

Virginia State Corporation Commission

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Case Number (if already assigned) PUR-2019-00122

Case Name (if known) Appalachian Power Company
For approval of a rate adjustment clause, the EE-RAC,
pursuant to § 56-585.1 A 5 c of the Code of Virginia
and for approval of new energy efficiency programs

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An AEP Company

BOUNLESS ENERGY®

American Electric Power
1051 E Cary Street, Suite 1100
Richmond, Virginia 23219
AEP.com

June 17, 2020

VIA ELECTRONIC DELIVERY

Joel H. Peck, Clerk
State Corporation Commission
Document Control Center
1300 East Main Street, First Floor
Richmond, VA 23218

**Re: PUR-2019-00122 –Appalachian Power Company
For approval of a rate adjustment clause, the EE-RAC, pursuant to § 56-585.1 A 5 c of
the Code of Virginia and for approval of new energy efficiency programs**

Dear Mr. Peck:

In accordance with the Final Order in Case No. PUR-2019-00122, the Company is submitting revised tariff sheets and supporting workpapers to recover a rate year revenue requirement of \$9,695,615. Further, the Company requests that the Commission approve a revision to its tariff to exclude large general service customers who (1) are currently exempt from the EE-RAC Rider and (2) have a verifiable history of having used more than one megawatt of demand, until the Commission can promulgate rules governing exemptions from the EE-RAC, as set out in Section 56-585.1, which are effective July 1, 2020.

Kindly provide us with a stamped copy of the clean tariff page.

Please contact me at (804) 698-5514 if you have any questions.

Sincerely,

Jennifer B. Sebastian

Jennifer B. Sebastian
Regulatory Analysis and Case Manager

Enclosures

cc: Raymond L. Doggett, Jr., Esq.
Frederick D. Ochsenhirt, Esq.
Madhu S. Mangalam
Greg Abbott
John Stevens
Richard W. Michaux, Jr.
Brian S. Pratt
Andrew Boehlein

VA. S.C.C. TARIFF NO. 25

RIDER E.E. – R.A.C.
(Energy Efficiency Rate Adjustment Clause Rider)**AVAILABILITY OF SERVICE**

Effective with service rendered on or after July 1, 2020~~19~~, the rates in this Energy Efficiency Rate Adjustment (EE-RAC) Rider will be applied to all customer bills, rendered under the applicable Standard Schedules or Special Contracts, unless the customer is exempt under Va. Code § 56.5-85.1-A-5(e) has a verifiable history of having used one megawatt demand from a single site and was determined to be exempt from this Rider prior to July 1, 2020.

The EE-RAC shall be calculated by multiplying the kWh's of energy by the rates below:

Schedule	Energy Rate per kWh
Residential (011,012,013,014,015,020,051,054)	\$0.0008050
Residential – TOD (030, 031, 032)	On-Peak-\$0.0014585 Off-Peak- \$0.000813
SWS (222)	\$0.0004781
SGS (213,231,233,234,281)	\$0.0004981
SGS – LMTOD (225, 226)	On-Peak-\$0.0016002 Off-Peak- \$0.0001509
MGS - Secondary (215)	\$0.0004483
MGS - Primary (217)	\$0.0007942
MGS - Subtransmission (236)	\$0.0007942
MGS - Transmission (239)	\$0.0007744
GS – Secondary (261)	Block 1 \$0.0008344 Block 2 \$0.0008254
GS – Primary (263)	Block 1 \$0.0007942 Block 2 \$0.0007849
GS – Subtransmission (265)	Block 1 \$0.0007942 Block 2 \$0.0007848
GS – Transmission (267)	Block 1 \$0.0007744 Block 2 \$0.0007648
GS-TOD - Secondary (229,230)	On-Peak-\$0.00137069 Off-Peak- \$0.000123
GS-TOD - Primary (227)	On-Peak-\$0.00130966 Off-Peak- \$0.000121
LGS-TOD - Secondary (337)	On-Peak-\$0.00137292 Off-Peak- \$0.0001226
LGS-TOD - Primary (339)	On-Peak-\$0.00130279 Off-Peak-\$0.0001125
LGS - Secondary (378,380)	\$0.0008254
LGS - Primary (379,381,385)	\$0.0007849
LGS - Subtransmission (382)	\$0.0007848
LGS - Transmission (386)	\$0.0007648
LPS - Secondary (302)	\$0.0007950
LPS - Primary (306)	\$0.0007548
LPS - Subtransmission (308,309)	\$0.0007548
LPS - Transmission (310)	\$0.0007447
OL (093-143)	\$0.000000

This EE-RAC rider shall remain in effect until such time as modified by the Commission.



VA. S.C.C. TARIFF NO. 25

RIDER E.E. – R.A.C.
(Energy Efficiency Rate Adjustment Clause Rider)
AVAILABILITY OF SERVICE

Effective with service rendered on or after July 1, 2020, the rates in this Energy Efficiency Rate Adjustment (EE-RAC) Rider will be applied to all customer bills, rendered under the applicable Standard Schedules or Special Contracts, unless the customer has a verifiable history of having used one megawatt demand from a single site and was determined to be exempt from this Rider prior to July 1, 2020.

The EE-RAC shall be calculated by multiplying the kWh's of energy by the rates below:

Schedule	Energy Rate per kWh
Residential (011,012,013,014,015,020,051,054)	\$0.00080
Residential – TOD (030, 031, 032)	On-Peak-\$0.00185 Off-Peak- \$0.00013
SWS (222)	\$0.00081
SGS (213,231,233,234,281)	\$0.00081
SGS – LMTOD (225, 226)	On-Peak-\$0.00160 Off-Peak- \$0.00015
MGS - Secondary (215)	\$0.00083
MGS - Primary (217)	\$0.00079
MGS - Subtransmission (236)	\$0.00079
MGS - Transmission (239)	\$0.00077
GS – Secondary (261)	Block 1 \$0.00083 Block 2 \$0.00082
GS – Primary (263)	Block 1 \$0.00079 Block 2 \$0.00078
GS – Subtransmission (265)	Block 1 \$0.00079 Block 2 \$0.00078
GS – Transmission (267)	Block 1 \$0.00077 Block 2 \$0.00076
GS-TOD - Secondary (229,230)	On-Peak-\$0.00137 Off-Peak- \$0.00012
GS-TOD - Primary (227)	On-Peak-\$0.00130 Off-Peak- \$0.00011
LGS-TOD - Secondary (337)	On-Peak-\$0.00137 Off-Peak- \$0.00012
LGS-TOD - Primary (339)	On-Peak-\$0.00130 Off-Peak-\$0.00011
LGS - Secondary (378,380)	\$0.00082
LGS - Primary (379,381,385)	\$0.00078
LGS - Subtransmission (382)	\$0.00078
LGS - Transmission (386)	\$0.00076
LPS - Secondary (302)	\$0.00079
LPS - Primary (306)	\$0.00075
LPS - Subtransmission (308,309)	\$0.00075
LPS - Transmission (310)	\$0.00074
OL (093-143)	\$0.00000

This EE-RAC rider shall remain in effect until such time as modified by the Commission.



RIDER O.A.D. E.E. – R.A.C.
(Energy Efficiency Rate Adjustment Clause Rider)

AVAILABILITY OF SERVICE

Effective with service rendered on or after July 1, 2020~~19~~, the rates in this Energy Efficiency Rate Adjustment (EE-RAC) Rider will be applied to all customer bills, rendered under the applicable Standard and O.A.D. Schedules or Special Contracts, unless the customer has a verifiable history of having used one megawatt demand from a single site and was determined to be exempt from this Rider prior to July 1, 2020 is exempt under Va. Code § 56-585.1 A 5(e).

The O.A.D. EE-RAC shall be calculated by multiplying the kWh's of energy by the rates below:

Schedule	Energy Rate per kWh	
Residential (820)	\$0.0008050	
SWS (890)	\$0.0008142	
SGS (830, 831, 833)	\$0.0008149	
MGS - Secondary (840)	\$0.0008344	
MGS - Primary (841)	\$0.0007942	
MGS - Subtransmission (842)	\$0.0007942	
MGS - Transmission (843)	\$0.0007741	
GS – Secondary (870)	Block 1	\$0.0008344
	Block 2	\$0.0008254
GS – Primary (871)	Block 1	\$0.0007942
	Block 2	\$0.0007849
GS – Subtransmission (872)	Block 1	\$0.0007942
	Block 2	\$0.0007848
GS – Transmission (873)	Block 1	\$0.0007741
	Block 2	\$0.0007648
LGS - Secondary (850, 855)	\$0.0008254	
LGS - Primary (851, 856)	\$0.0007849	
LGS - Subtransmission (852)	\$0.0007848	
LGS - Transmission (853)	\$0.0007648	
LPS – Secondary (860)	\$0.0007950	
LPS - Primary (861)	\$0.0007548	
LPS - Subtransmission (862)	\$0.0007548	
LPS - Transmission (863)	\$0.0007447	
OL (912-954)	\$0.00000	

This O.A.D. EE-RAC rider shall remain in effect until such time as modified by the Commission.



RIDER O.A.D. E.E. – R.A.C.
(Energy Efficiency Rate Adjustment Clause Rider)

AVAILABILITY OF SERVICE

Effective with service rendered on or after July 1, 2020, the rates in this Energy Efficiency Rate Adjustment (EE-RAC) Rider will be applied to all customer bills, rendered under the applicable Standard and O.A.D. Schedules or Special Contracts, unless the customer has a verifiable history of having used one megawatt demand from a single site and was determined to be exempt from this Rider prior to July 1, 2020.

The O.A.D. EE-RAC shall be calculated by multiplying the kWh's of energy by the rates below:

Schedule	Energy Rate per kWh	
Residential (820)		\$0.00080
SWS (890)		\$0.00081
SGS (830, 831, 833)		\$0.00081
MGS - Secondary (840)		\$0.00083
MGS - Primary (841)		\$0.00079
MGS - Subtransmission (842)		\$0.00079
MGS - Transmission (843)		\$0.00077
GS – Secondary (870)	Block 1	\$0.00083
	Block 2	\$0.00082
GS – Primary (871)	Block 1	\$0.00079
	Block 2	\$0.00078
GS – Subtransmission (872)	Block 1	\$0.00079
	Block 2	\$0.00078
GS – Transmission (873)	Block 1	\$0.00077
	Block 2	\$0.00076
LGS - Secondary (850, 855)		\$0.00082
LGS - Primary (851, 856)		\$0.00078
LGS - Subtransmission (852)		\$0.00078
LGS - Transmission (853)		\$0.00076
LPS – Secondary (860)		\$0.00079
LPS - Primary (861)		\$0.00075
LPS - Subtransmission (862)		\$0.00075
LPS - Transmission (863)		\$0.00074
OL (912-954)		\$0.00000

This O.A.D. EE-RAC rider shall remain in effect until such time as modified by the Commission.

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VA. S.C.C. TARIFF NO. 25

RIDER F.O.A.D. E.E. – R.A.C.
(FRR Open Access Distribution Service - Energy Efficiency Rate Adjustment Clause Rider)

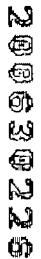
AVAILABILITY OF SERVICE

Effective with service rendered on or after July 1, 2019, the rates in this Energy Efficiency Rate Adjustment (EE-RAC) Rider will be applied to all customer bills, rendered under the applicable Standard and F.O.A.D. Schedules or Special Contracts, unless the customer has a verifiable history of having used one megawatt demand from a single site and was determined to be exempt from this Rider prior to July 1, 2020 is exempt under Va. Code § 56-585.1 A.5 (e).

The F.O.A.D. EE-RAC shall be calculated by multiplying the kWh's of energy by the rates below:

Schedule	Energy Rate per kWh	
SGS - (231F,233F,234F,213F,281F)	\$0.0008149	
MGS – Standard (215F)	\$0.0008344	
MGS – Primary (217F)	\$0.0007942	
MGS - Subtransmission (236F)	\$0.0007942	
MGS - Transmission (239F)	\$0.0007744	
GS-Secondary (261F)	Block 1 \$0.0008344	Block 2 \$0.0008254
GS-Primary(263F)	Block 1 \$0.0007942	Block 2 \$0.0007849
GS-Subtransmission (265F)	Block 1 \$0.0007942	Block 2 \$0.0007848
GS-Transmission (267F)	Block 1 \$0.0007744	Block 2 \$0.0007648
LGS – Secondary (378F,380F)	\$0.0008254	
LGS - Primary (379F,381F)	\$0.0007849	
LGS – Subtransmission (382F)	\$0.0007848	
LGS - Transmission (386F)	\$0.0007648	
LPS - Secondary (302F)	\$0.0007950	
LPS - Primary (306F)	\$0.0007548	
LPS - Subtransmission (308F) (309F)	\$0.0007548	
LPS - Transmission (310F)	\$0.0007447	

This F.O.A.D. EE-RAC rider shall remain in effect until such time as modified by the Commission.



VA. S.C.C. TARIFF NO. 25

RIDER F.O.A.D. E.E. – R.A.C.
(FRR Open Access Distribution Service - Energy Efficiency Rate Adjustment Clause Rider)

AVAILABILITY OF SERVICE

Effective with service rendered on or after July 1, 2020, the rates in this Energy Efficiency Rate Adjustment (EE-RAC) Rider will be applied to all customer bills, rendered under the applicable Standard and F.O.A.D. Schedules or Special Contracts, unless the customer has a verifiable history of having used one megawatt demand from a single site and was determined to be exempt from this Rider prior to July 1, 2020.

The F.O.A.D. EE-RAC shall be calculated by multiplying the kWh's of energy by the rates below:

Schedule	Energy Rate per kWh	
SGS - (231F,233F,234F,213F,281F)	\$0.00081	
MGS – Standard (215F)	\$0.00083	
MGS – Primary (217F)	\$0.00079	
MGS - Subtransmission (236F)	\$0.00079	
MGS - Transmission (239F)	\$0.00077	
GS-Secondary (261F)	Block 1 Block 2	\$0.00083 \$0.00082
GS-Primary(263F)	Block 1 Block 2	\$0.00079 \$0.00078
GS-Subtransmission (265F)	Block 1 Block 2	\$0.00079 \$0.00078
GS-Transmission (267F)	Block 1 Block 2	\$0.00077 \$0.00076
LGS – Secondary (378F,380F)	\$0.00082	
LGS - Primary (379F,381F)	\$0.00078	
LGS – Subtransmission (382F)	\$0.00078	
LGS - Transmission (386F)	\$0.00076	
LPS - Secondary (302F)	\$0.00079	
LPS - Primary (306F)	\$0.00075	
LPS - Subtransmission (308F) (309F)	\$0.00075	
LPS - Transmission (310F)	\$0.00074	

This F.O.A.D. EE-RAC rider shall remain in effect until such time as modified by the Commission.

APPALACHIAN POWER COMPANY - VIRGINIA
EE - RAC

Revenue Requirement

PUR-2019-00122

Projected Revenue Requirement	\$ 10,584,787
True-Up Revenue Requirement	\$ (889,172)
Rider EE-RAC Revenue Requirements	\$ 9,695,615

*Revenue to be recovered from July 1, 2020 to June 30, 2021

APPALACHIAN POWER COMPANY - VIRGINIA
EE - RAC

Derivation of Customer Class Revenue Requirements

PUR-2019-00122

<u>Line No.</u>	<u>Allocator Name</u>	<u>Allocator</u>	<u>(1) Amount</u>	<u>(2)</u>	<u>(3)</u>	<u>(3A)</u>	<u>(3B)</u>	<u>(4)</u>	<u>(4A)</u>	<u>(4B)</u>	<u>(4C)</u>	<u>(4D)</u>	<u>(5)</u>	<u>(5A)</u>	<u>(5B)</u>	<u>(5C)</u>
1	DEMAND - SIX CP	DEM	2,920,729	1,713,578	143,810	142,864	746	95,533	88,106	6,283	901	243	349,330	321,304	27,220	806
2	KWH AT GENERATOR	ENER	16,286,828,815	7,180,764,153	697,725,111	694,058,629	3,666,482	498,974,449	455,246,362	37,411,367	5,121,548	1,195,172	2,521,281,663	2,320,090,677	195,558,693	5,632,293
3	Exempt Customer Metered Energy Loss Factor		2,693,612,182	-	-	-	-	-	-	-	-	-	11,024,600	6,639,200	4,385,400	-
4	Exempt Customer KWH at Generator		-	-	-	-	-	-	-	-	-	-	12,053,511	7,400,119	4,653,392	-
5=3+4	Exempt Customer KWH at Generator		-	-	-	-	-	-	-	-	-	-	-	-	-	-
6=2-5	ENERGY (excl. Exempt Customer)		13,442,612,563	7,180,764,153	697,725,111	694,058,629	3,666,482	498,974,449	455,246,362	37,411,367	5,121,548	1,195,172	2,509,228,152	2,312,690,558	190,905,301	5,632,293
7	KWH AT GENERATOR	ENER	1.00	0.534179	0.051804	0.051631	0.000273	0.037119	0.033866	0.002783	0.000381	0.000089	0.186652	0.172042	0.014202	0.000418

APPALACHIAN POWER COMPANY - VIRGINIA
EE - RAC

APCO Exhibit No. _____
Witness: JNC
Schedule 46N
Page 3 of 18

Derivation of Customer Class Revenue Requirements

PUR-2019-00122

Line No.	Allocator Name	Allocator	(1) Amount	LARGE GENERAL SERVICE LGS	LARGE GENERAL SERVICE LGS SEC	LARGE GENERAL SERVICE LGS PRI	LARGE GENERAL SERVICE LGS SUB	LARGE POWER SERVICE LPS	LARGE POWER SERVICE LPS SEC	LARGE POWER SERVICE LPS PRI	LARGE POWER SERVICE LPS SUB	LARGE POWER SERVICE LPS TRAN	SANCTUARY WORSHIP SERVICE SWS SEC	OUTDOOR LIGHTING SERVICE OL SEC
				(6)	(6A)	(6B)	(6C)	(7)	(7A)	(7B)	(7C)	(7D)	(8)	(9)
1	DEMAND - SX CP	DEM	2,920,729											
2	KWH AT GENERATOR	ENER	16,288,828,815	7,369,612	2,450,462	4,919,150		603,556	39,875	278,637	230,459	54,585	14,109	-
3	Exempt Customer Metered KWh		2,693,612,182	-	-	-	-	5,333,490,062	336,642,148	2,419,059,788	2,022,619,396	555,168,732	47,223,565	-
4	Energy Loss Factor							2,682,587,582	19,639,200	773,055,740	1,455,388,042	434,504,600	-	-
5=3+4	Exempt Customer KWH at Generator							1.11461	1.06111	1.05704	1.03928			
6=2-5	ENERGY (excl. Exempt Customer)		13,442,612,563	7,369,612	2,450,462	4,919,150		2,832,182,542	21,890,049	820,297,176	1,538,403,376	451,571,941		-
7	KWH AT GENERATOR	ENER	1.00	0.000548	0.000182	0.000366	0.000000	0.185075	0.023415	0.118932	0.036021	0.007707	0.003513	0.000000

9 2 2 0 3 9 0 0 0 2

APPALACHIAN POWER COMPANY - V RGINIA
 EE - RAC

Derivation of Customer Class Revenue Requirements Based on Class Energy

PUR-2019-00122

Virginia Jurisdictional Allocation	RESIDENTIAL SERVICE		SMALL GENERAL SERVICE		SMALL GENERAL SERVICE		MEDIUM GENERAL SERVICE		MEDIUM GENERAL SERVICE		MEDIUM GENERAL SERVICE		GENERAL SERVICE		GENERAL SERVICE		GENERAL SERVICE		
	RS	SEC	SGS	SGS	SEC	Sgs	Pri	Mgs	Mgs	Sec	Mgs	Pri	Sub	Mgs	Trans	Gs	Sec	Gs	Pri
Line No.	\$s	Allocator	(1) Amount	(2)	(3)	(3A)	(3B)	(4)	(4A)	(4B)	(4C)	(4D)	(5)	(5A)	(5B)	(5C)			
1	9,695,615	ENER	\$ 9,695,615	\$ 5,179,196	\$ 503,241	\$ 500,597	\$ 2,644	\$ 359,890	\$ 328,351	\$ 26,983	\$ 3,694	\$ 862	\$ 1,809,806	\$ 1,668,051	\$ 137,692	4062.346083			

2020 RELEASE UNDER E.O. 14176

APPALACHIAN POWER COMPANY - V RGINIA
 EE - RAC

Derivation of Customer Class Revenue Requirements Based on Class Energy

PUR-2019-00122

Virginia Jurisdictional Allocation														
	LARGE GENERAL SERVICE		LARGE GENERAL SERVICE		LARGE GENERAL SERVICE		LARGE POWER SERVICE		LARGE POWER SERVICE		LARGE POWER SERVICE			
	LGS	LGS SEC	LGS	LGS PRI	LGS	LGS SUB	LPS	LPS SEC	LPS	LPS PRI	LPS	LPS TRAN		
Line No.	\$s	Allocator	Amount	(1)	(6)	(6A)	(6B)	(6C)	(7)	(7A)	(7B)	(7C)		
1	9,695,615	ENER	\$ 9,695,615 \$		5,315	\$ 1,767	\$ 3,548	\$ -	\$ 1,804,107	\$ 227,018	\$ 1,153,123	\$ 349,246	\$ 74,720	\$ 34,060 \$ -

922039002

APPALACHIAN POWER COMPANY - V RGINIA
 EE - RAC

Derivation of Customer Class Rates

PUR-2018-00122

(A)	(B)	(C)	(D)	(E)	(F)=(D)/(E)	
Line No.	Tariff Description	Cost	TOD Revenue Requirement	Cost Less TOD Revenue Requirement	Units @ Secondary Voltage Level	Secondary Rate
					<u>Energy - kWh</u>	<u>\$/KWH</u>
1	Residential Service	\$ 5,179,196	\$ 2,351	\$ 5,176,845	6,439,157,583	\$ 0.00080
2	Sanctuary Worship Service	\$ 34,060		\$ 34,060	42,367,792	\$ 0.00081
3	Small General Service ¹	\$ 503,241	\$ 287	\$ 502,955	625,739,350	\$ 0.00081
4	Medium General Service ²	\$ 359,890		\$ 359,890	447,657,300	\$ 0.00083
5	Large General Service	\$ 5,315		\$ 5,315	6,611,830	\$ 0.00082
6	Large Power Service ³	\$ 1,804,107		\$ 1,804,107	2,244,128,009	\$ 0.00079
7	Outdoor Lighting	\$ -		\$ -	72,805,321	\$ -
8	Total of Line(1 - 7)	\$ 7,885,810	\$ 2,638	\$ 7,883,172	9,878,577,186	
9	General Service Standard GS Target					
9a	GS Block 1 - Initial Rate	\$ 1,809,805			1,635,735,783	\$ 0.00083
9b	GS Block 2 - Initial Rate				550,810,785	\$ 0.00082

* adjusted for revenue verification

Line No.	Tariff Description	Primary Rate		Subtransmission Rate		Transmission Rate	
		\$/KWH	Energy Loss Factor	\$/KWH	Energy Loss Factor	\$/KWH	Energy Loss Factor
10	Residential Service						
11	Sanctuary Worship Service						
12	Small General Service ¹						
13	Medium General Service ²	\$ 0.00083	0.9520	\$ 0.00079	0.9483	\$ 0.00079	0.9324
14	Large General Service	\$ 0.00082	0.9520	\$ 0.00078	0.9483	\$ 0.00078	0.9324
15	Large Power Service ³	\$ 0.00079	0.9520	\$ 0.00075	0.9483	\$ 0.00075	0.9324
16	Outdoor Lighting						
17							
18	General Service - Block 1	\$ 0.00083	0.9520	\$ 0.00079	0.9483	\$ 0.00079	0.9324
19	General Service - Block 2	\$ 0.00082	0.9520	\$ 0.00078	0.9483	\$ 0.00078	0.9324

Notes

- 1) Company does not distinguish between secondary and primary for SGS class. Used billed level energy. SGS are not loss adjusted due to each customer being billed at the secondary rate
- 2) Adjustments to Class Allocations of Demand and Energy Related Costs. Includes GS Block 1. Energy excludes GS Block 2.
- 3) kWh adjusted to exclude Exempt customers

2024 RELEASE UNDER E.O. 14176

Revenue Proof

PUR-2019-00122

200933

Line No.	Tariff Code	Tariff Description	kWh	Proposed		
				Energy Rate-\$/kWh	Total Revenue	Class Total
1	11 RS-LMW-H		21,068,550	0.00080	16,679	5,178,093
2	15 RS		8,391,120,052	0.00080	5,112,988	(25,518)
3	20 RS EXP		26,788,807	0.00080	21,415	
4	30 RS-TOD - On peak		1,122,003	0.00185	2,078	
5	30 RS-TOD - Off peak		2,121,033	0.00113	270	
6	51 RS-LMW-H		170,174	0.00080	138	
7						
8	004, 012, 0500 L, 100 W		16,687,948	0.00000	0	0
9	065, 013, 23000 L, 400 W		11,583,420	0.00000	0	0
10	066, 13000 L, 250 W		3,775,286	0.00000	0	0
11	067, 22000 L, 200 W		16,747	0.00000	0	0
12	068, 916, 50000 L, 400 W		4,169,637	0.00000	0	0
13	069, 85000 L, 175 W		8,730,085	0.00000	0	0
14	102, 36000 Lumen, 400 W Flood		1,330,686	0.00000	0	0
15	103, 28500 L, 250 W SB		10,755,989	0.00000	0	0
16	104, 50000 Lumen, 400 W		1,263,186	0.00000	0	0
17	105, 36000 Lumen, 400 W		572,480	0.00000	0	0
18	106, 63000 L, 70 W		1,881,255	0.00000	0	0
19	108, 50000 L, 175 W		30,269	0.00000	0	0
20	111, 65000 L, 100 W		3,252,564	0.00000	0	0
21	113, 28500 PPSV, 250 W		1,232,000	0.00000	0	0
22	117, 9500 MONG		445,207	0.00000	0	0
23	118, 22000 MON		868	0.00000	0	0
24	119, 50000 MON		11,055	0.00000	0	0
25	124, 50000 Lumen, 400 W Flood		11,650	0.00000	0	0
26	126, 36000 Lumen, 400 W Flood		577,571	0.00000	0	0
27	127, 28500 L, 250 W Flood		810,811	0.00000	0	0
28	128, 28500 Flood		402,007	0.00000	0	0
29	131, 110000 Lumen, 1000 W Flood		0	0.00000	0	0
30	132, 110000 Lumen, 1000 W Flood		2,381,522	0.00000	0	0
31	134, 13000 Lumen, 175 W Flood		180,031	0.00000	0	0
32	135, 13000 Lumen, 175 W Flood		30,741	0.00000	0	0
33	136, 13000 Lumen, 150W Flood		3,159	0.00000	0	0
34	137, 13000 Lumen, 150 W Flood		360,058	0.00000	0	0
35	142, 22000 MON		169,414	0.00000	0	0
36			63,948	0.00000	0	0
37	213, 969 UNTRD		748,885	0.00080	607	507,135
	225, 9CS-UNTRD - On peak		155,398	0.00100	248	503,241
38	231, 223, 270, 180, 833, 833 SEC	- Off peak	252,468	0.00015	38	3,894
39	234, 831, 833 SEC		3,455,327	0.00081	503,433	2,799
40	215, 840 MGS SEC		408,455,582	0.00083	338,002	2,221,548
41	217, 841 MGS PR1		35,280,823	0.00079	27,853	2,169,603
42	227, 687-OD PR1	- On peak	38,195	0.00130	50	50
43	44	- Off peak	55,442	0.00011	9	9
44	228, 6S-TOD SEC - On peak		13,344,390	0.00137	18,282	
45	45	- Off peak	20,402,744	0.00012	2,448	17,282
46	337, 6GS-TOD SEC - On peak		12,614,283	0.00137	18,219,196	0.00012
47	47	- Off peak	18,219,196	0.00012	2,106	0
48	339, 6GS-TOD SEC - On peak		0	0.00130	0	0
49	286, 1605 SUB	- Off peak	0	0.00011	0	0
50	230, MGS TRAN		4,845,179	0.00079	3,628	898
51	51		1,150,000	0.00077		
52	281, 870 GS SEC, Block 1		1,500,560,351	0.00083	1,250,444	418,912
53	283, GS PR1, Block 1		131,351,058	0.00079	102,187	
54	285, GS SUB, Block 1		48,458,248	0.00078	37,804	
55	287, GS TRAN, Block 2		4,355,012	0.00078	3,460	
56	287, GS TRAN, Block 1		973,351	0.00078	759	0
57	288, GS TRAN, Block 2		0	0.00077	0	0
58			42,367,782	0.00081	34,318	34,060
59						257
60	302, LPS SEC		232,397,849	0.00079	220,089	1,770,432
61	308, 861 LPS PR1		1,506,688,652	0.00087	1,340,017	(33,675)
62	308, 861, 862 LGS SEC		458,088,752	0.00075	340,565	
63	308, 862 LGS SUB		86,881,309	0.00074	73,704	
64	308, LGS TRAN					
65		Total of Line (1-64)	12,247,314,431	0	\$ 9,692,332	\$ 9,692,332
66					\$ 9,692,615	\$ (3,083)

APPALACHIAN POWER COMPANY - V RGINIA
EE - RAC

TOD Revenue Requirement and Rate Design

PUR-2019-00122

Line No.	Tariff Code	Tariff Description	(A)	(B)	(C)	(D) = (C) * 0.1	(E) = (C) - (D)	(F)	(G) = (F) * ²	(H) = (F) - (G)	(I) = (D) / (G)	(J) = (E) / (H)	(K)	(L)	(M) = (I) * (K)	(N) = (J) * (L)					
			All Charges (For the Entire Class)		Off- Peak Revenue Requirement (10%)	On- Peak Revenue Requirement (90%)	Units @ Secondary Voltage Level	Off- Peak Units ²	On-Peak Units	Secondary Rate (\$/KWH)		TOD Tariff Off-Peak Units	TOD Tariff On-Peak Units	Off- Peak Revenue	On- Peak Revenue						
								<u>Energy</u>	<u>Energy</u>	<u>Off- Peak</u>	<u>On- Peak</u>	<u>kWh</u>	<u>kWh</u>								
1	30	RS - TOD	\$	5,179,196	\$	517,920	\$	4,661,276	6,442,400,610	3,918,912,297	2,523,488,322	\$	0.00013	\$	0.00185	2,121,033	1,122,003	\$	275.73	\$	2,075.71
2	225	SGS - TOD	\$	503,241	\$	50,324	\$	452,917	625,881,384	¹ 343,037,799	262,843,586	\$	0.00015	\$	0.00160	252,488	155,398	\$	37.87	\$	248.64
3	229	GS-TOD Sec	\$	1,809,805	\$	180,981	\$	1,628,825	2,698,883,556	1,513,803,787	1,185,079,770	\$	0.00012	\$	0.00137	20,402,744	13,344,360	\$	2,448.33	\$	18,281.77
4	227	GS-TOD Pri										\$	0.00011	\$	0.00130	55,442	38,195	\$	6.10	\$	49.65
5	337	LGS-TOD Sec (LGS)	\$	1,809,805	\$	180,981	\$	1,628,825	2,698,883,556	1,513,803,787	1,185,079,770	\$	0.00012	\$	0.00137	18,219,159	12,614,283	\$	2,186.30	\$	17,281.57
6	339	LGS-TOD Pri (LGS)										\$	0.00011	\$	0.00130	0	0	\$	-	\$	-
7	Total of Line(1 thru 3 + 6)		\$	9,302,047	\$	930,205	\$	8,371,843	12,486,149,116	7,289,557,869	5,176,591,447					41,050,886	27,274,239	\$	4,954.33	\$	37,937.34

Notes¹ Company does not distinguish between secondary and primary for SGS class.

Tariff	Off-Peak Unit %	Source: Load Research, On- and Off-Peak kWh Study (TYE 12/31/2018)
RS-TOD (RS)	60.83%	
SGS-LMTOD (SGS)	54.80%	
MGS-TOD (MGS)	38.11%	
GS-TOD (GS)	56.09%	
LGS-TOD (LGS)	56.09%	

² GS - TOD Primary Rates were developed by multiplying GS-TOD Sec by the appropriate energy loss factors.

Rate	Primary	Off-Peak Unit %
Off - Peak	Going Level Factor	
On - Peak	\$ 0.00011	\$ 0.00130

³ LGS - TOD Primary Rates were developed by multiplying LGS-TOD Sec by the appropriate energy loss factors.

Rate	Primary	Off-Peak Unit %
Off - Peak	Going Level Factor	
On - Peak	\$ 0.00011	\$ 0.00130

APPALACHIAN POWER COMPANY - VIRGINIA

EE - RAC

APCO Exhibit No. _____

Winona, JNC

Schedule 4B

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Rate Design Billing Determinants

PUR-2018-00122

Line No.	Tariff Code	Tariff Description	Billing Determinants		Lost Factor ¹	Units @ Secondary Voltage Level	(C) = (A) * (B)
			End Day	End Day			
1		11 RS-LMWH	21,098,550	1,0000	21,098,550		
2	15 RS	6,391,120,052	1,0000		6,391,120,052		
3	20 RS-EHP	28,768,807	1,0000		28,768,807		
4	30 RS-TOD	3,243,036	1,0000		3,243,036		
5	51 RS-LMWH	170,174	1,0000		170,174		
6	653 911 8500 L_175W	18,857,848	1,0000		18,857,848		
7	654_ 912 8500 L_ 100W	11,583,420	1,0000		11,583,420		
8	655_ 913 23000 L_ 400W	3,775,298	1,0000		3,775,298		
9	656_ 13000 L_ 250 W	16,747	1,0000		16,747		
10	657_ 22000 L_ 200 W	4,168,937	1,0000		4,168,937		
11	658_ 50000 L_ 400 W	8,738,985	1,0000		8,738,985		
12	659_ 85000 L_ 175W	1,330,988	1,0000		1,330,988		
13	102_ 360000 Lumen, 400 W Flood	10,735,366	1,0000		10,735,366		
14	103_ 285000 L_ 250 W SS	1,253,186	1,0000		1,253,186		
15	104_ 50000 Lumen, 400 W	572,480	1,0000		572,480		
16	105_ 360000 Lumen, 400 W	1,861,255	1,0000		1,861,255		
17	106_ 63000 L_ 70 W	30,269	1,0000		30,269		
18	109_ 50000 L_ 400 W Flood	3,252,564	1,0000		3,252,564		
19	111_ 85000 L_ 100 W	1,232,000	1,0000		1,232,000		
20	113_ 285000 PFSL_ 250 W	445,297	1,0000		445,297		
21	117_ 85000 MONG	868	1,0000		868		
22	118_ 220000 MON	11,095	1,0000		11,095		
23	119_ 50000 MON	11,680	1,0000		11,680		
24	124_ 500000 Lumen, 400 W Flood	577,571	1,0000		577,571		
25	128_ 285000 L_ 250 W Flood	816,811	1,0000		816,811		
26	131_ 1100000 Lumen, 1000 W Flood	2,381,522	1,0000		2,381,522		
27	132_ 1100000 Lumen, 1000 W Flood	0	1,0000		0		
28	134_ 130000 Lumen, 175 W Flood	30,141	1,0000		30,141		
29	135_ 130000 Lumen, 175 W Flood	3,159	1,0000		3,159		
30	136_ 130000 Lumen, 150 W Flood	386,058	1,0000		386,058		
31	137_ 130000 Lumen, 150 W Flood	169,414	1,0000		169,414		
32	142_ 220000 MON	63,948	1,0000		63,948		
33	227_ GS-TOD PRI	93,837	1,0000		93,837		
34	227_ GS-TOD PRI	749,885	1,0000		749,885		
35	213_ GS-SUMTRD	408,435,852	1,0000		408,435,852		
36	215_ 840 MGS SEC	35,256,923	0	0,9520	33,564,598		
37	217_ 841 MGS PRI	42,387,792	1,0000		42,387,792		
38	222_ SWS	407,886	1,0000		407,886		
39	226_ GS5-LMTD	93,837	0,9820		98,1943		
40	227_ GS-TOD PRI	35,747,104	1,0000		35,747,104		
41	229_ GS-TOD SEC	30,833,442	1,0000		30,833,442		
42	337_ LGS-TOD SEC	0	0,9820		0		
43	339_ LGS-TOD PRI	1,0000			621,535,138		
44	231_ 234_ 281_ 830_ 833_ SEC SEC	621,535,138			3,455,327		
45	234_ 831_ SEC PRI	0,9820			5,053,151		
46	236_ MGS SUB	4,845,179	0,9463		4,594,924		
47	237_ LGS TRAN	1,0000			1,072,278		
48	261_ 870 GS SEC*	2,010,307,135	1,0000		2,010,307,135		
49	263_ GS PRI*	179,817,308	0,9820		177,188,262		
50	265_ GS SUB	5,328,933	0,9463		5,053,151		
51	302_ LPS/SEC*	202,387,649	1,0000		202,387,649		
52	306_ 861_ LPS PRI*	1,566,688,558	0,9520		1,434,398,521		
53	308_ 309_ LPS/SEC*	438,086,752	0,9483		434,428,410		
54	310_ LPS TRAN*	99,681,309	0,9324		92,644,430		
55	378_ 380_ 850_ LGS SEC*	2,188,483	1,0000		2,188,483		
56	379_ 381_ 851_ 858_ LGS PRI	4,635,953	0,9520		4,413,387		
57	382_ LGS SUB	0	0,9483		0		
58	386_ LGS TRAN	0	0,9324		0		
59	Total KWH [Line 1 - 89]	12,247,314,431	0		12,133,278,513		

¹ Loss factors updated for last year ending 12/31/2018
Adjusted Exempt customers kWh (page 2 Line No. 3)

APPALACHIAN POWER COMPANY - VIRGINIA
 EE - RAC

Time of Day Billing Units

PUR-2019-00122

Line No.	Tariff Code	Tariff Description	Billing Determinants TYE 12/31/2018			Loss Factor ¹	(D) = (A) * (C)		(E) = (B) * (C)		
					Energy						
			On-Peak	Off-Peak			On-Peak	Off-Peak			
1	30	RS-TOD	1,122,003	2,121,033	1.00000		1,122,003	2,121,033			
2	225	SGS-LMTOD	155,398	252,488	1.00000		155,398	252,488			
3	229	GS-TOD SEC	13,344,360	20,402,744	1.00000		13,344,360	20,402,744			
4	227	GS-TOD PRI	38,195	55,442	0.9520		36,362	52,781			
5	337	LGS-TOD SEC	12,614,283	18,219,159	1.00000		12,614,283	18,219,159			
6	339	LGS-TOD PRI	0	0	0.9520		0	0			
7	Total KWH (Line 1 - 6)			27,274,239	41,050,866		27,272,406	41,048,205			

Note

¹ Loss factor per Demand & Energy Study updated with test year 2018 data

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