payroll	Payroll Billed from AEP Service Corp.	Total		
320	<i>Line Deliberately Left Blank</i>						
321	Transmission	354.21.b	-	1,095,196	1,095,196	TP	1.00000
322	Regional Market Expenses	354.22.b	-	-	-	NA	0.00000
323	<i>Line Deliberately Left Blank</i>						
324	Other (Excludes A&G)	354.24,25,26.b	-	5,700	5,700	NA	0.00000
325	Total	(sum Ins 321, 322, & 324)	-	1,100,896	1,100,896		1,095,196
326	Transmission related amount					W/S=	0.99482
327	<b>Actual (Uncapped) Capital Structure</b> WEIGHTED AVERAGE COST OF CAPITAL (WACC)						\$
328	Long Term Interest	(Worksheet L, In. 46, col. (D))				See W/S L	11,283,262
329	Preferred Dividends	(Worksheet L, In. 56, col. (D))					-
330	<u>Development of Common Stock:</u>						
331	Proprietary Capital	(FF1 p 112, Ln 16.c)					272,845,406
332	Less: Preferred Stock	(FF1 p 112, Ln 3.c)					-
333	Less: Account 216.1	(FF1 p 112, Ln 12.c)					-
334	Less: Account 219	(FF1 p 112, Ln 15.c)					-
335	Common Stock	(In 331 - In 332 - In 333 - In 334)					272,845,406
			<b>Capital Structure Percentages</b>			Cost	Weighted
			\$	%		(Note S)	
336	Long Term Debt	Worksheet L, In 46, col. (B))	328,000,000	54.59%		3.44%	0.0188
337	Preferred Stock (In 332)		-	0.00%		0.00%	0.0000
338	Common Stock (In 335)		272,845,406	45.41%		11.49%	0.0522
339	Total (Sum Ins 336 to 338)		600,845,406	100.00%		WACC=	0.0710
340	<b>AEP OPERATING COMPANIES' COMPOSITE (Note S)</b> WEIGHTED AVERAGE COST OF CAPITAL (WACC)						\$
341	Long Term Interest	(Worksheet Q, In. 14)					451,725,399
342	Preferred Dividends	(Worksheet Q, In. 36)					-
343	<u>Development of Common Stock:</u>						
344	Proprietary Capital	(Worksheet Q, In. 37)					8,970,826,119
345	Less: Preferred Stock	(Worksheet Q, In. 38)					-
346	Less: Account 216.1	(Worksheet Q, In. 39)					31
347	Less: Account 219	(Worksheet Q, In. 40)					(23,856,179)
348	Common Stock	(In 344 - In 345 - In 346 - In 347)					8,994,682,267
349			%	\$		Cost	Weighted
350	Long Term Debt	(Worksheet Q, In 50)	50.88%	9,109,864,778		4.96%	0.0252
351	Preferred Stock	(Worksheet Q, In 51)	0.00%	-		0.00%	0.0000
352	Common Stock	(Worksheet Q, In 52)	49.12%	8,794,037,374		11.49%	0.0564
353	Total	(Worksheet Q, In 45)		17,903,902,152		WACC=	0.0817

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**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.  
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.
- C Transmission Plant balances in this study are historic as of December 31, 2016.
- 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.  
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 265. It excludes:  
1) Load Scheduling & Dispatch Charges in account 561 that are collected in the OATT Ancillary Services Revenue, as shown on line 262.  
2) AEP transmission equalization transfers, as shown on line 263  
3) The impact of state regulatory deferrals and amortizations, as shown on line 264  
4) All A&G Expenses, as shown on line 277.
- F Consistent with Paragraph 657 of Order 2003-A, the amount on line 254 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 310.
- G Removes from the cost of service the Load Scheduling and Dispatch expenses booked to accounts 561.1 through 561.8. Expenses recorded in these accounts, with the exception of 561.4 & 561.8 (lines 192 & 193 above) are recovered in Schedule 1A, OATT ancillary services rates. See Worksheet F, lines 5 through 14, for descriptions and the Form 1 Source of these accounts' balances.
- H Removes cost of transmission service provided by others to determine the basis of cash working capital on line 265. To the extent such service is incurred to provide the PJM service at issue, e.g. transmission equalization agreement, such costs are added back on lines 279 and 280 to determine the total O&M collected in the formula. The amounts on lines 279 and 280 are also excluded in the calculation of the FCR percentage calculated on lines 182 through 188.  
The addbacks on lines 279 and 280 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 lines 279 and 280 is the AEP WEST VIRGINIA TRANSMISSION COMPANY general ledger.
- I Removes the impact of state regulatory deferrals or their amortization from 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. Per the settlement in Docket ER10-355, recoverable PBOP expense is based on a rate of 9.4 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 charged in the current year. Gross receipts, sales & use and taxes related to income are excluded.
- O The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = the percentage of federal income tax deductible for state income taxes. See Worksheet G for the development of the Company's composite SIT.  
A utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f) (In 305) multiplied by (1/1-T). If the applicable tax rates are zero enter 0.  
Inputs Required: FIT = 35.00%  
SIT = 6.50% (State Income Tax Rate or Composite SIT. Worksheet G))  
p = 0.00% (percent of federal income tax deductible for state purposes)
- P Removes plant excluded from the OATT because it does not meet the PJM's definition of Transmission Facilities or is otherwise ineligible to be recovered under the OATT.
- Q Removes transmission plant (e.g. step-up transformers) included in the development of OATT ancillary service rates and not already removed for reasons indicated in Note P.
- R Includes functional wages & salaries billed by AEP Service Corporation for support of the operating company.
- S As shown on Worksheet Q, the AEP West Virginia Transmission Company capital structure and weighted cost of capital (WACC) shall be based on (1) the weighted composite of AEP East Operating Companies' actual end-of-year capital structure, including year-end outstanding long term debt (LTD) and preferred stock (PS) issuances (Projected) or the beginning and ending average capital structure, including the beginning and ending average outstanding LTD and PS issuances (True-Up) with the common equity portion as capped in Docket No. ER08-1329 where any excess common equity is priced at the cost of LTD and the composite equity ratio is further capped at 50%, and (2) the actual weighted composite LTD and PS cost using actual calendar year LTD expense and PS dividends of the AEP East Operating Companies excluding all interest rate hedging costs and/or gains, until the the Company establishes its own actual capital structure.  
Upon establishment of actual debt financing for AEP West Virginia Transmission Company, the Company shall use its own actual capital structure capped by a 50% Common Equity Cap and its own LTD costs, excluding all interest rate hedging costs and/or gains, as computed on Worksheet L for the Projected TCOS or Worksheet M for the True Up TCOS.
- T AEP WEST VIRGINIA TRANSMISSION COMPANY's Common Stock is limited to 50% of the capital structure. This limit may only be changed through a Section 205 or 206 filing effective after June 30, 2013.  
If the percentage of equity exceeds the cap, the excess is included in weighted percentage of long term debt in the capital structure.

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Line No.			Total	Allocator	Transmission Amount
1	REVENUE REQUIREMENT (w/o incentives)	(In 136)			\$53,559,964
2	REVENUE CREDITS	(Note A) (Worksheet E)	-	DA 1.00000	\$ -
3	REVENUE REQUIREMENT For All Company Facilities	(In 1 less In 2)			\$ 53,559,964

**MEMO: The Carrying Charge Calculations on lines 6 to 11 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 4 is included in the total on line 3.**

4	Revenue Requirement for PJM Schedule 12 Facilities (w/o incentives) (Worksheet K)		41,934,095	DA 1.00000	\$ 41,934,095
5	NET PLANT CARRYING CHARGE w/o intra-AEP charges or credits or ROE incentives (Note B)				
6	Annual Rate	( (In 1 - In 102 - In 103) / In 48 x 100)			12.01%
7	Monthly Rate	(In 6 / 12)			1.00%
8	NET PLANT CARRYING CHARGE ON LINE 6 , w/o depreciation or ROE incentives (Note B)				
9	Annual Rate	( (In 1 - In 102 - In 103 - In 108) / In 48 x 100)			10.53%
10	NET PLANT CARRYING CHARGE ON LINE 9, w/o Return, income taxes or ROE incentives (Note B)				
11	Annual Rate	( (In 1 - In 102 - In 103 - In 108 - In 131 - In 132) / In 48 x 100)			1.58%
12	ADDITIONAL REVENUE REQUIREMENT for projects w/ incentive ROE's (Note B) (Worksheet K)				-
13	<b>REVENUE REQUIREMENT FOR SCHEDULE 1A CHARGES</b>				
14	Total Load Dispatch & Scheduling (Account 561)	Line 85 Below			85,997
15	Less: Load Dispatch - Scheduling, System Control and Dispatch Services (321.88.b)				-
16	Less: Load Dispatch - Reliability, Planning & Standards Development Services (321.92.b)				-
17	Total 561 Internally Developed Costs	(Line 14 - Line 15 - Line 16)			85,997

AEPTCo subsidiaries in PJM  
Transmission Cost of Service Formula Rate  
Utilizing Actual Cost Data for 2016 with Average Ratebase Balances

AEP WEST VIRGINIA TRANSMISSION COMPANY

	(1)	(2)	(3)	(4)	(5)
Line No.	<u>RATE BASE CALCULATION</u>	<u>Data Sources</u> <u>(See "General Notes")</u>	<u>TO Total</u> <u>NOTE C</u>	<u>Allocator</u>	<u>Total</u> <u>Transmission</u>
	GROSS PLANT IN SERVICE				
18	<i>Line Deliberately Left Blank</i>				
19	<i>Line Deliberately Left Blank</i>				
20	Transmission	(Worksheet A In 3.E & Ln 140)	453,045,873	DA	453,045,873
21	Less: Transmission ARO (Enter Negative)	(Worksheet A In 4.E & Ln 141)	-	TP	-
22	Plus: Transmission Plant-in-Service Additions (Worksheet I)		N/A	NA	N/A
23	Plus: Additional Trans Plant on Transferred Assets (Worksheet I)		N/A	NA	N/A
24	<i>Line Deliberately Left Blank</i>				
25	<i>Line Deliberately Left Blank</i>				
26	General Plant	(Worksheet A In 7.E)	-	W/S	-
27	Less: General Plant ARO (Enter Negative)	(Worksheet A In 8.E)	-	W/S	-
28	Intangible Plant	(Worksheet A In 9.E)	2,168,683	W/S	2,157,454
29	TOTAL GROSS PLANT	(Sum of Lines: 20 to 23 & 26 to 28)	455,214,556	<b>GP(h)=</b>	<b>0.99998</b> 455,203,327
				<b>GTD=</b>	<b>0.00000</b>
30	ACCUMULATED DEPRECIATION AND AMORTIZATION				
31	<i>Line Deliberately Left Blank</i>				
32	<i>Line Deliberately Left Blank</i>				
33	Transmission	(Worksheet A In 14.E & 28.E)	7,234,491	TP1=	7,234,491
34	Less: Transmission ARO (Enter Negative)	(Worksheet A In 15.E)	-	TP1=	-
35	Plus: Transmission Plant-in-Service Additions (Worksheet I)		N/A	DA	N/A
36	Plus: Additional Projected Deprec on Transferred Assets (Worksheet I)		N/A	DA	N/A
37	Plus: Additional Transmission Depreciation for 2017 (In 108)		N/A	TP1	N/A
38	Plus: Additional General & Intangible Depreciation for 2017 (In 107 + In 108)		N/A	W/S	N/A
39	Plus: Additional Accum Deprec on Transferred Assets (Worksheet I)		N/A	DA	N/A
40	<i>Line Deliberately Left Blank</i>				
41	<i>Line Deliberately Left Blank</i>				
42	General Plant	(Worksheet A In 18.E)	-	W/S	-
43	Less: General Plant ARO (Enter Negative)	(Worksheet A In 19.E)	-	W/S	-
44	Intangible Plant	(Worksheet A In 20.E)	255,426	W/S	254,103
45	TOTAL ACCUMULATED DEPRECIATION	(Sum of Lines: 33 to 39 & 42 to 44)	7,489,917		7,488,594
46	NET PLANT IN SERVICE				
47	<i>Line Deliberately Left Blank</i>				
48	Transmission	(In 20 + In 21 - In 33 - In 34)	445,811,382		445,811,382
49	Plus: Transmission Plant-in-Service Additions (In 22 - In 35)		N/A		N/A
50	Plus: Additional Trans Plant on Transferred Assets (In 23 - In 36)		N/A		N/A
51	Plus: Additional Transmission Depreciation for 2017 (-In 37)		N/A		N/A
52	Plus: Additional General & Intangible Depreciation for 2017 (-In 38)		N/A		N/A
53	Plus: Additional Accum Deprec on Transferred Assets (Worksheet I) (-In 39)		N/A		N/A
54	<i>Line Deliberately Left Blank</i>				
55	General Plant	(In 26 + In 27 - In 42 - In 43)	-		-
56	Intangible Plant	(In 28 - In 44)	1,913,258		1,903,351
57	TOTAL NET PLANT IN SERVICE	(Sum of Lines: 48 to 53 & 55, 56)	447,724,639	<b>NP(h)=</b>	<b>0.99998</b> 447,714,733
58	DEFERRED TAX ADJUSTMENTS TO RATE BASE	(Note D)			
59	Account No. 281.1 (enter negative)	(Worksheet B, In 2 & In 5.E)	-	NA	-
60	Account No. 282.1 (enter negative)	(Worksheet B, In 7 & In 10.E)	(79,802,647)	DA	(79,802,647)
61	Account No. 283.1 (enter negative)	(Worksheet B, In 12 & In 15.E)	(16,825,055)	DA	(16,825,055)
62	Account No. 190.1	(Worksheet B, In 17 & In 20.E)	8,576,467	DA	8,576,467
63	Account No. 255 (enter negative)	(Worksheet B, In 24 & In 25.E)	-	DA	-
64	TOTAL ADJUSTMENTS	(sum Ins 59 to 63)	(88,051,235)		(88,051,235)
65	PLANT HELD FOR FUTURE USE	(Worksheet A In 29.E & In 30.E)	-	DA	-
66	REGULATORY ASSETS	(Worksheet A In 41. (E))	-	DA	-
67	WORKING CAPITAL	(Note E)			
68	Cash Working Capital	(1/8 * In 88)	464,344		464,344
69	Transmission Materials & Supplies	(Worksheet C, In 2.F)	-	TP	-
70	A&G Materials & Supplies	(Worksheet C, In 3.F)	-	W/S	-
71	Stores Expense	(Worksheet C, In 4.(D))	-	GP(h)	-
72	Prepayments (Account 165) - Labor Allocated	(Worksheet C, In 8.G)	1,341,932	W/S	1,334,984
73	Prepayments (Account 165) - Gross Plant	(Worksheet C, In 8.F)	64,014	GP(h)	64,012
74	Prepayments (Account 165) - Transmission Only	(Worksheet C, In 8.E)	-	DA	-
75	Prepayments (Account 165) - Unallocable	(Worksheet C, In 8.D)	-	NA	-
76	TOTAL WORKING CAPITAL	(sum Ins 68 to 75)	1,870,290		1,863,341
77	IPP CONTRIBUTIONS FOR CONSTRUCTION	(Note F) (Worksheet D, In 8 (B))	-	DA	-
78	RATE BASE (sum Ins 57, 64, 65, 66, 76, 77)		361,543,694		361,526,838

AEPTCo subsidiaries in PJM  
Transmission Cost of Service Formula Rate  
Utilizing Actual Cost Data for 2016 with Average Ratebase Balances

AEP WEST VIRGINIA TRANSMISSION COMPANY

Line No.	(1) EXPENSE, TAXES, RETURN & REVENUE REQUIREMENTS CALCULATION	(2) Data Sources (See "General Notes")	(3) TO Total	(4) Allocator	(5) Total Transmission
79	OPERATION & MAINTENANCE EXPENSE				
80	<i>Line Deliberately Left Blank</i>				
81	<i>Line Deliberately Left Blank</i>				
82	Customer Related Expense	322.164,171,178.b	-		
83	Regional Marketing Expenses	322.131.b	-		
84	Transmission	321.112.b	3,800,749		
85	TOTAL O&M EXPENSES	(sum Ins 81 to 83)	3,800,749		
86	Less: Total Account 561	(Note G) (Worksheet F, In 14.C)	85,997		
87	Less: Account 565	(Note H) 321.96.b	-		
88	Less: Regulatory Deferrals & Amortizations	(Note I) (Worksheet F, In 4.C)	-		
	Total O&M Allocable to Transmission	(Ins 83 - 85 - 86 - 87)	3,714,752	TP	3,714,752
89	Administrative and General	323.197.b (Note J)	2,054,139		
90	Less: Acct. 924, Property Insurance	323.185.b	102,253		
91	Acct. 928, Reg. Com. Exp.	323.189.b	14,832		
92	Acct. 930.1, Gen. Advert. Exp.	323.191.b	-		
93	Acct. 930.2, Misc. Gen. Exp.	323.192.b	38,966		
94	Balance of A & G	(In 89 - sum In 90 to In 93)	1,898,088	W/S	1,888,260
95	Plus: Acct. 924, Property Insurance	(In 90)	102,253	GP(h)	102,250
96	Acct. 928 - Transmission Specific	Worksheet F In 20.(E) (Note L)	14,832	TP	14,832
97	Acct 930.1 - Only safety related ads -Direct	Worksheet F In 37.(E) (Note L)	-	TP	-
98	Acct 930.2 - Misc Gen. Exp. - Trans	Worksheet F In 42.(E) (Note L)	-	DA	-
99	PBOP Adjustment	Worksheet O Ln 16 (B), (Note K & M)	229,969	W/S	228,778
100	A & G Subtotal	(sum Ins 94 to 99)	2,245,141		2,234,121
101	O & M EXPENSE SUBTOTAL	(In 88 + In 100)	5,959,893		5,948,872
102	Plus: TEA Settlement in Account 565	Company Records (Note H)	-	DA	-
103	Plus: Transmission Lease Payments To Affiliates in Acct 565	(Company Records) (Note H)	-	DA	-
104	TOTAL O & M EXPENSE	(In 101 + In 102 + In 103)	5,959,893		5,948,872
105	DEPRECIATION AND AMORTIZATION EXPENSE				
106	<i>Line Deliberately Left Blank</i>				
107	<i>Line Deliberately Left Blank</i>				
108	Transmission	336.7.f	6,625,971	TP1	6,625,971
109	Plus: Transmission Plant-in-Service Additions (Worksheet I)		N/A		N/A
110	Plus: Formation Costs Amortization	(Worksheet A In 35.E)	-	TP1	-
111	General	336.10.f	-	W/S	-
112	Intangible	336.1.f	363,428	W/S	361,546
113	TOTAL DEPRECIATION AND AMORTIZATION	(Ln 108+109+111+112)	6,989,399		6,987,517
114	TAXES OTHER THAN INCOME				
115	Labor Related				
116	Payroll	Worksheet H In 23.(D)	-	W/S	-
117	Plant Related				
118	Property	Worksheet H In 23.(C) & In 58.(C)	733,410	DA	733,410
119	Gross Receipts/Sales & Use	Worksheet H In 23.(F)	-	NA	-
120	Other	Worksheet H In 23.(E)	-	GP(h)	-
121	TOTAL OTHER TAXES	(sum Ins 116 to 120)	733,410		733,410
122	INCOME TAXES				
123	T=1 - (((1 - SIT) * (1 - FIT)) / (1 - SIT * FIT * p)) =		39.23%		
124	EIT=(T/(1-T)) * (1-(WCLTD/WACC)) =		50.61%		
125	where WCLTD=(In 174) and WACC = (In 177)				
126	and FIT, SIT & p are as given in Note O.				
127	GRCF=1 / (1 - T) = (from In 123)		1.6454		
128	Amortized Investment Tax Credit (enter negative)	(FF1 p.114, In 19.c)	-		
129	Income Tax Calculation	(In 124 * In 132)	13,405,679		13,405,054
130	ITC adjustment	(In 127 * In 128)	-	NP(h)	-
131	TOTAL INCOME TAXES	(sum Ins 129 to 130)	13,405,679		13,405,054
132	RETURN ON RATE BASE (Rate Base*WACC)	(In 78 * In 177)	26,486,346.01		26,485,111.18
133	INTEREST ON IPP CONTRIBUTION FOR CONST. (Note F) (Worksheet D, In 2.(B))		-	DA	-
134	(Gains) / Losses on Sales of Plant Held for Future Use (Worksheet N, In 4, Cols. ((F) & (H))		-		-
135	Tax Impact on Net Loss / (Gain) on Sales of Plant Held for Future Use (In 134 * In124)		-		-
136	TOTAL REVENUE REQUIREMENT	(sum Ins 104, 113, 121, 131, 132, 133)	53,574,727		53,559,964

AEP WEST VIRGINIA TRANSMISSION COMPANY

**SUPPORTING CALCULATIONS**

In								
<u>No.</u>	TRANSMISSION PLANT INCLUDED IN PJM TARIFF							
137	Total transmission plant	(In 20)						453,045,873
138	Less transmission plant excluded from PJM Tariff (Note P)							-
139	Less transmission plant included in OATT Ancillary Services (Worksheet A, In 23, Col. (C)) (Note Q)							-
140	Transmission plant included in PJM Tariff	(In 137 - In 138 - In 139)						453,045,873
141	Percent of transmission plant in PJM Tariff	(In 140 / In 137)					<b>TP=</b>	<b>1.00000</b>
142	WAGES & SALARY ALLOCATOR (W/S)	(Note R)	Direct Payroll	Payroll Billed from AEP Service Corp.	Total			
143	<i>Line Deliberately Left Blank</i>							
144	Transmission	354.21.b	-	1,095,196	1,095,196	TP	1.00000	1,095,196
145	Regional Market Expenses	354.22.b	-	-	-	NA	0.00000	-
146	<i>Line Deliberately Left Blank</i>							
147	Other (Excludes A&G)	354.24,25,26.b	-	5,700	5,700	NA	0.00000	-
148	Total	(sum Ins 144, 145, & 147)	-	1,100,896	1,100,896			1,095,196
149	Transmission related amount						<b>W/S=</b>	<b>0.99482</b>
<b>ACTUAL CAPPED CAPITAL COST STRUCTURE (Note S)</b>								
150	WEIGHTED AVERAGE COST OF CAPITAL (WACC)							\$
151	Long Term Interest	(Worksheet M, In. 20, col. (E))						7,604,151
152	Preferred Dividends	(Worksheet M, In. 49, col. (E))						-
153	<u>Development of Average Common Stock Balance:</u>							
154	Proprietary Capital	(Worksheet M, In. 1, col. (E))						243,602,764
155	Less: Preferred Stock	(Worksheet M, In. 2, col. (E))						-
156	Less: Account 216.1	(Worksheet M, In. 3, col. (E))						-
157	Less: Account 219	(Worksheet M, In. 4, col. (E))						-
158	Average Common Stock	(In 154 - In 155 - In 156 - In 157)						243,602,764
<b>Capped Actual Average Capital Structure</b>			<u>Average \$</u>	<u>Capital Structure Percentages</u>			<u>Cost (Note S)</u>	<u>Weighted</u>
159	Long Term Debt W/S M, In 11, In 21, col. (E))		240,500,000	49.68%	50.00%		3.16%	0.0158
160	Preferred Stock (In 155)		-	0.00%	0.00%		0.00%	0.0000
161	Common Stock (In 158)		243,602,764	50.32%	50.00%		11.49%	0.0575
162	Total (Sum Ins 159 to 161)		484,102,764	100.00%	100.00%		<b>WACC=</b>	<b>0.0733</b>
163	Capital Structure Equity Limit (Note T)		50.0%					
<b>AEP OPERATING COMPANIES' COMPOSITE (Note S)</b>								
164	WEIGHTED AVERAGE COST OF CAPITAL (WACC)							\$
165	Long Term Interest	(Worksheet Q, In. 132)						451,725,399
166	Preferred Dividends	(Worksheet Q, In. 134)						-
167	<u>Development of Actual Average Common Stock:</u>							
168	Proprietary Capital	(Worksheet Q, In. 135)						Average
169	Less: Preferred Stock	(Worksheet Q, In. 136)						8,784,010,576
170	Less: Account 216.1	(Worksheet Q, In. 137)						-
171	Less: Account 219	(Worksheet Q, In. 138)						3,352,896
172	Common Stock	(In 168 - In 169 - In 170 - In 171)						(20,371,012)
								8,801,028,692
173	<b>True Up Capitalization with Equity Caps</b>		<u>%</u>	<u>\$</u>			<u>Cost</u>	<u>Weighted</u>
174	Long Term Debt (Worksheet Q, In 148)		50.54%	8,912,952,561			5.07%	0.0256
175	Preferred Stock (Worksheet Q, In 149)		0.00%	-			0.00%	0.0000
176	Common Stock (Worksheet Q, In 150)		49.46%	8,722,039,385			11.49%	0.0568
177	Total (Worksheet Q, In 143)		100%	17,634,991,947			<b>WACC=</b>	<b>0.0824</b>

AEPTCo subsidiaries in PJM  
Transmission Cost of Service Formula Rate  
Utilizing Actual Cost Data for 2016 with Average Ratebase Balances

AEP WEST VIRGINIA 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.  
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.
- C Transmission Plant balances in this study reflect the average of the balances at December 31, 2015 and December 31, 2016.
- 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. 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 88. It excludes:  
1) Load Scheduling & Dispatch Charges in account 561 that are collected in the OATT Ancillary Services Revenue, as shown on line 85.  
2) AEP transmission equalization transfers, as shown on line 86  
3) The impact of state regulatory deferrals and amortizations, as shown on line 87  
4) All A&G Expenses, as shown on line 100.
- F Consistent with Paragraph 657 of Order 2003-A, the amount on line 77 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 133.
- G Removes from the cost of service the Load Scheduling and Dispatch expenses booked to accounts 561.1 through 561.8. Expenses recorded in these accounts, with the exception of 561.4 & 561.8 (lines 15 & 16 above) are recovered in Schedule 1A, OATT ancillary services rates. See Worksheet F, lines 5 through 14, for descriptions and the Form 1 Source of these accounts' balances.
- H Removes cost of transmission service provided by others to determine the basis of cash working capital on line 88. To the extent such service is incurred to provide the PJM service at issue, e.g. transmission equalization agreement, such costs are added back on lines 102 and 103 to determine the total O&M collected in the formula. The amounts on lines 102 and 103 are also excluded in the calculation of the FCR percentage calculated on lines 5 through 11. The addbacks on lines 102 and 103 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 lines 102 and 103 is the AEP WEST VIRGINIA TRANSMISSION COMPANY general ledger.
- I Removes the impact of state regulatory deferrals or their amortization from 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. Per the settlement in Docket ER10-355, recoverable PBOP expense is based on a rate of 9.4 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 charged in the current year. Gross receipts, sales & use and taxes related to income are excluded.
- O The currently effective income tax rate, where FIT is the Federal income tax rate; SIT is the State income tax rate, and p = the percentage of federal income tax deductible for state income taxes. See Worksheet G for the development of the Company's composite SIT. A utility that elected to utilize amortization of tax credits against taxable income, rather than book tax credits to Account No. 255 and reduce rate base, must reduce its income tax expense by the amount of the Amortized Investment Tax Credit (Form 1, 266.8.f) (In 128) multiplied by (1/1-T). If the applicable tax rates are zero enter 0.  
Inputs Required: FIT = 35.00%  
SIT= 6.50% (State Income Tax Rate or Composite SIT. Worksheet G)  
p = 0.00% (percent of federal income tax deductible for state purposes)
- P Removes plant excluded from the OATT because it does not meet the PJM's definition of Transmission Facilities or is otherwise ineligible to be recovered under the OATT.
- Q Removes transmission plant (e.g. step-up transformers) included in the development of OATT ancillary service rates and not already removed for reasons indicated in Note P.
- R Includes functional wages & salaries billed by AEP Service Corporation for support of the operating company.
- S As shown on Worksheet Q, the AEP West Virginia Transmission Company capital structure and weighted cost of capital (WACC) shall be based on (1) the weighted composite of AEP East Operating Companies' actual end-of-year capital structure, including year-end outstanding long term debt (LTD) and preferred stock (PS) issuances (Projected) or the beginning and ending average capital structure, including the beginning and ending average outstanding LTD and PS issuances (True-Up) with the common equity portion as capped in Docket No. ER08-1329 where any excess common equity is priced at the cost of LTD and the composite equity ratio is further capped at 50%, and (2) the actual weighted composite LTD and PS cost using actual calendar year LTD expense and PS dividends of the AEP East Operating Companies excluding all interest rate hedging costs and/or gains, until the the Company establishes its own actual capital structure. Upon establishment of actual debt financing for AEP West Virginia Transmission Company, the Company shall use its own actual capital structure capped by a 50% Common Equity Cap and its own LTD costs, excluding all interest rate hedging costs and/or gains, as computed on Worksheet L for the Projected TCOS or Worksheet M for the True Up TCOS.
- T 2013.  
If the percentage of equity exceeds the cap, the excess is included in weighted percentage of long term debt in the capital structure.

AEPTCo subsidiaries in PJM  
Cost of Service Formula Rate Using 2016 FF1 Balances  
Worksheet A Supporting Plant Balances  
AEP WEST VIRGINIA TRANSMISSION COMPANY

Line	(A)	(B)	(C)	(D)	(E)
Number	Rate Base Item & Supporting Balance	Source of Data	Balance @ December 31, 2016	Balance @ December 31, 2015	Average Balance for 2016
<b>Plant Investment Balances</b>					
1	Line Deliberately Left Blank				
2	Line Deliberately Left Blank				
3	Transmission Plant In Service	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 58	565,270,816	340,820,929	453,045,873
4	Transmission Asset Retirement Obligation	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 57	-	-	-
5	Line Deliberately Left Blank				
6	Line Deliberately Left Blank				
7	General Plant In Service	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 99	-	-	-
8	General Asset Retirement Obligation	FF1, page 207 Col.(g) & pg. 206 Col. (b), In 98	-	-	-
9	Intangible Plant In Service	FF1, page 205 Col.(g) & pg. 204 Col. (b), In 5	2,976,059	1,361,307	2,168,683
10	Total Property Investment Balance	(Sum of Lines: 3, 7, 9)	568,246,875	342,182,236	455,214,556
11	Total ARO Balance (included in total on line 10)	(Sum of Lines: 4, 8)	-	-	-
<b>Accumulated Depreciation &amp; Amortization Balances</b>					
12	Line Deliberately Left Blank				
13	Line Deliberately Left Blank				
14	Transmission Accumulated Depreciation	FF1, page 219, In 25, Col. (b)	10,534,889	3,934,093	7,234,491
15	Transmission ARO Accumulated Depreciation	Company Records - Note 1	-	-	-
16	Line Deliberately Left Blank				
17	Line Deliberately Left Blank				
18	General Accumulated Depreciation	FF1, page 219, In 28, Col. (b)	-	-	-
19	General ARO Accumulated Depreciation	Company Records - Note 1	-	-	-
20	Intangible Accumulated Amortization	FF1, page 200, In 21, Col. (b)	437,139	73,712	255,426
21	Total Accumulated Depreciation or Amortization	(Sum of Lines: 14, 18, 20)	10,972,028	4,007,805	7,489,917
22	Total ARO Balance (included in total on line 21)	(Sum of Lines: 15, 19)	-	-	-
<b>Generation Step-Up Units</b>					
23	GSU Investment Amount	Company Records - Note 1	-	-	-
24	GSU Accumulated Depreciation	Company Records - Note 1	-	-	-
25	GSU Net Balance	(Line 23 - Line 24)	-	-	-
<b>Transmission Accumulated Depreciation Net of GSU Accumulated Depreciation</b>					
26	Transmission Accumulated Depreciation	(Line 14 Above)	10,534,889	3,934,093	7,234,491
27	Less: GSU Accumulated Depreciation	(Line 24 Above)	-	-	-
28	Subtotal of Transmission Net of GSU	(Line 26 - Line 27)	10,534,889	3,934,093	7,234,491
<b>Plant Held For Future Use</b>					
29	Plant Held For Future Use	FF1, page 214, In 47, Col. (d)	-	-	-
30	Transmission Plant Held For Future	Company Records - Note 1	-	-	-
<b>Regulatory Assets and Liabilities Approved for Recovery in Ratebase</b>					
Note: Regulatory Assets & Liabilities can only be included in ratebase pursuant to a 205 filing with the FERC.					
31	Beginning Balance of Regulatory Asset (Note 2)		-	-	-
32	Amortization in Months		-	-	-
33	Monthly Amortization		-	-	-
34	Months in 2016 to be amortized		-	-	-
35	Amortization Expense in 2016		-	-	-
36	Months in 2017 to be amortized		-	-	-
37	Amortization Expense in 2017		-	-	-
38	Ending Balance of Regulatory Asset		-	-	-
39	Average Balance of Regulatory Asset		-	-	-
40	Unamortized Balance of Regulatory Asset at YE 2016		-	-	-
41	Total Regulatory Deferrals Included in Ratebase (Note 2)		-	-	-

NOTE 1 On this worksheet, "Company Records" refers to AEP's property accounting ledger.

NOTE 2 Formation costs through 6/30/2010 are includable at 50% with 48 month amortization and no return on the unamortized balance. The balance on line 41 may not include unamortized formation costs.

AEPTCo subsidiaries in PJM  
Cost of Service Formula Rate Using 2016 FF1 Balances  
Worksheet B Supporting ADIT and ITC Balances  
AEP WEST VIRGINIA TRANSMISSION COMPANY

<u>Line Number</u>	<u>(A) Description</u>	<u>(B) Source</u>	<u>(C) Balance @ December 31, 2016</u>	<u>(D) Balance @ December 31, 2015</u>	<u>(E) Average Balance for 2016</u>
1	<b><u>Account 281</u></b>				
2	Year End Utility Deferrals	FF1, p. 272 - 273, In 8, Col. (k)	-	-	-
3	Less: ARO Related Deferrals	Company Records - Note 1	-	-	-
4	Less: Other Excluded Deferrals	Company Records - Note 1	-	-	-
5	Transmission Related Deferrals	Ln 2 - In 3 - In 4	-	-	-
6	<b><u>Account 282</u></b>				
7	Year End Utility Deferrals	FF1, p. 274 - 275, In 5, Col. (k)	103,890,429	55,714,865	79,802,647
8	Less: ARO Related Deferrals	Company Records - Note 1	-	-	-
9	Less: Other Excluded Deferrals	Company Records - Note 1	-	-	-
10	Transmission Related Deferrals	Ln 7 - In 8 - In 9	103,890,429	55,714,865	79,802,647
11	<b><u>Account 283</u></b>				
12	Year End Utility Deferrals	FF1, p. 276 - 277, In 9, Col. (k)	21,612,126	12,037,984	16,825,055
13	Less: ARO Related Deferrals	Company Records - Note 1	-	-	-
14	Less: Other Excluded Deferrals	Company Records - Note 1	-	-	-
15	Transmission Related Deferrals	Ln 12 - In 13 - In 14	21,612,126	12,037,984	16,825,055
16	<b><u>Account 190</u></b>				
17	Year End Utility Deferrals	FF1, p. 234, In 8, Col. (c)	10,960,041	6,192,893	8,576,467
18	Less: ARO Related Deferrals	Company Records - Note 1	-	-	-
19	Less: Other Excluded Deferrals	Company Records - Note 1	-	-	-
20	Transmission Related Deferrals	Ln 17 - In 18 - In 19	10,960,041	6,192,893	8,576,467
21	<b><u>Account 255</u></b>				
22	Year End ITC Balances	FF1, p. 266-267, In 8, Col. (h)	-	-	-
23	Less: Balances Not Qualified for Ratebase	Company Records - Note 1	-	-	-
24	ITC Balances Includeable in Ratebase	Ln 22 - In 23	-	-	-
25	Transmission Related Deferrals	Company Records - Note 1	-	-	-

NOTE 1 On this worksheet, "Company Records" refers to AEP's tax accounting ledger.

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

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Worksheet C Supporting Working Capital Rate Base Adjustments  
 AEP WEST VIRGINIA TRANSMISSION COMPANY

(A)	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)
<b>Materials &amp; Supplies</b>								
Line Number	Source	Balance @ December 31, 2016	Balance @ December 31, 2015	Average Balance for 2016				
1								
2	Transmission Materials & Supplies	0	0	-				
3	General Materials & Supplies	0	0	-				
4	Stores Expense (Undistributed)	0	0	-				

**Prepayment Balance Summary**

Average of YE Balance	Excludable Balances	100% Transmission Related	Transmission Plant Related	Transmission Labor Related	Total Included in Ratebase (E)+(F)+(G)
Totals as of December 31, 2016	637,399	0	0	67,348	637,399
Totals as of December 31, 2015	2,174,493	0	0	60,679	2,174,493
<b>Average Balance</b>	<b>1,405,946</b>	-	-	<b>64,014</b>	<b>1,405,946</b>

**Prepayments Account 165 - Balance @ 12/31/2016**

2016 YE Balance	Excludable Balances	100% Transmission Related	Transmission Plant Related	Transmission Labor Related	Total Included in Ratebase (E)+(F)+(G)	Explanation
1650001 Prepaid Insurance	47,799	-	47,799		47,799	Plant related insurance policies
165000216 Prepaid Taxes	0	-			-	
1650003 Prepaid Rents	0	-			-	
1650004 Prepaid Interest	0	-			-	
1650005 Prepaid Employee Benefits	0	-			-	
1650006 Other Prepayments	0	-			-	
1650009 Prepaid Carry Cost-Factored AR	0	-			-	
1650010 Prepaid Pension Benefits	0	-			-	
1650014 FAS 158 Qual Contra Asset	0	-			-	
1650016 FAS 112 ASSETS	0	-			-	
1650021 Prepaid Insurance - EIS	15,382	-	15,382		15,382	Plant related insurance policies
1650023 Prepaid Lease	4,167	-	4,167		4,167	Prepaid lease
1650031 Prepaid OCIP Work Comp	65,314	-		65,314	65,314	Labor related Workers' Compensation
1650032 Prepaid OCIP Work Comp LT	204,164	-		204,164	204,164	Labor related Workers' Compensation
1650033 Prepaid OCIP Work Comp - Aff	77,551	-		77,551	77,551	Labor related Workers' Compensation
1650034 Prepaid OCIP Work Comp LT- Aff	223,021	-		223,021	223,021	Labor related Workers' Compensation
<b>Subtotal - Form 1, p 111.57.c</b>	<b>637,399</b>	<b>0</b>	<b>0</b>	<b>67,348</b>	<b>570,051</b>	<b>637,399</b>

**Prepayments Account 165 - Balance @ 12/31/ 2015**

2015 YE Balance	Excludable Balances	100% Transmission Related	Transmission Plant Related	Transmission Labor Related	Total Included in Ratebase (E)+(F)+(G)	Explanation
1650001 Prepaid Insurance	35,165	-	35,165		35,165	
165000215 Prepaid Taxes	0	-			-	
1650003 Prepaid Rents	0	-			-	
1650004 Prepaid Interest	0	-			-	
1650005 Prepaid Employee Benefits	0	-			-	
1650006 Other Prepayments	0	-			-	
1650009 Prepaid Carry Cost-Factored AR	0	-			-	
1650010 Prepaid Pension Benefits	0	-			-	
1650014 FAS 158 Qual Contra Asset	0	-			-	
1650016 FAS 112 ASSETS	0	-			-	
1650021 Prepaid Insurance - EIS	21,347	-	21,347		21,347	
1650023 Prepaid Lease	4,167	-	4,167		4,167	
1650031 Prepaid OCIP Work Comp	429,720	-		429,720	429,720	
1650032 Prepaid OCIP Work Comp LT	565,519	-		565,519	565,519	
1650033 Prepaid OCIP Work Comp - Aff	513,231	-		513,231	513,231	
1650034 Prepaid OCIP Work Comp LT- Aff	605,344	-		605,344	605,344	
<b>Subtotal - Form 1, p 111.57.c</b>	<b>2,174,493</b>	<b>0</b>	<b>0</b>	<b>60,679</b>	<b>2,113,814</b>	<b>2,174,493</b>

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Worksheet D Supporting IPP Credits  
 AEP WEST VIRGINIA TRANSMISSION COMPANY

<u>Line Number</u>	<u>(A) Description</u>	<u>(B) 2016</u>
1	Net Funds from IPP Customers 12/31/2015 (2016 FORM 1, P269, line 24.b)	-
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 12/31/2016 (2016 FORM 1, P269, line 24.f)	-
8	Average Balance for Year as Indicated in Column ((In 1 + In 7)/2)	-

Note 1 On this worksheet Company Records refers to AEP WEST VIRGINIA TRANSMISSION COMPANY's general ledger.

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Worksheet E Supporting Revenue Credits  
 AEP WEST VIRGINIA 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 - Note 1)	-	-	-
5	Account 456 - Other Electric Revenues - (Company Records - Note 1)	52,672,361	52,672,361	-
6	Subtotal - Other Operating Revenues (Company Total equals (FF1 p. 300.26.(b))	52,672,361	52,672,361	-
7	Accounts 4470004 & 5, Revenues from Grandfathered Transmission Contracts - (Company Records - Note 1)	-	-	-
8	Total Other Operating Revenues To Reduce Revenue Requirement	52,672,361	52,672,361	-

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

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Worksheet F Supporting Allocation of Specific O&M or A&G Expenses  
 AEP WEST VIRGINIA TRANSMISSION COMPANY

Line Number	(A) Item No.	(B) Description	(C) 2016 Expense	(D) 100% Non-Transmission	(E) 100% Transmission Specific	(F) Explanation
<b>Regulatory O&amp;M Deferrals &amp; Amortizations</b>						
1	5700005	Maint Station-Reliability-Df	-			
2						
3						
4		<b>Total</b>	-			
<b>Detail of Account 561 Per FERC Form 1</b>						
5	FF1 p 321.84.b	561 - Load Dispatching	-			
6	FF1 p 321.85.b	561.1 - Load Dispatch - Reliability	57			
7	FF1 p 321.86.b	561.2 - Load Dispatch - Monitor & Operate Trans System	39,817			
8	FF1 p 321.87.b	561.3 - Load Dispatch - Trans Service & Scheduling	-			
9	FF1 p 321.88.b	561.4 - Scheduling, System Control & Dispatch	-			
10	FF1 p 321.89.b	561.5 - Reliability, Planning and Standards Development	46,123			
11	FF1 p 321.90.b	561.6 - Transmission Service Studies	-			
12	FF1 p 321.91.b	561.7 - Generation Interconnection Studies	-			
13	FF1 p 321.92.b	561.8 - Reliability, Planning and Standards Development Services	-			
14		<b>Total of Account 561</b>	85,997			
<b>Account 928</b>						
15	9280000	Regulatory Commission Exp	-	-	-	
16	9280001	Regulatory Commission Exp-Adm	-	-	-	
17	9280002	Regulatory Commission Exp-Case	-	-	-	
18	9280002	Regulatory Commission Exp-Case	-	-	-	
19	9280005	Regulatory Commission Exp-FERC Trans Case	14,832	-	14,832	
20		<b>Total</b>	14,832	-	14,832	
<b>Account 930.1</b>						
21	9301000	General Advertising Expenses	-	-	-	
22	9301001	Newspaper Advertising Space	-	-	-	
23	9301002	Radio Station Advertising Time	-	-	-	
24	9301003	TV Station Advertising Time	-	-	-	
25	9301004	Newspaper Advertising Prod Exp	-	-	-	
26	9301005	Radio & TV Advertising Prod Exp	-	-	-	
27	9301006	Spec Corporate Comm Info Proj	-	-	-	
28	9301007	Special Adv Space & Prod Exp	-	-	-	
29	9301008	Direct Mail and Handouts	-	-	-	
30	9301009	Fairs, Shows, and Exhibits	-	-	-	
31	9301010	Publicity	-	-	-	
32	9301011	Dedications, Tours, & Openings	-	-	-	
33	9301012	Public Opinion Surveys	-	-	-	
34	9301013	Movies Slide Films & Speeches	-	-	-	
35	9301014	Video Communications	-	-	-	
36	9301015	Other Corporate Comm Exp	-	-	-	
37		<b>Total</b>	-	-	-	
<b>Account 930.2</b>						
38	9302000	Misc General Expenses	34,444	34,444	-	
39	9302003	Corporate & Fiscal Expenses	4,523	4,523	-	
40	9302004	Research, Develop&Demonstr Exp	-	-	-	
41	9302007	Assoc Business Development Exp	-	-	0	
42		<b>Total</b>	38,966	38,966	-	

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Worksheet G Supporting - Development of Composite State Income Tax Rate  
 AEP WEST VIRGINIA TRANSMISSION COMPANY

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

Note 1 The Ohio State Income Tax is being phased-out prorata over a 5 year period from 2005 through 2009. The taxable portion of income is 20% in 2009. The phase-out factors can be found in the Ohio Revised Code at 5733.01(G)2(a)(v). This tax has been replaced with a Commercial Activities Tax that is included in Schedule H.

Note 2 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	<b>Revenue Taxes</b>					
2	Gross Receipts Tax	-				-
3	<b>Real Estate and Personal Property Taxes</b>					
4	Real and Personal Property - West Virginia	733,410	733,410			
5	Real and Personal Property - Virginia	-	-			
6	Real and Personal Property - Tennessee	-	-			
7	Real and Personal Property - Other Jurisdictions	-	-			
8	<b>Payroll Taxes</b>					
9	Federal Insurance Contribution (FICA )	-		-		
10	Federal Unemployment Tax	-		-		
11	State Unemployment Insurance	-		-		
12	<i>Line Deliberately Left Blank</i>					
13	State Severance Taxes	-				-
14	<b>Miscellaneous Taxes</b>					
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	733,410	733,410	-	-	-

(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**

Line No.	Account	Lines 24-58 Column (B) Deliberately Left Blank		Lines 24-58 Column (D) Deliberately Left Blank		Total
		Transmission	General	Transmission	General	
24	Functionalized Net Plant (Hist. TCOS, Lns 224 thru 234)	-	554,735,927	-	-	554,735,927
<b>WEST VIRGINIA JURISDICTION</b>						
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					0
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%		
35	Functionalized Expense in WEST VIRGINIA JURISDICTION	-	733,410	-		733,410
<b>JURISDICTION</b>						
36	Percentage of Plant in _____ JURISDICTION					
37	Net Plant in _____ JURISDICTION (Ln 24 * Ln 36)	-	-	-	-	-
38	Less: Net Value of Exempted Generation Plant	-	-	-	-	-
39	Taxable Property Basis (Ln 37 - Ln 38)	-	-	-	-	-
40	Relative Valuation Factor					0
41	Weighted Net Plant (Ln 39 * Ln 40)	-	-	-	-	-
42	General Plant Allocator (Ln 41 / (Total - General Plant))	0.00%	100.00%	0.00%	-100.00%	
43	Functionalized General Plant (Ln 42 * General Plant)	-	-	-	-	-
44	Weighted _____ JURISDICTION Plant (Ln 41 + 43)	-	-	-	-	-
45	Functional Percentage (Ln 44/Total Ln 44)	0.00%	100.00%	0.00%		
46	Functionalized Expense in _____ JURISDICTION	-	-	-		-
<b>JURISDICTION</b>						
47	Net Plant in _____ JURISDICTION (Ln 24 - Ln 26 - Ln 3)	-	554,735,927	-	-	554,735,927
48	Less: Net Value Exempted Generation Plant	-	-	-	-	-
49	Taxable Property Basis	-	554,735,927	-	-	554,735,927
50	Relative Valuation Factor					0
51	Weighted Net Plant (Ln 49 * Ln 50)	-	-	-	-	-
52	General Plant Allocator (Ln 51 / (Total - General Plant))	0.00%	100.00%	0.00%	-100.00%	
53	Functionalized General Plant (Ln 53 * General Plant)	-	-	-	-	-
54	Weighted _____ JURISDICTION Plant (Ln 51 + 53)	-	-	-	-	-
55	Functional Percentage (Ln 54/Total Ln 54)	0.00%	100.00%	0.00%		
56	Functionalized Expense in _____ JURISDICTION	-	-	-		-
57	Total Other Jurisdictions: (Line 7 * Net Plant Allocator)		-			-
58	Total Func. Property Taxes (Sum Lns 35, 46 56, 57)	-	733,410	-		733,410

Line No.	(A) Annual Tax Expenses by Type (Note 1)	(B) Total Company	(C) FERC FORM 1 Tie-Back	(D) FERC FORM 1 Reference
1	<b>Revenue Taxes</b>			
2	Gross Receipts Tax	-		
3	<b>Real Estate and Personal Property Taxes</b>			
4	Real and Personal Property - West Virginia	733,410	733,410	P.263 Ln 22 (i)
5	Real and Personal Property - Virginia	-		
6	Real and Personal Property - Tennessee	-		
7	Real and Personal Property - Other Jurisdictions	-		
8	<b>Payroll Taxes</b>			
9	Federal Insurance Contribution (FICA )	-		
10	Federal Unemployment Tax	-		
11	State Unemployment Insurance	-		
12	<i>Line Left Deliberately Blank</i>			
13	State Severance Taxes	-		
14	<b>Miscellaneous Taxes</b>			
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 (Total Company Amount Ties to FFI p.114, Ln 14,(c))	733,410	733,410	

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 of the Ferc Form 1.

**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 (True-Up TCOS, In 176)			11.49%
Project ROE Incentive Adder		0	<==ROE Adder Cannot Exceed 100 Basis Points
ROE with additional 0 basis point incentive		11.49%	<== ROE Including Incentives Cannot Exceed 12.5% Until July 1, 2012
Determine R ( cost of long term debt, cost of preferred stock and equity percentage is from the True-Up TCOS, Ins 174 through176)			
	%	Cost	Weighted cost
Long Term Debt	50.00%	3.16%	1.581%
Preferred Stock	0.00%	0.00%	0.000%
Common Stock	50.00%	11.49%	5.745%
		R =	7.326%

SUMMARY OF TRUED-UP ANNUAL REVENUE REQUIREMENTS FOR RTEPPROJECTS					
TRUE-UP YEAR	2016	Rev Require	W Incentives	Incentive Amounts	
As Projected in Prior Year WS J	\$	37,812,665	\$	37,811,477	\$ (1,188)
Actual after True-up	\$	41,934,095	\$	41,934,095	\$ -
True-up of ARR For 2016		4,121,430		4,122,618	1,188

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

Rate Base (True-Up TCOS, In 78)	361,526,838
R (from A. above)	7.326%
Return (Rate Base x R)	26,485,111

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

Return (from B. above)	26,485,111
Effective Tax Rate (True-Up TCOS, In 124)	50.61%
Income Tax Calculation (Return x CIT)	13,405,054
ITC Adjustment	-
Income Taxes	13,405,054

**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 (True-Up TCOS, In 1)	53,559,964
T.E.A. & Lease Payments (True-Up TCOS, Lns 102 & 103)	-
Return (True-Up TCOS, In 132)	26,485,111
Income Taxes (True-Up TCOS, In 131)	13,405,054
Annual Revenue Requirement, Less TEA	13,669,800
Charges, Return and Taxes	

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

Annual Revenue Requirement, Less TEA Charges, Return and Taxes	13,669,800
Return (from I.B. above)	26,485,111
Income Taxes (from I.C. above)	13,405,054
Annual Revenue Requirement, with 0 Basis Point ROE increase	53,559,964
Depreciation (True-Up TCOS, In 108)	6,625,971
Annual Rev. Req. w/ 0 Basis Point ROE increase, less Depreciation	46,933,993

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

Net Transmission Plant (True-Up TCOS, In 48)	445,811,382
Annual Revenue Requirement, with 0 Basis Point ROE increase	53,559,964
FCR with 0 Basis Point increase in ROE	12.01%

Annual Rev. Req. w/ 0 Basis Point ROE increase, less Dep.	46,933,993
FCR with 0 Basis Point ROE increase, less Depreciation	10.53%
FCR less Depreciation (True-Up TCOS, In 9)	10.53%
Incremental FCR with 0 Basis Point ROE increase, less Depreciation	0.00%

**III. Calculation of Composite Depreciation Rate**

Transmission Plant @ Beginning of Historic Period () (P.206, In 58,(b)):	340,820,929
Transmission Plant @ End of Historic Period () (P.207, In 58,(g)):	565,270,816
Subtotal	906,091,745
Average Transmission Plant Balance for	453,045,873
Annual Depreciation Rate (True-Up TCOS, In 108)	6,625,971
Composite Depreciation Rate	1.46%
Depreciable Life for Composite Depreciation Rate	68.37
Round to nearest whole year	68

Note 1: Until AEP WEST VIRGINIA 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 WEST VIRGINIA TRANSMISSION COMPANY is shown on Worksheet P.





















AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Worksheet L Supporting Projected Cost of Debt  
 AEP WEST VIRGINIA TRANSMISSION COMPANY

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

<u>Line Number</u>	(A) <u>Issuance</u>	(B) <u>Principle Outstanding</u>	(C) <u>Interest Rate</u>	(D) <u>Annual Expense</u> (See Note S on Projected Template)
1	<b>Long Term Debt (FF1.p. 256-257, a,h)</b>			
2	<b>Bonds - Acc 221</b>			
3				-
4				-
5				-
6	<b>Reacquired Bonds - Total Account 222</b>			
7				-
8				-
9				-
10	<b>Advances from Assoc Companies</b>			
11	Senior Notes, Series B, Tranche F, 5.52%	35,000,000	5.520%	1,932,000
12	Senior Notes, Series C, Tranche A, 2.68%	20,400,000	2.680%	546,720
13	Senior Notes, Series C, Tranche B, 3.18%	12,000,000	3.180%	381,600
14	Senior Notes, Series C, Tranche C, 3.56%	22,800,000	3.560%	811,680
15	Senior Notes, Series C, Tranche F, 3.81%	13,200,000	3.810%	502,920
16	Senior Notes, Series C, Tranche H, 4.05%	5,000,000	4.050%	202,500
17	Senior Notes, Series C, Tranche I, 4.53%	9,600,000	4.530%	434,880
18	Senior Notes, Series C, Tranche D, 3.66%	10,000,000	3.660%	366,000
19	Senior Notes, Series C, Tranche G, 4.01%	15,000,000	4.010%	601,500
20	Senior Notes, Series C, Tranche E, 3.76%	10,000,000	3.760%	376,000
21	Senior Notes, Series E, 4.00%	81,000,000	4.000%	3,240,000
22	Senior Notes, Series D, 3.10%	29,000,000	3.100%	899,000
23	Credit Facility	65,000,000	1.299%	844,169
24				-
25	<b>Other Long Term Debt - Acc 224</b>			
26				-
27				-
28				-
29				-
30				-
31				-
32				-
33				-
34				-
35				-
36				-
37				-
38	<b>Sale/Leaseback (If Applicable)</b>		0.00%	-
39	<u>Issuance Discount, Premium, &amp; Expenses:</u>			
40	Auction Fees	FF1.p. 256 & 257.Lines Described as Fees		-
41	Amort of Debt Discount and Expenses 428	FF1.p. 117.63.c		107,275
42	Less: Amort of Debt Premiums	FF1.p. 117.65.c		-
43	<u>Reacquired Debt:</u>			
44	Amortization of Loss	FF1.p. 117.64.c		37,018
45	Less: Amortization of Gain	FF1.p. 117.66.c		-
46	<b>Total Interest on Long Term Debt</b>	<b>328,000,000</b>	3.44%	11,283,262
47	<b>Preferred Stock (FF1.p. 250-251)</b>			
48		<b>Preferred Shares Outstanding</b>		-
49				-
50				-
51				-
52				-
53				-
54				-
55				-
56	<b>Dividends on Preferred Stock</b>	-	0.00%	-

**NOTE: All interest rate hedging gains/losses shall be excluded from long term debt expense.**

**Worksheet M Supporting Calculation of Capital Structure and Weighted Average Cost of Capital  
Based on Average of Balances At 12/31/2015 & 12/31/2016**

(A)	(B)	(C)	(D)	(E)
Line		Balances @ 12/31/2016	Balances @ 12/31/2015	Average
<b>Development of Average Balance of Common Equity</b>				
1	Proprietary Capital (112.16.c&d)	272,845,406	214,360,121	243,602,764
2	Less Preferred Stock (Ln 48 Below)	-	-	-
3	Less Account 216.1 (112.12.c&d)	-	-	-
4	Less Account 219.1 (112.15.c&d)	-	-	-
5	<b>Average Balance of Common Equity</b>	<b>272,845,406</b>	<b>214,360,121</b>	<b>243,602,764</b>

<b>Development of Cost of Long Term Debt Based on Average Outstanding Balance</b>				
6	Bonds (112.18.c&d)	-	-	-
7	Less: Reacquired Bonds (112.19.c&d)	-	-	-
8	LT Advances from Assoc. Companies (112.20.c&d)	263,000,000	218,000,000	240,500,000
9	Senior Unsecured Notes (112.21.c&d)	-	-	-
10	Less: Fair Value Hedges (See Note on Ln 12 below)	-	-	-
11	<b>Total Average Debt</b>	<b>263,000,000</b>	<b>218,000,000</b>	<b>240,500,000</b>

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

<b>13 Annual Interest Expense for 2016</b>				
14	Interest on Long Term Debt (256-257.33.i)			7,459,858
	Less: Total Hedge (Gain)/Expense Accumulated from p 256-257, col (i) of FERC Form 1			-
15	included in Ln 14 and shown in Ln 32 below.			-
16	Amort of Debt Discount & Expense (117.63.c)			107,275
17	Amort of Loss on Reacquired Debt (117.64.c)			37,018
18	Less: Amort of Premium on Debt (117.65.c)			-
19	Less: Amort of Gain on Reacquired Debt (117.66.c)			-
20	<b>Total Interest Expense (Ln 14 - Ln 15 + Ln 16 + Ln 17 - Ln 18 - Ln 19)</b>			<b>7,604,151</b>
21	<b>Average Cost of Debt for 2016 (Ln 20/Ln 11)</b>			<b>3.16%</b>

**CALCULATION OF HEDGE GAINS/LOSSES TO BE EXCLUDED FROM TCOS**

22 AEP WEST VIRGINIA TRANSMISSION COMPANY may not include costs (or gains) related to interest hedging activities

HEDGE AMOUNTS BY ISSUANCE (FROM p. 256-257 (i) of the FERC Form 1)	(Amortization of (Gain)/Loss for 2016	Remaining Unamortized Balance	Amortization Period	
			Beginning	Ending
23				
24				
25				
26				
27				
28				
29				
30				
31				
32	<b>Net (Gain)/Loss Hedge Amortization To Be Removed</b>	-		

**Development of Cost of Preferred Stock**

Preferred Stock			Average
33	0% Series - Dividend Rate (p. 250-251. 7 & 10.a)		
34	0% Series - Par Value (p. 250-251. 8.c)		
35	0% Series - Shares O/S (p.250-251. 8 & 11.e)		
36	0% Series - Monetary Value (Ln 34 * Ln 35)	-	-
37	0% Series - Dividend Amount (Ln 33 * Ln 36)	-	-
38	0% Series - Dividend Rate (p. 250-251.a)		
39	0% Series - Par Value (p. 250-251.c)		
40	0% Series - Shares O/S (p.250-251. e)		
41	0% Series - Monetary Value (Ln 39 * Ln 40)	-	-
42	0% Series - Dividend Amount (Ln 38 * Ln 41)	-	-
43	0% Series - Dividend Rate (p. 250-251.a)		
44	0% Series - Par Value (p. 250-251.c)		
45	0% Series - Shares O/S (p.250-251.e)		
46	0% Series - Monetary Value (Ln 44 * Ln 45)	-	-
47	0% Series - Dividend Amount (Ln 43 * Ln 46)	-	-
48	<b>Balance of Preferred Stock (Lns 36, 41, 46)</b>	-	-
49	<b>Dividends on Preferred Stock (Lns 37, 42, 47)</b>	-	-
50	<b>Average Cost of Preferred Stock (Ln 49/48)</b>	0.00%	0.00%

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

**AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Worksheet N - Gains (Losses) on Sales of Plant Held For Future Use  
 AEP WEST VIRGINIA TRANSMISSION COMPANY**

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

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 2016		-		-	

AEPTCo subsidiaries in PJM  
 Cost of Service Formula Rate Using 2016 FF1 Balances  
 Calculation of Post-employment Benefits Other than Pensions Expenses Allocable to Transmission Service  
 Worksheet O - PBOP Support  
 AEP WEST VIRGINIA TRANSMISSION COMPANY

PBOP	(A)	(B)
1	<b><u>Calculation of PBOP Expenses</u></b>	
2	<b><u>AEP System PBOP Rate</u></b>	
3	Total AEP System PBOP expenses	-\$72,936,887
4	Base Year relating to retired personnel	\$0
5	Amount allocated on Labor	-\$72,936,887
6	Total AEP System Direct Labor Expense	\$1,328,013,157
7	AEP System PBOP expense per dollar of direct labor (PBOP Rate)	-\$0.055
8	Currently Approved PBOP Rate	-\$0.058
9	Base PBOP TransCo labor expensed in current year	\$1,199,454
10	Allowable TransCo PBOP Expense for current year (Ln 8 * Ln 9)	-\$69,568
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)	-\$299,537
15	Actual PBOP Expense (Sum Lines 11-14)	-\$299,537
16	PBOP Adjustment Line 10 less Line 15	\$229,969

AEPTCo subsidiaries in PJM  
 Worksheet - P  
 DEPRECIATION RATES  
 FOR TRANSMISSION PLANT PROPERTY ACCOUNTS  
 EFFECTIVE AS OF 07/01/2015

AEP WEST VIRGINIA TRANSMISSION COMPANY

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

**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 I, 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.

**AEP East Consolidated Utility Capital Structure**  
**Consolidation of Operating Companies' Capital Structure @ December 31, 2016**  
**Worksheet Q Page 1**

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b>Development of Long Term Debt Balances at Year End</b>							
1 Bonds (112.18.c&d)	322,118,952	-	-	-	-	-	322,118,952
2 Less: Reacquired Bonds (112.19.c&d)	-	40,000,000	-	-	345,400,000	-	385,400,000
3 LT Advances from Assoc. Companies (112.20.c&d)	-	-	-	20,000,000	-	-	20,000,000
4 Senior Unsecured Notes (112.21.c&d) Excludes Spent Nuc Fuel Disp F	3,745,741,308	2,007,898,146	870,000,000	-	1,978,861,479	350,000,000	8,952,500,933
5 Less: Fair Value Hedges (See Note on Ln 7 below)	-	-	-	-	-	-	-
6 <b>Total Long Term Debt Balance</b>	4,067,860,260	1,967,898,146	870,000,000	20,000,000	1,633,461,479	350,000,000	8,909,219,885
7 NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (page 257, Column H of the							
<b>Development of Long Term Debt Interest Expense</b>							
8 Interest on Long Term Debt (256-257.33.i)	183,241,459	90,712,806	44,423,930	904,000	104,441,643	11,095,742	434,819,580
9 Amort of Debt Discount & Expense (117.63.c)	2,982,641	1,820,729	725,700	-	1,369,728	245,632	7,144,430
10 Amort of Loss on Reacquired Debt (117.64.c)	4,269,063	1,283,093	33,651	-	1,287,793	-	6,873,600
11 Less: Amort of Premium on Debt (117.65.c)	-	-	-	-	-	-	-
12 Less: Amort of Gain on Reacquired Debt (117.66.c)	-	1,712	-	-	-	-	1,712
13 Less: Hedge Interest on pp 256-257(i)	(1,128,890)	-	92,956	-	(1,853,567)	-	(2,889,501)
14 <b>LTD Interest Expense</b>	191,622,053	93,814,916	45,090,325	904,000	108,952,731	11,341,374	451,725,399
<b>Development of Cost of Preferred Stock and Preferred Dividends</b>							
15 Dividend Rate (p. 250-251. 7.a)	4.50%	4.125%			4.08%		
16 Par Value (p. 250-251. 8.c)	\$ 100.00	\$ 100.00			\$ 100.00		
17 Shares Outstanding (p.250-251. 8.e)	-	-	-	-	-	-	-
18 Monetary Value (Ln 16 * Ln 17)	-	-	-	-	-	-	-
19 Dividend Amount (Ln 15 * Ln 18)	-	-	-	-	-	-	-
20 Dividend Rate (p. 250-251. 7.a)		4.12%			4.20%		
21 Par Value (p. 250-251. 8.c)		\$ 100.00			\$ 100.00		
22 Shares Outstanding (p.250-251. 8.e)		-			-		
23 Monetary Value (Ln 21 * Ln 22)		-			-		
24 Dividend Amount (Ln 20 * Ln 23)		-			-		
25 Dividend Rate (p. 250-251. 7.a)		4.56%			4.40%		
26 Par Value (p. 250-251. 8.c)		\$ 100.00			\$ 100.00		
27 Shares Outstanding (p.250-251. 8.e)		-			-		
28 Monetary Value (Ln 26 * Ln 27)		-			-		
29 Dividend Amount (Ln 25 * Ln 28)		-			-		
30 Dividend Rate (p. 250-251. 7.a)					4.50%		
31 Par Value (p. 250-251. 8.c)					\$ 100.00		
32 Shares Outstanding (p.250-251. 8.e)					-		
33 Monetary Value (Ln 31 * Ln 32)					-		
34 Dividend Amount (Ln 30 * Ln 33)					-		
35 <b>Preferred Stock (Lns 18, 23, 28,33)</b>							
36 <b>Preferred Dividends (Lns 19, 24, 29,34)</b>							
<b>Development of Common Equity</b>							
37 Proprietary Capital (112.16.c)	3,582,763,277	2,151,747,058	668,401,428	37,530,838	2,117,544,466	412,839,052	8,970,826,119
38 Less: Preferred Stock (Ln 35 Above)	-	-	-	-	-	-	-
39 Less: Account 216.1 (112.12.c)	1,758,641	(6,674,314)	-	-	4,915,704	-	31
40 Less: Account 219.1 (112.15.c)	(9,136,157)	(16,256,513)	(1,354,460)	-	3,016,012	(125,061)	(23,856,179)
41 <b>Balance of Common Equity</b>	3,590,140,793	2,174,677,885	669,755,888	37,530,838	2,109,612,750	412,964,113	8,994,682,267
<b>Calculation of Capital Shares</b>							
42 Long Term Debt (Ln 6 Above)	4,067,860,260	1,967,898,146	870,000,000	20,000,000	1,633,461,479	350,000,000	8,909,219,885
43 Preferred Stock (Ln 35 Above)	-	-	-	-	-	-	-
44 Common Equity (Ln 41 Above)	3,590,140,793	2,174,677,885	669,755,888	37,530,838	2,109,612,750	412,964,113	8,994,682,267
45 <b>Total Company Structure</b>	7,658,001,053	4,142,576,031	1,539,755,888	57,530,838	3,743,074,229	762,964,113	17,903,902,152
46 LTD Capital Shares (Ln 42 / Ln 45)	53.12%	47.50%	56.50%	34.76%	43.64%	45.87%	49.76%
47 Preferred Stock Capital Shares (Ln 43 / Ln 45)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
48 Common Equity Capital Shares (Ln 44 / Ln 45)	46.88%	52.50%	43.50%	65.24%	56.36%	54.13%	50.24%
49 <b>Equity Capital Share Limit</b>	100.00%	100.00%	100.00%	100.00%	51.00%	100.00%	50.00%
50 LTD Capital Shares with Capital Equity Cap	53.12%	47.50%	56.50%	34.76%	49.00%	45.87%	50.88%
51 Preferred Stock Capital Shares	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
52 Common Equity Capital Shares with Capital Equity Cap	46.88%	52.50%	43.50%	65.24%	51.00%	54.13%	49.12%
<b>Calculation of Capital Cost Rate</b>							
53 LTD Capital Cost Rate (Ln 14 / Ln 6)	4.71%	4.77%	5.18%	4.52%	6.67%	3.24%	5.07%
54 Preferred Stock Capital Cost Rate (Ln 36 / Ln 35)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
55 Common Equity Capital Cost Rate	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b>Calculation of Weighted Capital Cost Rate</b>							
56 LTD Weighted Capital Cost Rate (Ln 50 * Ln 53)	2.50%	2.26%	2.93%	1.57%	3.27%	1.49%	2.58%
57 Preferred Stock Capital Cost Rate (Ln 51 * Ln 54)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
58 Common Equity Capital Cost Rate (Ln 52 * Ln 55)	5.39%	6.03%	5.00%	7.50%	5.86%	6.22%	5.64%
59 <b>Total Company Structure</b>	7.89%	8.30%	7.93%	9.07%	9.13%	7.71%	8.22%

**AEP East Consolidated Utility Capital Structure**  
**Consolidation of Operating Companies' Capital Structure @ December 31, 2015**  
**Worksheet Q Page 2**

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b>Development of Long Term Debt Balances at Year End</b>							
60 Bonds (112.18.c&d)	345,097,743	-	-	-	-	-	345,097,743
61 Less: Reacquired Bonds (112.19.c&d)	-	40,000,000	-	-	345,400,000	-	385,400,000
62 LT Advances from Assoc. Companies (112.20.c&d)	-	-	-	20,000,000	-	-	20,000,000
63 Senior Unsecured Notes (112.21.c&d) Excludes Spent Nuc Fuel Disp F	3,620,784,367	1,609,281,752	870,000,000	-	2,328,942,762	350,000,000	8,779,008,881
64 Less: Fair Value Hedges (See Note on Ln 66 below)	-	-	-	-	-	-	-
65 <b>Total Long Term Debt Balance</b>	<b>3,965,882,110</b>	<b>1,569,281,752</b>	<b>870,000,000</b>	<b>20,000,000</b>	<b>1,983,542,762</b>	<b>350,000,000</b>	<b>8,758,706,624</b>
66 NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (p. 257, Column H of the FF1)							
<b>Development of Long Term Debt Interest Expense</b>							
67 Interest on Long Term Debt (256-257.33.i)	188,068,200	79,376,715	43,405,169	904,000	117,119,422	7,144,374	436,017,880
68 Amort of Debt Discount & Expense (117.63.c)	2,916,356	1,779,096	716,313	-	1,595,208	171,512	7,178,485
69 Amort of Loss on Reacquired Debt (117.64.c)	3,960,759	1,283,093	33,624	-	1,311,350	-	6,588,826
70 Less: Amort of Premium on Debt (117.65.c)	-	-	-	-	-	-	-
71 Less: Amort of Gain on Reacquired Debt (117.66.c)	-	1,712	-	-	-	-	1,712
72 Less: Hedge Interest on pp 256-257(i)	(422,541)	1,676,623	92,956	-	(2,097,663)	-	(750,625)
73 <b>LTD Interest Expense</b>	<b>195,367,856</b>	<b>80,760,569</b>	<b>44,062,150</b>	<b>904,000</b>	<b>122,123,643</b>	<b>7,315,886</b>	<b>450,534,104</b>
<b>Development of Cost of Preferred Stock and Preferred Dividends</b>							
74 Dividend Rate (p. 250-251. 7.a)	4.50%	4.125%			4.08%		
75 Par Value (p. 250-251. 8.c)	\$ 100.00	\$ 100.00			\$ 100.00		
76 Shares Outstanding (p.250-251. 8.e)	-	-			-		
77 Monetary Value (Ln 75 * Ln 76)	-	-			-		
78 Dividend Amount (Ln 74 * Ln 77)	-	-			-		
79 Dividend Rate (p. 250-251. 7.a)		4.12%			4.20%		
80 Par Value (p. 250-251. 8.c)		\$ 100.00			\$ 100.00		
81 Shares Outstanding (p.250-251. 8.e)		-			-		
82 Monetary Value (Ln 80 * Ln 81)		-			-		
83 Dividend Amount (Ln 79 * Ln 82)		-			-		
84 Dividend Rate (p. 250-251. 7.a)		4.56%			4.40%		
85 Par Value (p. 250-251. 8.c)		\$ 100.00			\$ 100.00		
86 Shares Outstanding (p.250-251. 8.e)		-			-		
87 Monetary Value (Ln 85 * Ln 86)		-			-		
88 Dividend Amount (Ln 84 * Ln 87)		-			-		
89 Dividend Rate (p. 250-251. 7.a)					4.50%		
90 Par Value (p. 250-251. 8.c)					\$ 100.00		
91 Shares Outstanding (p.250-251. 8.e)					-		
92 Monetary Value (Ln 90 * Ln 91)					-		
93 Dividend Amount (Ln 89 * Ln 92)					-		
94 <b>Preferred Stock (Lns 77, 82, 87,92)</b>							
95 <b>Preferred Dividends (Lns 78, 83, 88,93)</b>							
<b>Development of Common Equity</b>							
96 Proprietary Capital (112.16.c)	3,475,050,089	2,036,408,552	663,073,876	29,626,191	1,986,574,950	406,461,375	8,597,195,033
97 Less: Preferred Stock (Ln 94 Above)	-	-	-	-	-	-	-
98 Less: Account 216.1 (112.12.c)	1,758,641	31,416	-	-	4,915,704	-	6,705,761
99 Less: Account 219.1 (112.15.c)	(2,792,656)	(16,739,231)	(1,645,475)	-	4,229,596	61,921	(16,885,845)
100 <b>Balance of Common Equity</b>	<b>3,476,084,104</b>	<b>2,053,116,367</b>	<b>664,719,351</b>	<b>29,626,191</b>	<b>1,977,429,650</b>	<b>406,399,454</b>	<b>8,607,375,117</b>
<b>Calculation of Capital Shares</b>							
101 Long Term Debt (Ln 65 Above)	3,965,882,110	1,569,281,752	870,000,000	20,000,000	1,983,542,762	350,000,000	8,758,706,624
102 Preferred Stock (Ln 94 Above)	-	-	-	-	-	-	-
103 Common Equity (Ln 100 Above)	3,476,084,104	2,053,116,367	664,719,351	29,626,191	1,977,429,650	406,399,454	8,607,375,117
104 <b>Total Company Structure</b>	<b>7,441,966,214</b>	<b>3,622,398,119</b>	<b>1,534,719,351</b>	<b>49,626,191</b>	<b>3,960,972,412</b>	<b>756,399,454</b>	<b>17,366,081,741</b>
105 LTD Capital Shares (Ln 101 / Ln 104)	53.29%	43.32%	56.69%	40.30%	50.08%	46.27%	50.44%
106 Preferred Stock Capital Shares (Ln 102 / Ln 104)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
107 Common Equity Capital Shares (Ln 103 / Ln 104)	46.71%	56.68%	43.31%	59.70%	49.92%	53.73%	49.56%
108 <b>Equity Capital Share Limit</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>51.00%</b>	<b>100.00%</b>	<b>50.00%</b>
109 LTD Capital Shares with Capital Equity Cap	53.29%	43.32%	56.69%	40.30%	50.08%	46.27%	50.44%
110 Preferred Stock Capital Shares	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
111 Common Equity Capital Shares with Capital Equity Cap	46.71%	56.68%	43.31%	59.70%	49.92%	53.73%	49.56%
<b>Calculation of Capital Cost Rate</b>							
112 LTD Capital Cost Rate (Ln 73 / Ln 65)	4.93%	5.15%	5.06%	4.52%	6.16%	2.09%	5.14%
113 Preferred Stock Capital Cost Rate (Ln 95 / Ln 94)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
114 Common Equity Capital Cost Rate	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b>Calculation of Weighted Capital Cost Rate</b>							
115 LTD Weighted Capital Cost Rate (Ln 109 * Ln 112)	2.63%	2.23%	2.87%	1.82%	3.08%	0.97%	2.59%
116 Preferred Stock Capital Cost Rate (Ln 110 * Ln 113)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
117 Common Equity Capital Cost Rate (Ln 111 * Ln 114)	5.37%	6.51%	4.98%	6.86%	5.74%	6.17%	5.69%
118 <b>Total Company Structure</b>	<b>7.99%</b>	<b>8.74%</b>	<b>7.85%</b>	<b>8.68%</b>	<b>8.82%</b>	<b>7.14%</b>	<b>8.29%</b>

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

Line	Appalachian Power Company	Indiana Michigan Power Company	Kentucky Power Company	Kingsport Power Company	Ohio Power Company	Wheeling Power Company	AEP East Operating Companies' Consolidated Capital Structure
<b><u>Development of Average Long Term Debt</u></b>							
119 Average Bonds (Ln 1 + Ln 60) / 2	333,608,348	-	-	-	-	-	333,608,348
120 Less: Average Reacquired Bonds (Ln 2 + Ln 61) / 2	-	40,000,000	-	-	345,400,000	-	385,400,000
121 Average LT Advances from Assoc. Companies (Ln 3 + Ln 62) / 2	-	-	-	20,000,000	-	-	20,000,000
122 Average Senior Unsecured Notes (Ln 4 + Ln 63) / 2	3,683,262,838	1,808,589,949	870,000,000	-	2,153,902,121	350,000,000	8,865,754,907
123 Less: Average Fair Value Hedges (See Note on Ln 125 below)	-	-	-	-	-	-	-
124 <b>Average Balance of Long Term Debt</b>	<b>4,016,871,185</b>	<b>1,768,589,949</b>	<b>870,000,000</b>	<b>20,000,000</b>	<b>1,808,502,121</b>	<b>350,000,000</b>	<b>8,833,963,255</b>
125 NOTE: The balance of fair value hedges on outstanding long term debt are to be excluded from the balance of long term debt included in the formula's capital structure. (p. 257, Column H of the FF1)							
<b><u>Development of 2016 Long Term Debt Interest Expense</u></b>							
126 Interest on Long Term Debt (256-257.33.i)	183,241,459	90,712,806	44,423,930	904,000	104,441,643	11,095,742	434,819,580
127 Amort of Debt Discount & Expense (117.63.c)	2,982,641	1,820,729	725,700	-	1,369,728	245,632	7,144,430
128 Amort of Loss on Reacquired Debt (117.64.c)	4,269,063	1,283,093	33,651	-	1,287,793	-	6,873,600
129 Less: Amort of Premium on Debt (117.65.c)	-	-	-	-	-	-	-
130 Less: Amort of Gain on Reacquired Debt (117.66.c)	-	1,712	-	-	-	-	1,712
131 Less: Hedge Interest on pp 256-257(i)	(1,128,890)	-	92,956	-	(1,853,567)	-	(2,889,501)
132 <b>2016 LTD Interest Expense</b>	<b>191,622,053</b>	<b>93,814,916</b>	<b>45,090,325</b>	<b>904,000</b>	<b>108,952,731</b>	<b>11,341,374</b>	<b>451,725,399</b>
<b><u>2016 Cost of Preferred Stock and Preferred Dividends</u></b>							
133 Average Balance of Preferred Stock (Ln 35 + Ln 94) / 2	-	-	-	-	-	-	-
134 2016 Preferred Dividends (Ln 36)	-	-	-	-	-	-	-
<b><u>Development of Average Common Equity</u></b>							
135 Average Proprietary Capital (Ln 37 + Ln 96) / 2	3,528,906,683	2,094,077,805	665,737,652	33,578,515	2,052,059,708	409,650,214	8,784,010,576
136 Less: Average Preferred Stock (Ln 133 Above)	-	-	-	-	-	-	-
137 Less: Average Account 216.1 (Ln 39 + Ln 98) / 2	1,758,641	(3,321,449)	-	-	4,915,704	-	3,352,896
138 Less: Average Account 219.1 (Ln 40 + Ln 99) / 2	(5,964,407)	(16,497,872)	(1,499,968)	-	3,622,804	(31,570)	(20,371,012)
139 <b>Average Balance of Common Equity</b>	<b>3,533,112,449</b>	<b>2,113,897,126</b>	<b>667,237,620</b>	<b>33,578,515</b>	<b>2,043,521,200</b>	<b>409,681,784</b>	<b>8,801,028,692</b>
<b><u>Calculation of Capital Shares</u></b>							
140 Average Balance of Long Term Debt (Ln 124 Above)	4,016,871,185	1,768,589,949	870,000,000	20,000,000	1,808,502,121	350,000,000	8,833,963,255
141 Average Balance of Preferred Stock (Ln 133 Above)	-	-	-	-	-	-	-
142 Average Balance of Common Equity (Ln 139 Above)	3,533,112,449	2,113,897,126	667,237,620	33,578,515	2,043,521,200	409,681,784	8,801,028,692
143 Average of Total Company Structure	7,549,983,634	3,882,487,075	1,537,237,620	53,578,515	3,852,023,321	759,681,784	17,634,991,947
144 Average Balance of LTD Capital Shares (Ln 140 / Ln 143)	53.20%	45.55%	56.60%	37.33%	46.95%	46.07%	50.09%
145 Average Balance of Preferred Stock Capital Shares (Ln 141 / Ln 143)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
146 Average Balance of Common Equity Capital Shares (Ln 142 / Ln 143)	46.80%	54.45%	43.40%	62.67%	53.05%	53.93%	49.91%
147 <b>Equity Capital Share Limit</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>	<b>51.00%</b>	<b>100.00%</b>	<b>50.00%</b>
148 LTD Capital Shares with Capital Equity Cap	53.20%	45.55%	56.60%	37.33%	49.00%	46.07%	50.54%
149 Preferred Stock Capital Shares	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
150 Common Equity Capital Shares with Capital Equity Cap	46.80%	54.45%	43.40%	62.67%	51.00%	53.93%	49.46%
<b><u>Calculation of Capital Cost Rate</u></b>							
151 LTD Capital Cost Rate (Ln 132 / Ln 124)	4.77%	5.30%	5.18%	4.52%	6.02%	3.24%	5.11%
152 Preferred Stock Capital Cost Rate (Ln 134 / Ln 133)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
153 Common Equity Capital Cost Rate	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%	11.49%
<b><u>Calculation of Weighted Capital Cost Rate</u></b>							
154 LTD Weighted Capital Cost Rate (Ln 148 * Ln 151)	2.54%	2.42%	2.93%	1.69%	2.95%	1.49%	2.58%
155 Preferred Stock Capital Cost Rate (Ln 149 * Ln 152)	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
156 Common Equity Capital Cost Rate (Ln 150 * Ln 153)	5.38%	6.26%	4.99%	7.20%	5.86%	6.20%	5.68%
157 <b>ACTUAL WEIGHTED AVG COST OF CAPITAL</b>	<b>7.91%</b>	<b>8.67%</b>	<b>7.92%</b>	<b>8.89%</b>	<b>8.81%</b>	<b>7.69%</b>	<b>8.27%</b>