Appalachian Power Company

REFERENCING File Name:

		Appalachian Power C	Company	REFERENCI	NG File Name:
				AEP APCo Va FRR 2017 Formula Update	Workpapers (2016 data used 2017 filing)
Schedule	Description	<u>Amount</u>		Sheet / Tab	Cell
<u> </u>					<del></del>
B-1	Production Billing kW				
B-2	Production System Peak Demand	5,636.3		WP-1	D18
B-4	Off System Sales for Resale				
	(Demand Portion)	239,233		WP-15D	B10
	Ancillary Service Revenue	0	B-4 treats as credit	WP-2	F13
B-4	Energy Credit Revenue	16,425,016	B-4 treats as credit	WP-15D	D13
B-5	Plant Held for Future Use - TOTAL	428,415		WP-19	C14
20	Plant Held for Future Use - DEMAND	428,415		WP-19	D14
	Plant Held for Future Use - ENERGY	0		WP-19	E14
	Pollution Control CWIP	0		WP-3	sum(D27+D30)
	Non-Pollution Control CWIP (50%)	0		WP-3	(D28+D29)x50%
	Prepayments Nonlabor	6,797,715		WP-5c	D24
				WP-5c	F24
D.0	Prepayments Labor	239,500			
B-6	Plant in Service - TOTAL COMPANY	12,885,432,977		WP-6a	G38
	Production Plant - TOTAL COMPANY	6,197,173,523		WP-6a	G11
	Production Plant - DEMAND	6,197,173,523			
	Production Plant - ENERGY	0		WD of	Dia
	Accum. Depreciation - TOTAL CO.	4,200,000,379		WP-6b	D16
	Accum. Depreciation - PRODUCTION ONLY	2,155,406,212		WP-6b	E16
	Accum. Depreciation - GENERAL & INTANGIBLE	135,891,016		WP-6b	H16
	Accum. Deferred Income Taxes - TOTAL CO.	2,235,083,008			
B-6a	Acct 190				
	Excluded Items	197,612,788		WP-8ai	Q126
	100% Production (Energy)	(154,591)		WP-8ai	Q112
	100% Production (Demand)	91,025,487		WP-8ai	Q114
	Labor Related	7,410,827		WP-8ai	Q111
	Acct 281				
	Excluded Items	0		WP-8a	
	100% Production (Energy)	0		WP-8a	
	100% Production (Demand)	302,975,148		WP-8a	Q21
	Labor Related	0		WP-8a	
	Acct 282	_		•	
	Excluded Items	1,063,083,567		WP-8a	Q74
	100% Production (Energy)	(3,497)		WP-8a	Q71
	100% Production (Demand)	736,300,797		WP-8a	Q73
	Labor Related	(65,939)		WP-8a	Q70
	Acct 283	(03,939)		WF-0a	Q10
	Excluded Items	156,752,912		WP-8a	Q191
				WP-8a	Q188
	100% Production (Energy)	31,858,941		WP-8a	
	100% Production (Demand)	208,375,901			Q190
	Labor Related	30,784,566		WP-8a	Q187
	Acct 255	00.400		MD 0-	D004:0004
	Excluded Items	68,489		WP-8a	R204+S204
	100% Production (Energy)	0		WP-8a	
	100% Production (Demand)	846,634		WP-8a	Q204
_	Labor Related	0		WP-8a	
B-7	General Plant				
	Land	15,041,991		WP-6c	C18
	Structures	117,987,196		WP-6c	C20
	Office Equipment	7,428,308		WP-6c	C22
	Transportation	8,674		WP-6c	C24
	Stores Equipment	1,566,620		WP-6c	C26
	Tools, Shop & Garage Equipment	29,521,729		WP-6c	C29+C33
	Lab Equipment	2,828,413		WP-6c	C31
	Communication Equipment	39,467,281		WP-6c	C35
	Miscellaneous Equipment & Other	6,817,434		WP-6c	C37
	Other Tangible Property	0		WP-6c	C39
	Asset Retirement Costs	781,258		WP-6c	C46-C44
	TOTAL GENERAL PLANT	221,448,904			
	Intangible Plant	105,361,383		WP-6a	G35
		100,001,000			
	Total Wages & Salaries (Excluding A & G and SF&H)	156,304,395		WP-9a	E30
	Production Wages & Salaries	84,058,602		WP-9b	F50
	:	04,000,002		00	. 55
	Allocation Factors for Production-Related General				
	Plant based on Production Wages & Salaries				
	Demand	0.6822922418		WP-9b	D52
		0.3177077582		AAL-AN	DJ2
	Energy	0.3177077382			
D O	Account 151 Fuel Inventory	407.000.000		WD 55	M42
B-9	Account 151 Fuel Inventory	107,260,888		WP-5b	M13
	Materials & Supplies - Total	98,370,408		WD =	1/40
	Production	71,033,005		WP-5a	K10
	Transmission	13,020,757		WP-5a	K11
	Distribution	14,316,646		WP-5a	K12
	Account 158 - Allowances	23,209,770		WP-5a	C21

#### Appalachian Power Company Input Statement 12 Months Ending 12/31/2016 (actuals) for 2017

	12 Months Ending 12/31/2016 (actuals) for 2017	Appalachian Power Company	REFERENCING F	ile Name
		rippalacilian i swell company	AEP APCo Va FRR 2017 Formula Update Wor	
Schedule	<u>Description</u>	<u>Amount</u>	Sheet / Tab	Cell
	Account 120 Nivelees Fivel	0	WD Fb	F47
	Account 120 Nuclear Fuel Account 152 Undistributed	4,735,695	WP-5b WP-5b	E17 B17
	7,000 unit 102 ortalourbatou	1,1 30,000	35	2
B-10	ADMINISTRATIVE & GENERAL EXPENSES			
	A & G Salaries # 920	39,352,838	WP-10a	D163
	Outside Services # 923	9,583,953	WP-10a	D166
	Employee Pensions & Benefits # 926	16,475,862	WP-10a	D172
	Office Supplies # 921	5,221,885	WP-10a	D164
	Injuries & Damages # 925	7,776,985	WP-10a	D168
	Franchise Requirements # 927	0	WP-10a	D173
	Duplicate Charges # 929	(162,751) 9,232,120	WP-10a WP-10a	D175
	Miscellaneous General Expense # 930 Advertising Expense	340.610	WP-10a WP-10a	sum(D176:D178) D176
	Dues & Memberships	0	WP-10a	D178
	Adm. Expense Transfer - Cr. # 922	(5,882,761)	WP-10a	D165
	Property Insurance # 924	3,238,061	WP-10a	D167
	Regulatory Comm. Expense # 928	4,280,043	WP-10a	D174
	Reg. Comm. Expense Production Related	1,494,528	WP-11	E43
	Rents # 931	1,618,168	WP-10a	D179
	Maintenance of General Plant # 935	12,016,949	WP-10a	D183
B-11	Common Stock	3,590,140,794	WP-12a	M11
<i>-</i>	Bonds (Acc 221)	322,118,952	WP-13	E12
	Less: Reacquired Bonds (Acc 222)	0	WP-13	G12
	Advances from Assoc Companies (Acc 223)	0	WP-13	C12
	Other Long Term Debt (Acc 224)	3,745,741,307	WP-13	K12
B-12	Long Term Debt	4,067,860,259	WP-13	O12
2 .2	Interest on Long Term Debt	183,241,458	WP-13	F39
	Amort Debt Disc/ Exp	2,982,641	WP-13	F27
	Amort Loss Reacg	4,269,063	WP-13	F28
	Amort. Premium on Debt	0	WP-13	F32
	Amort. Gain on Debt	0	WP-13	F34
B-13	Preferred Stock	0	WP-12b	B13
D-13	Preferred Stock Dividends	0	WP-12b	K13
	Premium on Preferred Stock	0	WP-12b	D13
B-13b	Total Proprietary Capital	0	WD 40-	E44 : E44 : O44
	Preferred Stock (Acc 204, pfd portion of Acc 207-213) Unappropriated Undistributed Subsidiary Earnings (Acc 216.1)	1,758,641	WP-12a WP-12a	E11+F11+G11 I11
	Accumulated Comprehensive Other Income (Acc 219)	(9,136,157)	WP-12a	K11
	Total Proprietary Capital	3,582,763,278	WP-12a	C11
	, , ,			
D 44	Cool Hondling	24 220 005	WD 40	C20
B-14	Coal Handling Lignite Handling	21,320,605 0	WP-18	C20
	Fly Ash Rev/Exp	(147,959)	WP-18	C21
	Other Production Expenses #557	8,409,525	WP-10a	D56
	System Control/Load Dispatching #556	14,728,855	WP-10a	D55+D73+D77+D100
	Other Steam Gen & Other Power Gen Exp			
	Total	219,754,102	WP-14	G62
	Demand	136,438,145	WP-14	G60
	Energy Purchased Power (Total) # 555	83,315,957	WP-14 WP-15c	G61 E10
	Purchased Power (Total) # 555  Purchased Power (Demand) # 555	358,217,720 46,028,823	WP-15c	B10 + D10
	Purchased Power (Energy) # 555	312,188,897	WP-15c	C10
	· · · · · · · · · · · · · · · · · · ·			
B-16	Steam Production Plant Depreciation Expense	169,806,820	WP-6d	B9
	Hydro Production Plant Conventional Depreciation Expense	3,475,632	WP-6d	B10
	Hydro Production Plant Pumped Storage Depreciation Expense Other Production Plant Depreciation Expense	2,644,153 14,779,598	WP-6d WP-6d	B11 B12
	General & Intangible Plant Depreciation Expense	18,471,389	WP-6d	B15+B16
	Production Plant Accretion Expense	0	WI -Od	B10+B10
	· ·			
B-17	Payroll Related Other Taxes	8,400,592	WP-8c	C9
	Property Related Other Taxes	63,547,826	WP-8c	C11
	Production Related Taxes Other	22,061,084 15,832,348	WP-8c WP-8c	C12 C14
	Not Allocated (Gross Receipts and Dist. Related)	13,395,252	WP-8c	C14 C15
		.0,000,202	**** 55	0.0
B-19	Federal Income Tax Rate	35.0000%	WP-8b	C20
	State Income Tax Rate (Composite)	3.7200%	WP-8b	C21
	Percent of FIT deductible for state purposes Amortized Investment Tax Credit (enter negative)	0.0000% 0	WP-8b WP-8b	C22 D18
	Amorazed investment rax Oredit (enter negative)	U	AAL-OD	DIO

### Appalachian Power Company Input Statement 12 Months Ending 12/31/2016 (actuals) for 2017

Appalachian Power Compan				
	Anna	lachian.	Power	Company

#### REFERENCING File Name:

		Appaiachian Power Co	ompany	REFERENCIN	NG File Name:
				AEP APCo Va FRR 2017 Formula Update	Workpapers (2016 data used 2017 filing)
Schedule	<u>Description</u>	<u>Amount</u>		Sheet / Tab	Cell
B-11	Return on Common	10.40%		na	
D-11	Return on Common	10.4070		IIa	
	Year Ending Month	12			
	Year Ending Day	31			
	Year Ending Year	2016		na	
B-22	Losses and Imbalance Ancillary Svc. Rev.	0			
	GSU Data Input				
B-3	GSU & Other Production Related Investment	66,708,910	December, 2016	WP-16	H32
B-3	Plant in Service - TRANSMISSION	2,795,292,451	December, 2016	WP-6a	G17
B-3	Transmission Depreciation Expense	41,155,895	December, 2016	WP-6d	B13
B-3	Transmission Substation Acct. 353 Investment	1,230,490,509	December, 2016	WP-17	J11
B-3	Transmission O&M (Accts 562 & 570)	5,435,463	December, 2016	WP-10a	sum(D78+D91)
B-6	GSU Accumulated Depreciation	21,229,114	December, 2016	WP-16	132

#### Appalachian Power Company Formula Rate Template - Capacity Rate 12 Months Ending 12/31/2016 (actuals)

	RATE	CAPACITY	Amount \$
	\$/MW/Day	MW	(1) x (2)
	(1)	(2)	(3)
Capacity Daily Charge:			
1. Reference	P.2		Col (1) x (2)
2. Amount	\$393.24825	5,636	\$2,216,465.12

Note A: Rate will be applied to peak obligation demands at or adjusted to generation level (including losses).

#### 1. Capacity Daily Rates

Where: Annual Production Fixed Cost, P.4, L. 8

Note A: Average of demand at time of PJM five highest daily peaks.

Workpapers -- WP1

### GENERATOR STEP UP TRANSFORMER WORKPAPER 12 Months Ending 12/31/2016 (actuals) for 2017

Appendix 2 Page 3

1.	GSU & Associated Investment	Reference (1) Note A	PRODUCTION Amount (2) 66,708,910
2.	Total Transmission Investment	FF1, P.207, L.58, Col.g	2,795,292,451
3.	Percent (GSU to Total Trans. Investment)	L.1 / L.2	2.39%
4.	Transmission Depreciation Expense	FF1, P.336, L.7, Col.b	41,155,895
5.	GSU Related Depreciation Expense	L.3 x L.4	982,174
6.	Station Equipment Acct. 353 Investment	Note B	1,230,490,509
7.	Percent (GSU to Acct. 353)	L.1 / L.6	5.42%
8.	Transmission O&M (Accts 562 & 570)	FF1,P.321, L. 93, Col.b, and L.107, Col.b	5,435,463
9.	GSU & Associated Investment O&M	L.7 x L.8	294,674

Note A: Workpapers -- WP-16 Note B: Workpapers -- WP-17

1.	Return on Rate Base	Reference (1) P.5, L.18, Col.(2)	PRODUCTION Amount (2) \$227,022,815
2.	Operation & Maintenance Expense	P.14, L.15, Col.(2)	\$243,817,513
3.	Depreciation Expense	P.16, L.9, Col.(2) Note A	\$198,466,056
4.	Taxes Other Than Income Taxes	P.17, L.6, Col.(3)	\$66,247,348
5.	Income Tax	P.18, L.5, Col.(2)	\$89,881,055
6.	Sales for Resale	Note B	\$16,425,016
7.	Sales for Resale (Energy Credit)	Note C	\$0
8.	Annual Production Fixed Cost	Sum (L.1 : L.5) - (L.6 +L.7)	\$809,009,770

Note A: See page 20 for depreciation rates by plant account.

Note B: Capacity related revenues associated with sales as reported in Account 447

(includes pool capacity demand). See Workpaper 15d.

Note C: Workpaper 15d

1.	ELECTRIC PLANT	Reference	Amount (1)	Demand (2)	Energy (3)
2. 3.	Gross Plant in Service Less: Accumulated Depreciation	P.6, L.4, Col.(2)-(4) P.6, L.11, Col.(2)-(4)	6,439,216,878 2,249,715,861	6,383,511,764 2,226,497,608	55,705,114 23,218,253
4.	Net Plant in Service	L.2 - L.3	4,189,501,017	4,157,014,156	32,486,861
5.	Less: Accumulated Deferred Taxes	P.6, L.12, Col.(2)-(4)	1,212,790,828	1,173,375,724	39,415,104
6.	Plant Held for Future Use (Note A)	FF1, P.214	428,415	428,415	0
7.	Subtotal - Electric Plant	L.4 - L.5 + L.6	2,977,138,603	2,984,066,847	(6,928,243)
	WORKING CAPITAL				
8. 9. 10. 11.	Materials & Supplies Fuel Nonfuel Total M & S	P.9, L.2, Col.(2)-(4) P.9, L.8, Col.(2)-(4) L.9 + L.10	111,996,583 71,033,005 183,029,588	0 71,033,005 71,033,005	111,996,583 0 111,996,583
12. 13. 14.	Prepayments Nonlabor (Note B) Prepayments Labor (Note B) Prepayments Total (Note B)	L.12 + L. 13	3,397,011 128,800 3,525,811	3,367,624 87,879 3,455,503	29,387 40,921 70,308
15.	Cash Working Capital	P.8, L.7, Col.(1)-(3)	37,129,658	24,686,752	12,442,906
16.	Total Rate Base	L.7 + L.11 + L.14 + L.15	3,200,823,661	3,083,242,107	117,581,554
17.	Weighted Cost of Capital	P.11, L.4, Col.(4)	7.36%	7.36%	7.36%
18.	Return on Rate Base	L.16 x L.17	235,680,486	227,022,815	8,657,671

Note A: Workpapers -- WP-19

Note B: Workpapers -- WP-5c Prepayments include amounts booked to Account 165. Nonlabor related prepayments allocated to the production function based on gross plant on P.6, L.7. Labor related prepayments allocated to production function based on wages and salaries on P.7, Note B.

		Sys	stem	Ī		PRODUCTION	
		Reference	Amount	Reference	Amount	Demand	Energy
1.	GROSS PLANT IN SERVICE (Note A)		(1)		(2)	(3)	(4)
2.	Plant in Service (Note C)	L. 14	42.005.422.077	1.46	6.262.002.422	0.000.000.400	0
3.	Allocated General & Intangible Plant	L. 14	12,885,432,977	L. 16	6,263,882,433	6,263,882,433	0
-				P.7, Col(3), L.25	175,334,445	119,629,332	55,705,114
4.		L.2 + L.3 Note A	12,885,432,977		6,439,216,878	6,383,511,764 99%	55,705,114 1%
5.		1101071		Col.(2), L.4	6,439,216,878	6,383,511,764	55,705,114
6.				Col.(1), L.4	12,885,432,977	12,885,432,977	12,885,432,977
7.			100.00%	L.5/L.6	49.97%	49.54%	0.43%
8.	ACCUMULATED PROVISION FOR DEPRECIA (Note A)	TION					
9.	Plant in Service (Note D)	L.18	4,200,000,379	L.20	2,176,635,326	2,176,635,326	0
10.	Allocated General Plant		135,891,016	Note B	73,080,535	49,862,282	23,218,253
11.	Total	L.9 + L.10			2,249,715,861	2,226,497,608	23,218,253
12.	ACCUMULATED DEFERRED TAXES (Note A)	Note E	2,235,083,008	P.6a, L. 52	1,212,790,828	1,173,375,724	39,415,104

Note A: Excludes ARO amounts. Note B: (% From P.7, Col.(3), L.28)

Note C: Includes Generator Step-Up Transformers and Other Generation related investments previously included in the transmission accounts

Note D: Includes Accumulated Depreciation associated with the Generator Step-Up Transformers and Other Generation investments.

Note E: WP--8a, WP--8ai

GSU DETAILS [Lns. 2 and 9 above]  13 GROSS PLANT IN SERVICE	System Reference	Amount	(1)	Reference	PRODUCTION Amount (2)	Demand (3)	Energy	(4)
<ul><li>14 Plant in Service (Note C)</li><li>15 Plant in Service (Note C) (GSU)</li><li>16 Plant in Service (Note C)</li></ul>	WP6a, Ln. 11 P.3, L.1, Col.(2) Ln. 14 + L.15		12,885,432,977	WP6a, Ln. 2	6,197,173,523 66,708,910 6,263,882,433	6,197,173, 66,708, 6,263,882,	910	0 0
17 Accumulated Provision for Depreciation 18 Accumulated Prov. Depreciation (Note D) 19 Accumulated Prov. Dep. (GSU) 20 Total Accumulated Depreciation (Note D)	WP6b, Ln. 7 WP16 Ln. 18+ L.19		4,200,000,379	WP6b, Ln. 7	(2,155,406,212) 21,229,114 (2,134,177,097)	21,229,	114 <sup>′</sup>	0 0

1 2	Account 190 190	<u>Description</u> Excluded Items 100% Production (Energy)	<u>Year End Balance</u> 197,612,788 (154,591)	<u>Exclusions</u> 197,612,788	100% Production (Energy Related) (154,591)	100% Production (Demand Related)	<u>Labor</u>
3 4	190 190 190	100% Production (Energy) 100% Production (Demand) Labor Related	91,025,487 7,410,827		(154,591)	91,025,487	7,410,827
5	190	Total	295,894,511	197,612,788	(154,591)	91,025,487	7,410,827
6		Production Allocation		0.00%	100.00%	100.00%	100.00%
7		(Gross Plant or Wages/Salaries)		-	(154,591)	91,025,487	7,410,827
0		Demond Deleted				04 005 407	5.050.050
8 9		Demand Related Energy Related			(154,591)	91,025,487	5,056,350 2,354,477
10		Energy Rolated			Direct	Direct	B-7, Note B
11	281	Excluded Items		-			
12 13	281 281	100% Production (Energy) 100% Production (Demand)	(302,975,148)		-	(302,975,148)	
14	281	Labor Related	(002,070,110)			(002,070,110)	-
15	281	Total	(302,975,148)	-	-	(302,975,148)	-
16		Production Allocation		0.00%	100.00%	100.00%	100.00%
17		(Gross Plant or Wages/Salaries)		-	-	(302,975,148)	-
18		Demand Related			-	(302,975,148)	-
19		Energy Related					-
20		Allocation Basis			Direct	Direct	B-7, Note B
			/	//\			
21 22	282 282	Excluded Items 100% Production (Energy)	(1,063,083,567) 3,497	(1,063,083,567)	3,497		
23	282	100% Production (Energy)	(736,300,797)		3,497	(736,300,797)	
24	282	Labor Related	65,939			(,,,	65,939
25	282	Total	(1,799,314,928)	(1,063,083,567)	3,497	(736,300,797)	65,939
26 27		Production Allocation (Gross Plant or Wages/Salaries)		0.00%	100.00% 3,497	100.00% (736,300,797)	100.00% 65,939
		-		-	3,437		
28 29		Demand Related Energy Related			- 3,497	(736,300,797)	44,990 20,949
30		Allocation Basis			Direct	Direct	B-7, Note B
31	283	Excluded Items	(156,752,912)	(156,752,912)			
32	283	100% Production (Energy)	(31,858,941)	(:,:-=,-:-,	(31,858,941)		
33	283	100% Production (Demand)	(208,375,901)			(208, 375, 901)	
34	283	Labor Related	(30,784,566)	(450 750 040)	(24.050.044)	(000 075 004)	(30,784,566)
35 36	283 283	Total Production Allocation	(427,772,320)	(156,752,912)	(31,858,941)	(208,375,901) 100.00%	(30,784,566)
37	200	(Gross Plant or Wages/Salaries)		-	(31,858,941)	(208,375,901)	(30,784,566)
38		Demand Related			-	(208,375,901)	(21,004,071)
39		Energy Related			(31,858,941)	0	(9,780,496)
40		Allocation Basis			Direct	B-6, L. 7	B-7, Note B
41	255	Excluded Items	(68,489)	(68,489)			
42	255	100% Production (Energy)	-	(55,155)	-		
43	255	100% Production (Demand)	(846,634)			(846,634)	
44 45	255 255	Labor Related Total	(915,123)	(68,489)		(846,634)	<u>-</u>
46	255	Production Allocation	(010,120)	0.00%	100.00%	100.00%	100.00%
47		(Gross Plant or Wages/Salaries)		-	-	(846,634)	-
						Direct	
48		Summary Production Related ADIT	Total	Demand	Energy		
49		P Plant (Energy Related)	(32,010,035)	-	(32,010,035)		
50		P Plant (Demand Related) Labor Related	(1,157,472,993) (23,307,800)	(1,157,472,993)	0 (7,405,069)		
51 52		Total	(1,212,790,828)	(15,902,731)	(39,415,104)		
-			(.,,_,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(1,1.0,010,124)	(55,115,154)		

Source: Functionalized balances for Accounts 190, 281, 282, 283 and 255 from WP-8a and 8ai.

#### General Plant Accounts 101 and 106

	Total		Related to			
	System	Allocation	Production			
	(Note A)	Factor	(1) x (2)	Demand	Energy	FERC Form 1 Reference
1. GENERAL PLANT	(1)	(2)	(3)	(4)	(5)	
2.						
3. Land	15,041,991	Note B	8,089,400	5,519,335	2,570,065	P.207, L.86, Col.(g)
General Offices	0		0	0	0	
<ol><li>Total Land</li></ol>	15,041,991		8,089,400	5,519,335	2,570,065	P.207, L.86, Col.(g)
6.						
7. Structures	117,987,196	Note B	63,452,079	43,292,861	20,159,218	P.207, L.87, Col.(g)
General Offices	0		0	0	0	
Total Structures	117,987,196		63,452,079	43,292,861	20,159,218	P.207, L.87, Col.(g)
10.						
11. Office Equipment	7,428,308	Note B	3,994,854	2,725,658	1,269,196	P.207, L.88, Col.(g)
12. General Offices	0		0	0	0	
13. Total Office Equipment	7,428,308		3,994,854	2,725,658		P.207, L.88, Col.(g)
14. Transportation Equipment	8,674	Note B	4,665	3,183		P.207, L.89, Col.(g)
<ol><li>Stores Equipment</li></ol>	1,566,620	Note B	842,509	574,837	267,672	P.207, L.90, Col.(g)
<ol><li>Tools, Shop &amp; Garage Equipment</li></ol>	29,521,729	Note B	15,876,427	10,832,363	5,044,064	P.207, L.91, L. 93, Col.(g)
17. Lab Equipment	2,828,413	Note B	1,521,086	1,037,825	483,261	P.207, L.92, Col.(g)
<ol><li>Communication Equipment</li></ol>	39,467,281	Note B	21,225,024	14,481,669	6,743,355	P.207, L.94, Col.(g)
<ol><li>Miscellaneous Equip &amp; Other</li></ol>	6,817,434	Note B	3,666,333	2,501,511	1,164,822	P.207, L.95, Col.(g)
<ol><li>Subtotal General Plant</li></ol>	220,667,646		118,672,375	80,969,241	37,703,134	P.207, L.96, Col.(g)
21. PERCENT		Note C	53.78%	36.69%	17.09%	
22. Other Tangible Property	0	Note D	0	0	0	P.207, L. 97, Col.(g)
23. TOTAL GENERAL PLANT	220,667,646		118,672,375	80,969,241	37,703,134	
24. INTANGIBLE PLANT	105,361,383	Note B	56,662,070	38,660,091	18,001,979	P.205, L.5, Col.(g)
25. TOTAL GENERAL AND INTANGIBLE	326,029,029		175,334,445	119,629,332	55,705,114	L.23 + L.24
26. PERCENT		Note E	53.78%	36.69%	17.09%	

Page 2 of 2

NOTE A: See Workpaper 6c.

NOTE B: Allocation factors based on wages and salaries in electric operations and maintenance expenses excluding administrative and general expenses:

	1	
а	Total wages and salaries in electric operation and maintenance expenses excluding	
	administrative and general expense, FF1, P.354, Col.(b), Ln.28 - L.27 (see workpaper 9a).	156,304,395
b	Production wages and salaries in electric operation and maintenance expense,	
	FF1, P.354, Col.(b), L.20. (see WP-9a)	84,058,602
С	c. Ratio (b / a)	53.779%

NOTE C: L.20, Col.(3) / L.20, Col.(1) NOTE D: Directly assigned to Production NOTE E: L.25, Col.(3) / L.25, Col.(1)

	Reference	Amount (1)	PRODUCTION Demand (2)	Energy (3)
Total Production Expense Excluding     Fuel Used In Electric Generation	P.14, L.12 Col.(1)-(3)	622,282,848	205,605,348	416,677,500
Less Fuel Handling / Sale of Fly Ash     Less Purchased Power	P.14, L.1 thru L. 3 Col.(1)-(3) P.14, L.11 Col.(1)-(3)	(21,172,646) (358,217,720)	0 (46,028,823)	(21,172,646) (312,188,897)
4. Other Production O&M	Sum (L.1 thru L.3)	242,892,482	159,576,525	83,315,957
5. Allocated A&G	P.10, L.17 Col.(3)-(5)	54,144,785	37,917,491	16,227,295
6. Total O&M for Cash Working Capital Calculation	L.4 + L.5	297,037,267	197,494,016	99,543,252
7. O&M Cash Requirements	=45 / 360 x L.6	37,129,658	24,686,752	12,442,906

#### SYSTEM PRODUCTION

1.	Material & Supplies (Note A)	Reference	Amount (1)	Reference	Amount (2)	Demand (3)	Energy (4)
2.	Fuel (Note C)	FF1, P.110, L. 45,46 Workpapers WP-5b	111,996,583		111,996,583	0	111,996,583
3.	Non-Fuel						
4.	Production	Note D	71,033,005	100% Col. 1	71,033,005	71,033,005	0
5.	Transmission		13,020,757	0	0	0	0
6.	Distribution		14,316,646	0	0	0	0
7.	General		0	Note B	0	0	0
8.	Total	L.4 + L.5 + L.6 + L.7	98,370,408		71,033,005	71,033,005	0
9.	Account 158 Allowances	Note D	23,209,770		23,209,770	0	23,209,770

Note A: Year end balance.

Note B: Column (1) times % from P.7, Col.(3), L.26.

Note C: Workpapers WP-5b Note D: Workpapers WP-5a

			Syste	m		Product	tion		
		Account	Reference	Amount (1)	Allocation Factor % (2)	Amount (3)	Demand (4)	Energy (5)	FERC Form 1 Reference
1.	ADMINISTRATIVE & GENERAL EXPENSE			( )	( )	(-7	( )	(-)	
2. 3. 4. 5. 6. 7. 8. 9.	RELATED TO WAGES AND SALARIES A&G Salaries Outside Services Employee Pensions & Benefits Office Supplies Injuries & Damages Franchise Requirements Duplicate Charges - Cr.	920 923 926 921 925 927 929	Workpapers 10-a Workpapers 10-a Workpapers 10-a Workpapers 10-a Workpapers 10-a Workpapers 10-a	39,352,838 9,583,953 16,475,862 5,221,885 7,776,985 0 (162,751)	Note F				P.323, L.181, Col.(b) P.323, L.184, Col.(b) P.323, L.187, Col.(b) P.323, L.182, Col.(b) P.323, L.186, Col.(b) P.323, L.188, Col.(b) P.323, L.190, Col.(b)
10.	Total		Ls. 3 thru 9	78,248,772	Note A	42,081,238	28,711,702	13,369,536	
11.	MISCELLANEOUS GENERAL EXPENSES	930	Workpapers 10-a	8,891,510	Note A & D	4,781,746	3,262,548	1,519,198	P.323, L.192, Col.(b) [Note A]
12.	ADM. EXPENSE TRANSFER - CR.	922	Workpapers 10-a	(5,882,761)	Note B	(3,163,677)	(2,158,552)	(1,005,125)	P.323, L.183, Col.(b)
13.	PROPERTY INSURANCE	924	Workpapers 10-a	3,238,061	Note E	1,618,151	1,604,153	13,998	P.323, L.185, Col.(b)
14.	REGULATORY COMM. EXPENSES	928	Workpapers 10-a	4,280,043	Note C	1,494,528	1,494,528	0	P.323, L.189, Col.(b)
15.	RENTS	931	Workpapers 10-a	1,618,168	Note B	870,231	593,752	276,479	P.323, L.193, Col.(b)
16.	MAINTENANCE OF GENERAL PLANT	935	Workpapers 10-a	12,016,949	Note B	6,462,569	4,409,361	2,053,208	P.323, L.196, Col.(b)
17.	TOTAL A & G EXPENSE		L.10 thru 16	102,410,742		54,144,785	37,917,491	16,227,295	

Note A: % from Note B, P.7

Note B: General Plant % from P.7, Col.(3), L.26

Note C: Workpapers WP -- 11 Excluding all items not related to wholesale service and also excludes FERC assessment of annual charges.

Note D: Excludes general advertising and company dues and memberships.

Note E: % Plant from P.6, L.7.

Note F: PBOP expense is fixed at \$6,222,780. This amount cannot be changed absent a Section 205/206 filing with the Commission.

Note E: P.13a, L.5,Col.(2)

		Reference	Total Company Capitalization \$ (1)	Weighted Cost Ratios % (2)	Reference	Cost of Capital % (3)	Weighted Cost of Capital (2 x 3) (4)
1.	Long Term Debt	Note A	4,067,860,259	53.12%	Note D	4.68%	2.49%
2.	Preferred Stock	Note B	0	0.00%	Note E	0.00%	0.00%
3.	Common Stock	Note C	3,590,140,794	46.88%	Note F	10.40%	4.88%
4.	Total	Ln. 1+L.2+L.3	7,658,001,053	100.00%			7.36%
Note A:	P.12, L.5, Col.(1)						
Note B:	P.13a, L.4, Col.(2)						
Note C:	P.13b, L.5,Col.(2)						
Note D:	P.12, L.16 Col. (2)						

Note F: Return on equity cannot be changed absent a Section 205/206 filing with the Commission.

			Debt	Interest & Cost
		Reference	Balance	Booked
			(1)	(2)
	12 Months Ending 12/31/2011 (Actual)			
1.	Bonds (Acc 221)	FF1, 112.18.c.	322,118,952	
2.	Less: Reacquired Bonds (Acc 222)	FF1, 112.19.c.	0	
3.	Advances from Assoc Companies (Acc 223)	FF1, 112.20.c.	0	
4.	Other Long Term Debt (Acc 224)	FF1, 112.21.c.	3,745,741,307	
5.	Total Long Term Debt Balance		4,067,860,259	
	Costs and Expenses (actual)			
6.	Interest Expense (Acc 427)	FF1, 117.62.c.	Note A	183,241,458
7.	Amortization Debt Discount and Expense (Acc 428)	FF1, 117.63.c.		2,982,641
8.	Amortization Loss on Reacquired Debt (Acc 428.1)	FF1, 117.64.c.		4,269,063
9.	Less: Amortiz Premium on Reacquired Debt (Acc 429)	FF1, 117.65.c.		0
10.	Less: Amortiz Gain on Reacquired Debt (Acc 429.1)	FF1, 117.66.c.		0
11.	Interest on LTD Assoc Companies (portion Acc 430)	Workpapers13, L.7	Note A	0
12.	Sub-total Costs and Expense			190,493,162
13.	Less: Total Hedge (Gain) / Loss	P. 12a, L. 11, Col. (6)		(1,128,890)
14.	Plus: Allowed Hedge Recovery	P. 12a, L. 15, Col. (6)		(1,128,890)
15.	Total LTD Cost Amount	L. 12 - L. 13 + L. 14		190,493,162
16.	Embedded Cost of Long Term Debt = L.15, Col.(2) / L.5, Col.(1)			4.68%
Note A:	Reconciliation of Interest Expense to FF1, pg. 257, Ln. 33 Col(i)			
_n. 6	Interest Expense (Acc 427)	183,241,458		
_n. 11	Interest on LTD Assoc Companies (portion Acc 430) FF1, pg. 257, Ln. 33 Col(i)	183,241,458		
	111, pg. 201, Lit. 33 Col(i)	103,241,430		

		(1)	(2)	(3)	(4)	(5)	(6)
		<b>-</b>		Net Includable			
	HEDGE AMT BY ISSUANCE	Total Hedge	Excludable	Hedge Amount	Unamortized	Amortization	
	FERC Form 1, p. 256-257 (i)	(Gain) / Loss	Amounts (Note A)	Subject to Limit	Balance	Beginning	Ending
1.	Senior Unsecured Notes - Series H	37,068		37,068	605.544	May-03	May-33
2.	Senior Unsecured Notes - Series N	(194,198)		(194,198)	(3,738,320)	Apr-06	Apr-36
3.	Senior Unsecured Notes - Series Q	159,672		159,672	3,386,355	Mar-08	Apr-38
3. 4.	Senior Unsecured Notes - Series S	139,072		139,072	(0)	May-10	May-15
5.	Senior Unsecured Notes - Series T	(1,131,432)		(1,131,432)	(4,777,160)	Mar-11	Mar-21
6.	Sellior Offsecured Notes - Selles 1	(1,131,432)		(1,131,432)	(4,777,100)	Wai-11	IVICI-21
7.							
8.			_				
9.				_			
Э.				_			
10.	Total Hedge Amortization	(1,128,890)	- '	(1,128,890)			
		D : .: (LTD					
	Limit on Hedging (G)/L on Interest Rate		_				// /
11.	Hedge (Gain) / Loss prior to Application	,		l			(1,128,890)
40	Enter a hedge Gain as a negative v	alue and a hedge			`	7 050 004 050	
12.	Total Capitalization			Page 11, L.4, col.(1	)	7,658,001,053	0.0005
13.	5 basis point Limit on (G)/L Recovery					-	0.0005
14.	Amount of (G)/L Recovery Limit			L. 12 * L. 13		L	(3,829,001)
15.	Hedge (Gain) / Loss Recovery (Lesser	of Line 11 or Line 1	4)				(1,128,890)
			''				( . , . = 5,000)

Note A: Annual amortization of net gains or net loss on interest rate derivative hedges on long term debt shall not cause the composite after-tax weighted average cost of captial to increase/decrease by more than 5 basis points. Hedge gains/losses shall be amortized over the life of the related debt issuance. The unamortized balance of the g/l shall remain in Acc 219 Other Comprehensive Income and shall not flow through the rate calculation. Hedge-related ADIT shall not flow through rate base. Amounts related to the ineffective portion of pre-issuance hedges, cash settlements of fair value hedges issued on Long Term Debt, post-issuance cash flow hedges, and cash flow hedges of variable rate debt issuances are not recoverable in this calculation and are to be recorded above.

To be subtracted or added to actual Interest Expenses on Page 12, Line 14

	RRED STOCK ths Ending 12/31/2016 (actuals) for 2017			Appendix 2 Page 13a
			(1) Source	(2) Balances
1.	Preferred Stock Dividends		FF1, P.118, L.29	0
2.	Preferred Stock Outstanding	Note A & B	FF1, P.251, L. 9 (f)	0
3.	Plus: Premium on Preferred Stock	Note A	FF1, P. 112, L.6	0
4.	Total Preferred Stock		L.2 + L.3	0
5.	Average Cost Rate		L.1 / L.4	0.00%

Note A: Workpaper -- WP-12b.

Note B: Preferred stock outstanding excludes pledged and Reacquired (Treasury) preferred stock.

	DN EQUITY hs Ending 12/31/2016 (actuals) for 2017	(1) Source	Appendix 2 Page 13b (2) Balances	
1.	Total Proprietary Capital	WP-12a, L.1, Col. a	3,582,763,278	
	Less:			
2.	Preferred Stock (Acc 204, pfd portion of Acc 207-213)	WP-12a, L.1, Col.b+c+d	0	
3.	Unappropriated Undistributed Subsidiary Earnings (Acc 216.1)	WP-12a, L.1, Col.e	1,758,641	
4.	Accumulated Comprehensive Other Income (Acc 219)	WP-12a, L.1, Col. F	(9,136,157)	
5.	Total Balance of Common Equity	L.1-L.2-L.3-L.4	3,590,140,794	

### ANNUAL FIXED COSTS PRODUCTION O & M EXPENSE EXCLUDING FUEL USED IN ELECTRIC GENERATION 12 Months Ending 12/31/2016 (actuals) for 2017

	Account No.	Total Company (1)	(Demand) Fixed (2)	(Energy) Variable (3)	FERC Form 1 Reference
Coal Handling     Lignite Handling	501.xx 501.xx	21,320,605 0			P.320, L.5, Col.(b) [Note D] P.320, L.5, Col.(b) [Note D]
Sale of Fly Ash (Revenue & Expense)	501.xx	(147,959)			P.320, L.5, Col.(b) [Note D]
<ol> <li>Rents</li> <li>Hydro O &amp; M Expenses</li> <li>Other Production Expenses</li> <li>System Control of Load Dispatching</li> <li>Other Steam Expenses</li> <li>Combustion Turbine</li> <li>Nuclear Power Expense-Other</li> <li>Purchased Power</li> </ol>	507 535-545 557 Note C Note A Note A Note A	0 8,409,525 14,728,855 219,754,102 0 0 358,217,720	8,409,525 14,728,855 136,438,145 46,028,823	83,315,957 0 312,188,897	Note E Note E P.321, L.78, Col.(b) P.321, L.77, L. 88, L. 92, P. 322, L. 121, Col.(b) P.321, L.76, Col.(b)
12. Total Production Expense Excluding Fuel Used In Electric Generation	Sum L.1-L. 11	622,282,848	205,605,348	416,677,500	
<ul><li>13. A &amp; G Expense P.10, L.17</li><li>14. Generator Step Up related O&amp;M</li></ul>	Note B	54,144,785 294,674	37,917,491 294,674	16,227,295 0	
15. Total O & M		676,722,308	243,817,513	432,904,795	

NOTE A: Amounts recorded in O&M Expense Accounts classified into Fixed and Variable Components in accordance with P.15 and WP-14

NOTE B: FF1, P.321, L.93 & L.107 (ACCTS. 562 & 570) times GSU Investment to Account 353 ratio (See P.3, L.9)

NOTE C: Pursuant to FERC Order 668, expenses were booked in Account 556 are now being recorded in the following accounts: 561.4, 561.8 and 575.7

NOTE D: Subaccount details of FF1 Accounts from Company's books and records.

Reconciliation of System Control of Load Dispatching	
System Control and Load Dispatching	2,016,345
Scheduling, System Control	6,007,177
Reliability, Planning and Standards Dev.	1,550,870
Market Facilitation, Monitoring and Compliance	5,154,463
Ln. 7, Pg. 14	14,728,855

NOTE E: Amounts included in Line 8.

Line				
		FERC Account	Energy	Demand
No.	Description	No.	Related	Related
1	POWER PRODUCTION EXPENSES			
2	Steam Power Generation			
3	Operation supervision and engineering	500	-	XX
4	Fuel	501	XX	-
5	Steam expenses	502	-	XX
6	Steam from other sources	503	XX	-
7	Steam transferred-Cr.	504	XX	-
8	Electric expenses	505	-	xx
9	Miscellaneous steam power expenses	506	-	XX
10	Rents	507	_	XX
11	Allowances	509	xx	-
12	Maintenance supervision and engineering	510	XX	_
13	Maintenance of structures	511	-	XX
14	Maintenance of structures  Maintenance of boiler plant	512	XX	-
15	Maintenance of electric plant	513	XX	_
16	•	514	^^	-
	Maintenance of miscellaneous steam plant	314	-	XX
17	Total steam power generation expenses			
18	Nuclear Power			
19	Operation supervision and engineering	517		XX
20	Coolants and Water	519		XX
21	Steam Expenses	520		XX
22	Steam from other sources	521		XX
23	Less: ; Steam Transferred	522		XX
24	Electric Expenses	523		XX
25	Miscellaneous Nuclear Power Expense	524		XX
26	Rents	525		XX
27	Maintenance supervision and engineering	528	XX	
28	Maintenance of structures	529		XX
29	Maintenance of Reactor Plant Equip	530	XX	
30	Maintenance of electric plant	531	XX	
31	Maintenance of Misc Nuclear Plant	532	XX	
32	Total power production expenses Nuclear			
33	Hydraulic Power Generation			
34	Operation supervision and engineering	535	_	XX
35	Water for power	536	_	XX
36	Hydraulic expenses	537	-	
	•		-	XX
37	Electric expenses	538	-	XX
38	Misc. hydraulic power generation expenses	539	-	XX
39	Rents	540	-	XX
40	Maintenance supervision and engineering	541	-	XX
41	Maintenance of structures	542	-	XX
42	Maintenance of reservoirs, dams and waterways	543	-	XX
43	Maintenance of electric plant	544	XX	-
44	Maintenance of miscellaneous hydraulic plant	545	-	XX
45	Total hydraulic power generation expenses			
46	Other Power Generation			
47	Operation supervision and engineering	546	-	xx
48	Fuel	547	xx	-
49	Generation expenses	548	-	XX
50	Miscellaneous other power generation expenses	549	-	xx
51	Rents	550	-	xx
52	Maintenance supervision and engineering	551	-	xx
53	Maintenance of structures	552	-	XX
54	Maintenance of generation and electric plant	553	-	XX
55	Maintenance of misc. other power generation plant	554	_	XX
50		004		λλ.

### CLASSIFICATION OF FIXED AND VARIABLE PRODUCTION EXPENSES

Appendix 2 Page 15 2 of 2

Line				
	Description	FERC Account	Energy	Demand
No.	POWER PRODUCTION EXPENSES	No.	Related	Related
56	Total other power generation expenses			
57	Other Power Supply Expenses			
58	Purchased power	555	XX	XX
59	System control and load dispatching	556	-	XX
60	Other expenses	557	-	XX
61	Station equipment operation expense (Note A)	562	-	XX
62	Station equipment maintenance expense (Note A)	570	-	XX

Note A: Restricted to expenses related to Generator Step-up Transformers and Other Generator related expenses. See Note D, Page 6

		Depreciation		
		Expense	Demand	Energy
	PRODUCTION PLANT	(1)	(2)	(3)
	Depreciation and Amortization Expense			
1.	Steam	169,806,820	169,806,820	0
2.	Nuclear	0	0	0
3.	Hydro Conventional	3,475,632	3,475,632	0
4.	Hydro Pump Storage	2,644,153	2,644,153	0
5.	Int. Comb.	0	0	0
6.	Other Production	14,779,598	14,779,598	0
7.	Generator Step Up Related Depreciation (Note A)	982,174	982,174	0
8.	Production Related General & Intangible Plant (Note B)	9,933,688	6,777,678	3,156,010
9.	Total Production	201,622,066	198,466,056	3,156,010

Note: Lines 1 through 6 will be Depreciation Expense reported on P.336 of the FF1 excluding the amortization of acquisition adjustments - Workpapers WP -- 6d.

Line 8 will be total General & Intangible Plant (from P.336 of the FF1, adjusted for amortization adjustments) times ratio of Production Related General Plant to total General Plant computed on P.7, L.26, Col.(3) Depreciation expense excludes amounts associated with ARO.

Note A: Line 7, see P.3, L.5

Note B:			
а	Production Related General & Intangible Plant		
b	General Plant	WP 6d	4,417,111
С	Intangible Plant	WP 6d	14,054,278
d	Total General & Intangible Plant	Ln. b+ Ln. c	18,471,389
е	Production Demand Labor Allocator	Pg. 7, Ln. 26	36.69%
f	Production Demand Related General & Intangible	Ln. d x Ln. e	6,777,678
g	Production Energy Labor Allocator Pg. 7, Ln. 28	Pg. 7, Ln. 26	17.09%
h	Production Energy Related General & Intangible	Ln. d x Ln. g	3,156,010
i	Total Production Related General & Intangible Plant	Ln. f + Ln. h	9,933,688

		SYST	EM		PRODUCTION
		REFERENCE	AMOUNT	%	Amount
			(1)	(2)	(3)
	PRODUCTION RELATED TAXES OTHER THAN I	NCOME			
1	Labor Related	Note A	8,400,592	Note B	4,517,736
2	Property Related	Note A	63,547,826	Note C	31,756,654
3	Other	Note A	15,832,348	Note C	7,911,874
4	Production	Note A	22,061,084		22,061,084
5	Gross Receipts / Distribution Related	Note A	13,395,252	Note D	0
6	TOTAL TAXES OTHER THAN INCOME TAXES	Sum L.1 : L.5	123,237,102		66,247,348
Note A:	Workpapers WP8c.				
Note B:	Total (Col. (1), L.1) allocated on the basis of wages Electric O & M Expenses (excl. A & G), P.354, Col. shown on Worksheets WP-9a and WP-9b.				

Amount

156,304,395 84,058,602 100.00%

53.78%

Note C: Allocated on the basis of Gross Plant Investment from

Note D: Not allocated to wholesale

Page 6, Ln.7

(1) Total W & S (excl. A & G)(2) Production W & S

PRODUCTION-RELATED INC	OME TAX
12 Months Ending 12/31/2016	(actuals) for 2017

Appendix 2 Page 18

		Reference	Amount (1)	Demand (2)	Energy (3)
1.	Return on Rate Base	P.5, L.18	235,680,486	227,022,815	8,657,671
2.	Effective Income Tax Rate	P.19, L.2	39.59%	39.59%	39.59%
3.	Income Tax Calculated	L.1 x L.2	93,308,730	89,881,055	3,427,676
4.	ITC Adjustment	P.19, L.13	0	0	0
5.	Income Tax	L.3 + L.4	93,308,730	89,881,055	3,427,676

Note A: Classification based on Production Plant classification of P.19, L.20 and L.21.

Line No.		Source (1)	Rates & Amounts (2)
1.		(1)	37.42%
2.	EIT=(T/(1-T)) * (1-(WCLTD/WACC)) =		39.59%
3.	where WCLTD from pg. 11, L.1, Col.(4) and WAC p. 11, L.4, Col.(4) and FIT, SIT & P as shown belo		
4.	GRCF=1 / (1 - T)		1.5979
5.	Federal Income Tax Rate	FIT	35.00%
6.	State Income Tax Rate (Composite)	SIT	3.72%
7.	Percent of FIT deductible for state purposes	P Note A	0.00%
8.	Weighted Cost of Long Term Debt	WCLTD	2.49%
9.	Weighted Average Cost of Capital	WACC	7.36%
10.	Amortized Investment Tax Credit (enter negative)	FF1, P.114, L.19, Col.c	0.00%
11.	Gross Plant Allocation Factor	L.19	49.97%
12.	Production Plant Related ITC Amortization	L. 10 X L. 11	0.00%
13.	ITC Adjustment	L.12 x L.4	0.00%
14.	Cross Blant Allegator		Total
14. 15.	Gross Plant Allocator Gross Plant	P.6, L.4, Col.1	12,885,432,977
16.	Production Plant Gross	P.6, L.4, Col.1 P.6, L.5, Col.2	6,439,216,878
17.	Demand Related Production Plant	P.6, L.5, Col.2 P.6, L.5, Col.3	6,383,511,764
18.	Energy Related Production Plant	P.6, L.5, Col.4	55,705,114
10.	Lifetgy Neialeu Floudclion Flant	r.u, L.u, UUI.4	33,703,114
19.	Production Plant Gross Plant Allocator	L.16 / L.15	49.97%
20.	Production Plant - Demand Related	L.17 / L.16	99.13%
21.	Production Plant - Energy Related	L.18 / L.16	0.87%

Note A: Percent deductible for state purposes provided from Company's books and records.

## Appalachian Power Company Formula Rate Template - Capacity Rate DEPRECIATION RATES 12 Months Ending 12/31/2015 (actuals)

Note: APCo will not change the depreciation or amortization rates shown on this page of the template absent a Section 205 or Section 206 filing.

#### STEAM PRODUCTION PLANT

#### Mountaineer Plant

311.0	Structures and Improvements	2.44%
312.0	Boiler Plant Equipment	2.75%
312.0	Boiler Plant Equipment - SCR Catalyst	6.99%
314.0	Turbogenerator Units	2.28%
315.0	Accessory Electric Equipment	1.80%
316.0	Misc. Power Plant Equipment	2.21%

#### Kanawha River Plant

311.0	Structures and Improvements	Retired
312.0	Boiler Plant Equipment	Retired
314.0	Turbogenerator Units	Retired
315.0	Accessory Electric Equipment	Retired
316.0	Misc. Power Plant Equipment	Retired

#### Amos Plant - Units 1 & 2

311.0	Structures and Improvements	2.03%
312.0	Boiler Plant Equipment	3.29%
312.0	Boiler Plant Equipment - SCR Catalyst	6.01%
314.0	Turbogenerator Units	3.32%
315.0	Accessory Electric Equipment	2.79%
316.0	Misc. Power Plant Equipment	3.10%

#### Amos Plant - Unit 3

Structures and Improvements	2.54%
Boiler Plant Equipment	3.56%
Boiler Plant Equipment - SCR Catalyst	7.63%
Turbogenerator Units	3.12%
Accessory Electric Equipment	2.17%
Misc. Power Plant Equipment	2.68%
	Structures and Improvements Boiler Plant Equipment Boiler Plant Equipment - SCR Catalyst Turbogenerator Units Accessory Electric Equipment Misc. Power Plant Equipment

## Appalachian Power Company Formula Rate Template - Capacity Rate DEPRECIATION RATES 12 Months Ending 12/31/2015 (actuals)

#### Sporn Plant

311.0 Structures and Improvements	Retired
312.0 Boiler Plant Equipment	Retired
314.0 Turbogenerator Units	Retired
315.0 Accessory Electric Equipment	Retired
316.0 Misc. Power Plant Equipment	Retired

#### Clinch River Plant

311.0	Structures and Improvements	3.86%
312.0	Boiler Plant Equipment	4.73%
314.0	Turbogenerator Units	3.68%
315.0	Accessory Electric Equipment	4.37%
316.0	Misc. Power Plant Equipment	7.11%

#### Glen Lyn Plant #5

Structures and Improvements	Retired
Boiler Plant Equipment	Retired
Turbogenerator Units	Retired
Accessory Electric Equipment	Retired
Misc. Power Plant Equipment	Retired
	Structures and Improvements Boiler Plant Equipment Turbogenerator Units Accessory Electric Equipment Misc. Power Plant Equipment

### Glen Lyn Plant #6 and Common

311.0	Structures and Improvements	Retired
312.0	Boiler Plant Equipment	Retired
314.0	Turbogenerator Units	Retired
315.0	Accessory Electric Equipment	Retired
316.0	Misc. Power Plant Equipment	Retired

#### Putnam Coal Terminal

311.0	Structures and Improvements	Retired
312.0	Boiler Plant Equipment	Retired
315.0	Accessory Electric Equipment	Retired
316.0	Misc. Power Plant Equipment	Retired

#### Appendix 2 Page 20 3 of 6

# Appalachian Power Company Formula Rate Template - Capacity Rate DEPRECIATION RATES 12 Months Ending 12/31/2015 (actuals)

#### Central Plant Maintenance

	316.0	Misc. Power Plant Equipment	2.51%
Central Machine S	hop		
	316.0	Misc. Power Plant Equipment	2.70%
Little Broad Run			
	312.0	Structures and Improvements Boiler Plant Equipment Accessory Electric Equipment	3.34% 3.24% 3.41%
HYDRAULIC PRO	DUCTIO	ON PLANT	
Claytor	332.0 333.0 334.0 335.0	Structures and Improvements Reservoirs, Dams, Waterways Waterwheels, Generators, Turbines Accessory Plant Equipment Misc Power Plant Equip Roads, Railroads, Bridges	1.65% 1.10% 1.08% 2.16% 2.61% 0.71%
Byllesby	332.0 333.0 334.0	Structures and Improvements Reservoirs, Dams, Waterways Waterwheels, Generators, Turbines Accessory Plant Equipment Misc Power Plant Equip	5.54% 6.82% 5.93% 4.14% 6.73%
Buck	332.0 333.0 334.0 335.0	Structures and Improvements Reservoirs, Dams, Waterways Waterwheels, Generators, Turbines Accessory Plant Equipment Misc Power Plant Equip Roads, Railroads, Bridges	4.49% 4.94% 4.10% 4.60% 5.84% 4.72%

#### Appendix 2 Page 20 4 of 6

# Appalachian Power Company Formula Rate Template - Capacity Rate DEPRECIATION RATES 12 Months Ending 12/31/2015 (actuals)

Niagara	<ul> <li>331.0 Structures and Improvements</li> <li>332.0 Reservoirs, Dams, Waterways</li> <li>333.0 Waterwheels, Generators, Turbines</li> <li>334.0 Accessory Plant Equipment</li> <li>335.0 Misc Power Plant Equip</li> </ul>	2.58% 5.09% 4.00% 4.89% 4.83%
Reusens	<ul> <li>331.0 Structures and Improvements</li> <li>332.0 Reservoirs, Dams, Waterways</li> <li>333.0 Waterwheels, Generators, Turbines</li> <li>334.0 Accessory Plant Equipment</li> <li>335.0 Misc Power Plant Equip</li> </ul>	5.66% 5.77% 6.04% 5.04% 6.61%
Leesville	<ul> <li>331.0 Structures and Improvements</li> <li>332.0 Reservoirs, Dams, Waterways</li> <li>333.0 Waterwheels, Generators, Turbines</li> <li>334.0 Accessory Plant Equipment</li> <li>335.0 Misc Power Plant Equip</li> <li>336.0 Roads, Railroads, Bridges</li> </ul>	1.04% 1.66% 1.33% 2.09% 2.12% 0.93%
London	<ul> <li>331.0 Structures and Improvements</li> <li>332.0 Reservoirs, Dams, Waterways</li> <li>333.0 Waterwheels, Generators, Turbines</li> <li>334.0 Accessory Plant Equipment</li> <li>335.0 Misc Power Plant Equip</li> <li>336.0 Roads, Railroads, Bridges</li> </ul>	2.61% 2.40% 2.72% 2.59% 2.80% 1.68%
Marmet	<ul> <li>331.0 Structures and Improvements</li> <li>332.0 Reservoirs, Dams, Waterways</li> <li>333.0 Waterwheels, Generators, Turbines</li> <li>334.0 Accessory Plant Equipment</li> <li>335.0 Misc Power Plant Equip</li> <li>336.0 Roads, Railroads, Bridges</li> </ul>	2.08% 2.73% 2.84% 2.62% 2.73% 1.71%

#### Appendix 2 Page 20 5 of 6

# Appalachian Power Company Formula Rate Template - Capacity Rate DEPRECIATION RATES 12 Months Ending 12/31/2015 (actuals)

Winfield	<ul> <li>331.0 Structures and Improvements</li> <li>332.0 Reservoirs, Dams, Waterways</li> <li>333.0 Waterwheels, Generators, Turbines</li> <li>334.0 Accessory Plant Equipment</li> <li>335.0 Misc Power Plant Equip</li> <li>336.0 Roads, Railroads, Bridges</li> </ul>	2.32% 2.14% 2.46% 2.40% 2.26% 2.44%
Smith Mounta	<ul> <li>331.0 Structures and Improvements</li> <li>332.0 Reservoirs, Dams, Waterways</li> <li>333.0 Waterwheels, Generators, Turbines</li> <li>334.0 Accessory Plant Equipment</li> <li>335.0 Misc Power Plant Equip</li> <li>336.0 Roads, Railroads, Bridges</li> </ul>	1.31% 1.22% 2.24% 2.45% 2.67% 1.09%
OTHER PRODUC	CTION PLANT	
Ceredo	<ul> <li>341.0 Structures and Improvements</li> <li>344.0 Generators</li> <li>345.0 Accessory Electrical Equip.</li> <li>346.0 Misc Power Plant Equipment</li> </ul>	1.33% 1.44% 1.35% 2.84%
Dresden	<ul> <li>341.0 Structures and Improvements</li> <li>342.0 Fuel Holders, Producers, and Accessories</li> <li>344.0 Generators</li> <li>345.0 Accessory Electrical Equip.</li> <li>346.0 Misc Power Plant Equipment</li> </ul>	2.87% 2.88% 2.87% 2.89% 3.49%

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# Appalachian Power Company Formula Rate Template - Capacity Rate DEPRECIATION RATES 12 Months Ending 12/31/2015 (actuals)

#### **GENERAL PLANT**

390.0	Structures and Improvements	1.51%
391.0	Office Furniture and Fixtures	2.89%
392.0	Transportation Equipment	1.82%
393.0	Stores Equipment	1.76%
394.0	Tools, Shop & Garage Equip.	2.36%
395.0	Laboratory Equipment	2.65%
396.0	Power Operated Equipment	1.91%
397.0	Communications Equipment	4.06%
398.0	Misc Equipment	2.62%

#### INTANGIBLE PLANT

301.0	Organization	0.00%
302.0	Franchises & Consents	End of Life
303.0	Misc Intangible Plant	20.00%