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December 22, 2022

Ms. A. Shonta Dunston
Chief Clerk
N.C. Utilities Commission
430 N. Salisbury Street, Room 5063
Raleigh, NC 27603

**Re: *New River Light and Power Company
Exhibits (Public) to Direct Testimony of Randall E. Halley
Docket No. E-34, Sub 54***

Dear Ms. Dunston:

Attached hereto, on behalf of New River Light and Power Company, are the public Exhibits to the Direct Testimony of Randall E. Halley to be filed in the above-referenced rate case docket. REH Exhibits 12 and 20 are confidential in nature and will be filed under separate cover.

If you have any questions concerning this filing, or exhibits thereto, please do not hesitate to contact me.

Sincerely,

A handwritten signature in cursive script that reads 'M Gray Styers, Jr.'.

M. Gray Styers, Jr.

cc: Mr. David T. Drooz
Mr. Randall E. Halley
Mr. Edmond C. Miller
Mr. Zeke Creech, NC Utilities Commission Public Staff
Ms. Jessica Heironimus, NC Utilities Commission Public Staff
Ms. Jennifer Harrod, NC Utilities Commission Staff

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Revenue Requirement Unadjusted
For Twelve Months Ended December 31, 2021

Line	Description	Revenue Requirement
Expenses:		
1	Purchased Power	\$ 10,110,093.43
2	Distribution	\$ 1,385,421.80
3	Customer Service	\$ 778,783.82
4	Administrative & General	\$ 1,283,605.54
5	Depreciation	\$ 973,921.49
6	Amortization of Unrecovered Plant	\$ 31,046.30
7	(Gain)Loss on Disposition of Property	\$ 18,137.56
8	Interest Expense	\$ 13,066.09
9	Jobbing Expenses	<u>\$ 187,471.04</u>
10	Total Expenses	\$ 14,781,547.07
11	Less: Other Operating Revenues	<u>\$ (257,297.41)</u>
Rate Base Calculations:		
12	Electric Plant In Service	\$ 32,309,740.81
13	LESS: Accumulated Depreciation	<u>\$ (15,994,562.41)</u>
14	Net Plant in Service	\$ 16,315,178.40
15	Plant Materials and Operating Supplies	\$ 586,437.48
16	Investments - Blue Ridge Electric Membership Corporation	\$ 6,563,578.86
17	Investments - North Carolina Electric Membership Corporation	\$ 417,470.54
18	Investments - Meridian Cooperative	\$ 9,372.45
19	Regulatory Asset (Payne Branch Dam)	\$ 137,770.70
20	Regulatory Asset (Unamortized Old Substation)	\$ 120,526.18
21	Regulatory Asset (UBIT)	\$ 886,312.27
22	Prepayments	\$ 81,592.79
23	Customer Deposits	\$ (235,508.47)
24	Cash Working Capital	<u>\$ 846,619.66</u>
25	Total Rate Base	\$ 25,729,350.86
26	Requested Rate of Return	7.007%
27	Return on Rate Base	<u>\$ 1,802,855.62</u>

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Revenue Requirement Unadjusted
For Twelve Months Ended December 31, 2021

Line	Description	Revenue Requirement
28	Total Revenue Requirement	\$ 16,327,105.28
29	Uncollectible Accounts	\$ 45,109.09
30	Regulatory Commission Fee	\$ 27,224.49
31	Adjusted Revenue Requirement	\$ 16,399,438.86
 Rate Revenues:		
32	Residential	\$ 5,845,335.80
33	Commercial	\$ 6,655,168.74
34	ASU Campus	\$ 3,486,675.37
35	Security Lighting	\$ 300,006.68
36	Total Rate Revenues	\$ 16,287,186.59
 Revenue Deficiency at Present Rates		
37	Total Revenue Deficiency	\$ 112,252.27
38	Percent Revenue Deficiency	0.69%

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Addition of New Campus Substation
Rate Base and Depreciation

Line	Month	Actual Expenditures	AFUDC [1]	Total at Commercial Operation Date
1	Aug-20	\$ -	\$ -	\$ -
2	Sep-20	\$ -	\$ -	\$ -
3	Oct-20	\$ -	\$ -	\$ -
4	Nov-20	\$ 12,800.00	\$ 1,389.15	\$ 14,189.15
5	Dec-20	\$ 41,720.39	\$ 4,277.70	\$ 45,998.09
6	Jan-21	\$ (2,514.29)	\$ (242.80)	\$ (2,757.09)
7	Feb-21	\$ 8,000.00	\$ 725.12	\$ 8,725.12
8	Mar-21	\$ 7,000.00	\$ 593.19	\$ 7,593.19
9	Apr-21	\$ 9,000.00	\$ 709.87	\$ 9,709.87
10	May-21	\$ 6,000.00	\$ 438.24	\$ 6,438.24
11	Jun-21	\$ 101,492.00	\$ 6,824.04	\$ 108,316.04
12	Jul-21	\$ -	\$ -	\$ -
13	Aug-21	\$ 86,615.20	\$ 4,826.63	\$ 91,441.83
14	Sep-21	\$ 339,012.62	\$ 16,955.89	\$ 355,968.51
15	Oct-21	\$ 48,586.28	\$ 2,154.17	\$ 50,740.45
16	Nov-21	\$ 122,563.78	\$ 4,741.88	\$ 127,305.66
17	Dec-21	\$ 1,226,599.49	\$ 40,565.76	\$ 1,267,165.25
18	Jan-22	\$ (71,755.84)	\$ (1,972.19)	\$ (73,728.03)
19	Feb-22	\$ 91,762.70	\$ 2,012.18	\$ 93,774.87
20	Mar-22	\$ 558,859.56	\$ 9,166.06	\$ 568,025.62
21	Apr-22	\$ 41,875.15	\$ 456.63	\$ 42,331.78
22	May-22	\$ 190,280.71	\$ 1,034.65	\$ 191,315.36
23	Jun-22	\$ 40,124.73	\$ -	\$ 40,124.73
24	Jul-22	\$ -	\$ -	\$ -
25	Total	\$ 2,858,022.48	\$ 94,656.15	\$ 2,952,678.63
26				
27	Annual Depreciation [2]			\$ 89,475.11
28				
29	Depreciation Expense as of December 31, 2022			\$ 44,737.55
30	Depreciation Expense as of July 31, 2023			\$ 52,193.81
31	Accumulated Depreciation as of July 31, 2023			\$ 96,931.37

Notes:

- [1] Calculated at NRLP's currently approved ROR (%) 6.525%
- [2] Assumed Depreciation Life (Years) 33.0

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light & Power Company
Amortize Deferral Balance Related to Campus Substation Upgrade
For the Test Year Ended December 31, 2021**

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Dec 22 2022

Line No	Description	Source	Amount
1	Total Deferred Costs to be amortized	Exh_REH-2C, Col (c), L3	\$ 323,378
2	Amortization period		3
3	Amortization expense	L1/L2	<u>\$ 107,793</u>
4	Regulatory Asset at August 1, 2023	L1	\$ 323,378
5	Less first year of amortization	L3	107,793
6	Total Balance of Campus Substation costs to be deferred	L4-L5	<u>\$ 215,585</u>

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light & Power Company
Amortize Deferral Balance Related to Campus Substation Upgrade
For the Test Year Ended December 31, 2021

Summary of Deferred Costs

Line No	Description	Source	2022 (a)	2023 (b)	Total (c)
1	Depreciation expense	Exh_REH-2A, L29 & L30	\$ 44,738	\$ 52,194	\$ 96,931
2	Cost of capital	Exh_EH-2E, L21	\$ 100,180	\$ 126,266	\$ 226,446
3	Total deferred costs	L1 + L2	<u>\$ 144,917</u>	<u>\$ 178,460</u>	<u>\$ 323,378</u>

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light & Power Company
Amortize Deferral Balance Related to Campus Substation Upgrade
For the Test Year Ended December 31, 2021**

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Dec 22 2022

Line No	Description	Source	2022 (a)	2023 (b)
1	Net investment in plant, beginning of period	Exh_REH-2A, L25	\$ 2,952,679	\$ 2,952,679
2	Less: Depreciation expense for the year	Exh_REH-2A, L29 & L30	44,738	52,194
3	Net investment in plant, end of period	L1 + L2	<u>\$ 2,907,941</u>	<u>\$ 2,900,485</u>
4	Average investment in plant for the period	(L1+L3)/2	\$ 2,930,310	\$ 2,926,582
5	Annual cost of capital rate before tax	L24	6.525%	6.525%
6	Number of months of investment period		6	7
7	Cost of capital rate for the period	(L5/12)*L6	3.263%	3.806%
8	Cost of capital for year	L4*L7	<u>\$ 95,601</u>	<u>\$ 111,393</u>
	Cost of capital on deferred costs: Deferred costs for 2022			
9	Depreciation expense	Exh_REH-2A, L29	\$ 44,738	\$ 44,738
10	Cost of capital on deferred costs:	L8	95,601	95,601
11	Incremental O&M expenses	N/A	-	-
12	Total	Sum of Lines 9-12	<u>\$ 140,339</u>	<u>\$ 140,339</u>
	Cost of capital on deferred costs: Deferred costs for 2023			
13	Depreciation expense	Exh_REH-2A, L30	\$ -	\$ 52,194
14	Cost of capital on deferred costs:	L8	-	111,393
15	Incremental O&M expenses	N/A	-	-
16	Total	Sum of Lines 13-15	<u>\$ -</u>	<u>\$ 163,587</u>
17	Deferred costs for 2022 and 2023	L12 + L16	\$ 140,339	\$ 303,926
18	Annual cost of capital rate	L24	6.525%	6.525%
19	Number of Months in Investment period	Exh_REH-2D, L4	6	9
20	Additional cost of capital to be deferred in 2022/2023	(L18/12)*L17*L19	<u>4,579</u>	<u>14,873</u>
21	Total cost of capital deferred cost	L8 + L20	<u>\$ 100,180</u>	<u>\$ 126,266</u>

Calculation of Pre-Tax Cost of Capital

Docket No. E-34, Sub 46 [Prior Rate Case]

	Ratio	Cost Rate	Weighted Cost Rate
22	Long Term debt	50%	3.80%
23	Member's equity	50%	4.625%
24	Total pre-tax cost of capital		<u>6.525%</u>

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Addition of Laydown Yard
Rate Base and Depreciation

Line	Month	Actual Expenditures	AFUDC [1]	Total at Commercial Operation Date
1	Aug-20	\$ -	\$ -	\$ -
2	Sep-20	\$ -	\$ -	\$ -
3	Oct-20	\$ -	\$ -	\$ -
4	Nov-20	\$ -	\$ -	\$ -
5	Dec-20	\$ -	\$ -	\$ -
6	Jan-21	\$ -	\$ -	\$ -
7	Feb-21	\$ 1,364.74	\$ 131.79	\$ 1,496.53
8	Mar-21	\$ 12,776.00	\$ 1,158.01	\$ 13,934.01
9	Apr-21	\$ 1,540.00	\$ 130.50	\$ 1,670.50
10	May-21	\$ 24,750.00	\$ 1,952.15	\$ 26,702.15
11	Jun-21	\$ 1,757.03	\$ 128.33	\$ 1,885.36
12	Jul-21	\$ -	\$ -	\$ -
13	Aug-21	\$ 7,841.07	\$ 481.96	\$ 8,323.03
14	Sep-21	\$ 370.06	\$ 20.62	\$ 390.68
15	Oct-21	\$ 3,939.10	\$ 197.02	\$ 4,136.12
16	Nov-21	\$ 217,440.30	\$ 9,640.63	\$ 227,080.93
17	Dec-21	\$ 306,540.52	\$ 11,859.76	\$ 318,400.28
18	Jan-22	\$ -	\$ -	\$ -
19	Feb-22	\$ 840.00	\$ 23.09	\$ 863.09
20	Mar-22	\$ 7,236.10	\$ 158.67	\$ 7,394.77
21	Apr-22	\$ 6,160.00	\$ 101.03	\$ 6,261.03
22	May-22	\$ 253.00	\$ 2.76	\$ 255.76
23	Jun-22	\$ 2,850.00	\$ 15.50	\$ 2,865.50
24	Jul-22	\$ -	\$ -	\$ -
25	Total	\$ 595,657.92	\$ 26,001.83	\$ 621,659.75
26				
27	Annual Depreciation [2]			\$ 15,972.76
28				
29	Depreciatoin Expense as of December 31, 2022			\$ 6,655.32
30	Depreciatoin Expense as of July 31, 2023			\$ 9,317.44
31	Accumulated Depreciation as of July 31, 2023			\$ 15,972.76

Notes:

- [1] Calculated at NRLP's currently approved ROR (%) 6.525%
- [2] Assumed Depreciation Life (Years) 38.92

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Addition of SCADA
Rate Base and Depreciation

Line	Month	Actual Expenditures	AFUDC [1]	Total at Commercial Operation Date
1	Aug-20	\$ -	\$ -	\$ -
2	Sep-20	\$ -	\$ -	\$ -
3	Oct-20	\$ -	\$ -	\$ -
4	Nov-20	\$ -	\$ -	\$ -
5	Dec-20	\$ 4,594.06	\$ 471.04	\$ 5,065.10
6	Jan-21	\$ (2,067.00)	\$ (199.61)	\$ (2,266.61)
7	Feb-21	\$ 4,202.37	\$ 380.90	\$ 4,583.27
8	Mar-21	\$ 1,415.10	\$ 119.92	\$ 1,535.02
9	Apr-21	\$ 1,728.33	\$ 136.32	\$ 1,864.65
10	May-21	\$ 4,336.74	\$ 316.76	\$ 4,653.50
11	Jun-21	\$ 4,076.23	\$ 274.07	\$ 4,350.30
12	Jul-21	\$ -	\$ -	\$ -
13	Aug-21	\$ -	\$ -	\$ -
14	Sep-21	\$ 71.93	\$ 3.60	\$ 75.53
15	Oct-21	\$ -	\$ -	\$ -
16	Nov-21	\$ 85,754.23	\$ 3,317.75	\$ 89,071.98
17	Dec-21	\$ 44,653.16	\$ 1,476.76	\$ 46,129.92
18	Jan-22	\$ (87.29)	\$ (2.40)	\$ (89.69)
19	Feb-22	\$ 575.40	\$ 12.62	\$ 588.02
20	Mar-22	\$ 55,168.05	\$ 904.83	\$ 56,072.88
21	Apr-22	\$ 1,438.50	\$ 15.69	\$ 1,454.19
22	May-22	\$ 1,078.88	\$ 5.87	\$ 1,084.75
23	Jun-22	\$ -	\$ -	\$ -
24	Jul-22	\$ -	\$ -	\$ -
25	Total	\$ 206,938.69	\$ 7,234.11	\$ 214,172.80
26				
27	Annual Depreciation [2]			\$ 15,385.98
28				
29	Depreciatoin Expense as of December 31, 2022			\$ 7,692.99
30	Depreciatoin Expense as of July 31, 2023			\$ 8,975.15
31	Accumulated Depreciation as of July 31, 2023			\$ 16,668.14

Notes:

- [1] Calculated at NRLP's currently approved ROR (%) 6.525%
- [2] Assumed Depreciation Life (Years) 13.92

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Addition of Underground Conversions [1]
Rate Base and Depreciation

Line	Month	Actual Expenditures	AFUDC [2]	Total at Commercial Operation Date
1	Aug-20	\$ -	\$ -	\$ -
2	Sep-20	\$ -	\$ -	\$ -
3	Oct-20	\$ -	\$ -	\$ -
4	Nov-20	\$ 122.33	\$ 14.01	\$ 136.34
5	Dec-20	\$ 1,411.62	\$ 153.20	\$ 1,564.82
6	Jan-21	\$ (3,079.27)	\$ (315.73)	\$ (3,395.00)
7	Feb-21	\$ 1,286.41	\$ 124.23	\$ 1,410.64
8	Mar-21	\$ -	\$ -	\$ -
9	Apr-21	\$ -	\$ -	\$ -
10	May-21	\$ -	\$ -	\$ -
11	Jun-21	\$ -	\$ -	\$ -
12	Jul-21	\$ -	\$ -	\$ -
13	Aug-21	\$ 178,922.71	\$ 10,997.57	\$ 189,920.28
14	Sep-21	\$ 140,268.84	\$ 7,816.48	\$ 148,085.32
15	Oct-21	\$ 244,589.15	\$ 12,233.25	\$ 256,822.40
16	Nov-21	\$ 49,508.79	\$ 2,195.07	\$ 51,703.86
17	Dec-21	\$ 374,559.67	\$ 14,491.36	\$ 389,051.03
18	Jan-22	\$ (1,290.78)	\$ (42.69)	\$ (1,333.47)
19	Feb-22	\$ 38,894.44	\$ 1,069.00	\$ 39,963.44
20	Mar-22	\$ 44,597.49	\$ 977.94	\$ 45,575.43
21	Apr-22	\$ 49,388.05	\$ 810.03	\$ 50,198.09
22	May-22	\$ 58,034.90	\$ 632.85	\$ 58,667.74
23	Jun-22	\$ 85,792.19	\$ 466.50	\$ 86,258.68
24	Jul-22	\$ 1,178.32	\$ -	\$ 1,178.32
25	Total	\$ 1,264,184.84	\$ 51,623.06	\$ 1,315,807.90
26				
27	Annual Depreciation [3]			\$ 26,853.22
28				
29	Depreciatoin Expense as of December 31, 2022			\$ 11,188.84
30	Depreciatoin Expense as of July 31, 2023			\$ 15,664.38
31	Accumulated Depreciation as of July 31, 2023			\$ 26,853.22

Notes:

[1] Includes University Village, Hillcrest Circle and Wildwood Lane projects.

[2] Calculated at NRLP's currently approved ROR (%) 6.525%

[3] Assumed Depreciation Life (Years) 49.00

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Addition of Warehouse
Rate Base and Depreciation

Line	Month	Actual Expenditures	AFUDC [1]	Total at Commercial Operation Date
1	Aug-20	\$ -	\$ -	\$ -
2	Sep-20	\$ -	\$ -	\$ -
3	Oct-20	\$ -	\$ -	\$ -
4	Nov-20	\$ -	\$ -	\$ -
5	Dec-20	\$ 33,403.62	\$ 3,625.21	\$ 37,028.83
6	Jan-21	\$ (7,944.62)	\$ (814.58)	\$ (8,759.20)
7	Feb-21	\$ 1,329.84	\$ 128.42	\$ 1,458.26
8	Mar-21	\$ -	\$ -	\$ -
9	Apr-21	\$ -	\$ -	\$ -
10	May-21	\$ 29,163.27	\$ 2,300.25	\$ 31,463.52
11	Jun-21	\$ 7,677.96	\$ 560.80	\$ 8,238.77
12	Jul-21	\$ 17,081.00	\$ 1,148.48	\$ 18,229.48
13	Aug-21	\$ 20,380.76	\$ 1,252.71	\$ 21,633.47
14	Sep-21	\$ 66,713.55	\$ 3,717.61	\$ 70,431.16
15	Oct-21	\$ 142,675.18	\$ 7,135.97	\$ 149,811.15
16	Nov-21	\$ 119,789.14	\$ 5,311.08	\$ 125,100.22
17	Dec-21	\$ 225,840.06	\$ 8,737.54	\$ 234,577.60
18	Jan-22	\$ (1,320.25)	\$ (43.66)	\$ (1,363.91)
19	Feb-22	\$ 77,817.34	\$ 2,138.79	\$ 79,956.13
20	Mar-22	\$ 116,940.44	\$ 2,564.28	\$ 119,504.72
21	Apr-22	\$ 27,240.58	\$ 446.78	\$ 27,687.36
22	May-22	\$ 180,074.86	\$ 1,963.64	\$ 182,038.50
23	Jun-22	\$ 16,950.65	\$ 92.17	\$ 17,042.82
24	Jul-22	\$ -	\$ -	\$ -
25	Total	\$ 1,073,813.38	\$ 40,265.49	\$ 1,114,078.88
26				
27	Annual Depreciation [2]			\$ 28,624.84
28				
29	Depreciatoin Expense as of December 31, 2022			\$ 11,927.02
30	Depreciatoin Expense as of July 31, 2023			\$ 16,697.82
31	Accumulated Depreciation as of July 31, 2023			\$ 28,624.84

Notes:

[1] Calculated at NRLP's currently approved ROR (%)	6.525%
[2] Assumed Depreciation Life (Years)	38.92

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Old Campus Substation
Development of Regulatory Asset

Line	Description	Amount
1	Plant in Service and Accumulated Depreciation [1]	
2	Plant in Service as of 10/27/2021	\$ 625,592.26
3	Less: Accumulated Depreciation as of 10/27/2021	\$ 479,066.08
4	Less: Cash Received (Scrap)	<u>\$ 26,000.00</u>
5	Net Plant in Service as of 10/27/2021	<u>\$ 120,526.18</u>
6		
7	Establish Regulatory Asset to Recover Remaining Balance	
8	Expense Impact:	
9	Regulatory Asset	\$ 120,526.18
10	Amortization Period (Years)	<u>3</u>
11	Annual Amortization Amount	<u>\$ 40,175.39</u>
12		
13	Rate Base Impact:	
14	Regulatory Asset	\$ 120,526.18
15	One year of Annual Amortization	<u>\$ (40,175.39)</u>
16	Unamortized Balance to be included in Rate Base	<u>\$ 80,350.79</u>

Notes:

[1] Old campus substation decommissioned and removed from books as of 10/27/2021.

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light & Power Company
Amortize Deferral Balance Related to UBIT
For the Test Year Ended December 31, 2021

Line No	Description	Source	Amount
1	Total Deferred Costs to be amortized	NRLP UBIT Detail	\$ 1,027,795
2	Amortization period		3
3	Amortization expense	L1/L2	<u>\$ 342,598</u>
4	Regulatory Asset at August 1, 2023	L1	\$ 1,027,795
5	Less first year of amortization	L3	342,598
6	Total UBIT expense to be deferred	L4-L5	<u>\$ 685,197</u>

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Labor Adjustments**

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Dec 22 2022

Line	Description	2021 Expenses	Proforma Adjustments	Adjusted Expenses
1	ASU Support Departments:			
2	Information Technology	\$ 17,991	\$ 24,509	\$ 42,500
3	Institutional Integrity (GC, IA & ERM)	\$ 114,130	\$ 61,513	\$ 175,643
4	Human Resources	\$ 18,594	\$ 7,263	\$ 25,857
5	Assistant Vice Chancellor	\$ 46,543	\$ (11,615)	\$ 34,928
6	Vice Chancellor	\$ 18,763	\$ 1,337	\$ 20,100
7	Total ASU Support Departments	\$ 216,021	\$ 83,007	\$ 299,028
8				
9	Salary Line Items:			
10	Expense Job & Contract ASU-Labor	\$ 52,643.50	\$ 10,325.82	\$ 62,969.32
11	Expense Job & Contract TOB-Labor	\$ 2,056.38	\$ 403.35	\$ 2,459.73
12	Operations Superv & Engineering-Labor	\$ 81,869.26	\$ 16,058.35	\$ 97,927.61
13	Station Expense-Labor	\$ 16,568.41	\$ 3,249.83	\$ 19,818.24
14	Meter Expense-Labor	\$ 10,499.71	\$ 2,059.48	\$ 12,559.19
15	Customer Install Expense-Labor	\$ 16,568.41	\$ 3,249.83	\$ 19,818.24
16	Miscellaneous Distribution Expense-Labor	\$ 176,023.27	\$ 34,526.30	\$ 210,549.57
17	Maintenance Superv & Engineering-Labor	\$ 61,958.11	\$ 12,152.85	\$ 74,110.96
18	Maintenance Station Equipment-Labor	\$ 8,344.40	\$ 1,636.72	\$ 9,981.12
19	Maintenance Overhead Lines-Labor	\$ 56,368.31	\$ 11,056.43	\$ 67,424.74
20	Maintenance Underground Lines-Labor	\$ 31,795.23	\$ 6,236.51	\$ 38,031.74
21	Maintenance Line Transformers-Labor	\$ 769.79	\$ 150.99	\$ 920.78
22	Maintenance Street Lights-Labor	\$ 20,865.21	\$ 4,092.63	\$ 24,957.84
23	Maintenance-Meters-Labor	\$ 38,214.18	\$ 7,495.57	\$ 45,709.75
24	Maintenance Misc Distribution Plant-Labor	\$ 64,648.02	\$ 12,680.46	\$ 77,328.48
25	Supervision Customer Accounts-Labor	\$ 25,333.87	\$ 4,969.14	\$ 30,303.01
26	Meter Reading Expense-Labor	\$ 401.53	\$ 78.76	\$ 480.29
27	Customer Records & Collections Expense-Labor	\$ 234,866.65	\$ 46,068.21	\$ 280,934.86
28	Administrative & General-Salaries	\$ 269,658.88	\$ 52,892.57	\$ 322,551.45
29	Injuries & Damages Expense-Labor	\$ 4,425.00	\$ 867.95	\$ 5,292.95
30	Maintenance Of General Plant-Labor	\$ 1,439.25	\$ 282.30	\$ 1,721.55
31	Total labor expensed	\$ 1,175,317.37	\$ 230,534.06	\$ 1,405,851.43
32				
33	Total Salaries	\$ 1,999,680.94	\$ 230,534.06	\$ 2,230,215.00
34	% Increase from Test Year 2021			11.53%
35	Capitalized Salaries [1]	\$ 824,363.57		\$ 824,363.57

Note:

[1] Difference between total salaries and total labor expensed is capitalized labor.

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Inflation Adjustments

Total Unadjusted Operating Expense at December 31, 2021		\$ 14,781,547.07
Less: Items not Impacted by Inflation or Already Adjusted		
Depreciation Expense	\$ (973,921.49)	
Amortization of Unrecovered Plant	\$ (31,046.30)	
Property Transaction Costs	\$ (18,137.56)	
Interest Expense	\$ (13,066.09)	
Purchased Power	\$ (10,110,093.43)	
All Labor	\$ (1,175,317.37)	
Total Items not Impacted by Inflation or Already Adjusted		<u>\$ (12,321,582.24)</u>
Operating Expense at December 31, 2021 to Adjust for Inflation		\$ 2,459,964.83
12-month % Change - Consumer Price Index - September 2022 [1]		6.60%
Average Monthly Inflator		0.55%
Adjusted Operating Expense at July 31, 2023		\$ 2,700,375.58
Adjustment to Operating Expense through July 31, 2023		\$ 240,410.75

[1] CPI for all items less food and energy.

<https://www.bls.gov/charts/consumer-price-index/consumer-price-index-by-category.htm>

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Accumulated Depreciation Adjustment**

Total Unadjusted Accumulated Depreciation at December 31, 2021			\$ (15,994,562.41)
Total Unadjusted Depreciation Expense at December 31, 2021	\$	973,921.49	
Average Monthly Depreciation Expense	\$	81,160.12	
Number of Months from December 31, 2021 to August 1, 2023		19	
Accumulated Depreciation for this Period	\$	1,542,042	\$ <u>(1,542,042)</u>
Accumulated Depreciation at July 31, 2023			\$ (17,536,604.77)

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Proforma Adjusted Revenue Requirement
For Twelve Months Ended December 31, 2021**

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Dec 22 2022

Line	Main	GL#	Description	Revenue Requirement	Proforma Adjustment	Adjusted Revenue Requirement
Other Operating Income:						
1	415	4151000	Revenue Job & Contract ASU	\$ (127,573.19)	\$ -	\$ (127,573.19)
2	415	4152000	Rev Job&Con TOB	\$ (4,032.49)	\$ -	\$ (4,032.49)
3	419	4191100	Int Inc Other	\$ (1,479.86)	\$ -	\$ (1,479.86)
4	421	4210000	Misc Non-Operating Income	\$ (2.07)	\$ -	\$ (2.07)
5	451	4511000	Misc Svc Revenue-Conn & Reconnect Chrgs	\$ (44,466.28)	\$ -	\$ (44,466.28)
6	454	4540000	Rent Electric Property	\$ (17,683.45)	\$ -	\$ (17,683.45)
7	454	4541000	Rent Electric Property-Fiber	\$ (9,808.64)	\$ -	\$ (9,808.64)
8	456	4560000	Oth Elect Revenue	\$ (52,251.43)	\$ -	\$ (52,251.43)
9			Total Other Operating Income	\$ (257,297.41)	\$ -	\$ (257,297.41)
10						
11			Operating Expenses:			
12	403	4030000	Depreciation Expense	\$ 973,921.49	\$ -	\$ 973,921.49
13			Plus: Depreciation of New Campus Substation		\$ 89,475.11	\$ 89,475.11
14			Plus: Depreciation of Laydown Yard		\$ 15,972.76	\$ 15,972.76
15			Plus: Depreciation of SCADA		\$ 15,385.98	\$ 15,385.98
16			Plus: Depreciation of Underground Conversions		\$ 26,853.22	\$ 26,853.22
17			Plus: Depreciation of Warehouse		\$ 28,624.84	\$ 28,624.84
18			Total Depreciation Expense	\$ 973,921.49	\$ 176,311.91	\$ 1,150,233.40
19						
20	407	4070000	Amortization of Unrecovered Plant (Old Meters)	\$ 31,046.30	\$ (31,046.30)	\$ -
21			Amortization of Unrecovered Plant (Old Campus Substation)	\$ -	\$ 40,175.39	\$ 40,175.39
22			Amortization of Unrecovered Return (New Campus Substation)	\$ -	\$ 107,792.56	\$ 107,792.56
23			Amortization of Unrecovered Taxes (UBIT)	\$ -	\$ 342,598.29	\$ 342,598.29
24			Amortization of Rate Case Expenses	\$ -	\$ 83,333.33	\$ 83,333.33
25			Total Amortization of Unrecovered Plant	\$ 31,046.30	\$ 542,853.27	\$ 573,899.57
26						
27	414	4140000	Gain/Loss Disposing Utility Property	\$ 33,663.47	\$ -	\$ 33,663.47
28	414	4140001	Sale Of Surplus Property	\$ (15,525.91)	\$ -	\$ (15,525.91)
29			Total Property Transaction Costs	\$ 18,137.56	\$ -	\$ 18,137.56
30						
31	416	4161000	Expense Job & Contract ASU	\$ 87,871.21	\$ -	\$ 87,871.21
32	416	4161001	Expense Job & Contract ASU-Labor	\$ 52,643.50	\$ 10,325.82	\$ 62,969.32
33	416	4161002	Expense Job & Contract ASU-Benefits	\$ 40,456.60	\$ -	\$ 40,456.60
34	416	4161004	Expense Job & Contract ASU-Transportation	\$ 2,867.98	\$ -	\$ 2,867.98
35	416	4162001	Expense Job & Contract TOB-Labor	\$ 2,056.38	\$ 403.35	\$ 2,459.73
36	416	4162002	Expense Job & Contract TOB-Benefits	\$ 1,427.13	\$ -	\$ 1,427.13
37	416	4162004	Expense Job & Contract TOB-Transportation	\$ 148.24	\$ -	\$ 148.24
38	416	4166001	Expense Job & Contract Camp Broadstone	\$ -	\$ -	\$ -
39	416	4166002	Expense Job & Contract Camp Broadstone-Benefits	\$ -	\$ -	\$ -
40	416	4166004	Expense Job & Contract Camp Broadstone-Transportation	\$ -	\$ -	\$ -
41			Total Expense Job & Contract ASU	\$ 187,471.04	\$ 10,729.17	\$ 198,200.21
42						
43	431	4310000	Interest Expense Consumer Deposits	\$ 12,126.18	\$ -	\$ 12,126.18
44	431	4310010	Interest Expense - STIF Account	\$ 939.91	\$ -	\$ 939.91
45			Total Interest Expense	\$ 13,066.09	\$ -	\$ 13,066.09
46						
47	555	5550000	Purchased Power	\$ 10,531,677.84	\$ 4,398,412.51	\$ 14,930,090.35
48	555	5550010	Purchased Power - Coal Ash Cost Recovery Expense (CACR)	\$ (431,602.02)	\$ 431,602.02	\$ -
49	555	5551000	Purchased Power-Generation (Avoided Energy Cost)	\$ 10,017.61	\$ -	\$ 10,017.61
50			Total Purchased Power	\$ 10,110,093.43	\$ 4,830,014.53	\$ 14,940,107.96
51						
52	580	5800001	Operations Superv & Engineering-Labor	\$ 81,869.26	\$ 16,058.35	\$ 97,927.61
53	580	5800002	Operations Superv & Engineering-Benefits	\$ 64,777.61	\$ -	\$ 64,777.61
54	580	5800004	Operations Superv & Engineering-Transportation	\$ 5,481.65	\$ -	\$ 5,481.65
55			Total Operations Superv & Engineering	\$ 152,128.52	\$ 16,058.35	\$ 168,186.87
56						

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Proforma Adjusted Revenue Requirement
For Twelve Months Ended December 31, 2021**

Line	Main	GL#	Description	Revenue Requirement	Proforma Adjustment	Adjusted Revenue Requirement
57	582	5820001	Station Expense-Labor	\$ 16,568.41	\$ 3,249.83	\$ 19,818.24
58	582	5820002	Station Expense-Benefits	\$ 10,864.75	\$ -	\$ 10,864.75
59	582	5820004	Station Expense-Transportation	\$ 1,074.11	\$ -	\$ 1,074.11
60			Total Station Expense	\$ 28,507.27	\$ 3,249.83	\$ 31,757.10
61						
62	583	5830000	Overhead Line Expense	\$ 914.34	\$ -	\$ 914.34
63						
64	586	5860000	Meter Expense	\$ 34,405.37	\$ -	\$ 34,405.37
65	586	5860001	Meter Expense-Labor	\$ 10,499.71	\$ 2,059.48	\$ 12,559.19
66	586	5860002	Meter Expense-Benefits	\$ 7,648.02	\$ -	\$ 7,648.02
67	586	5860004	Meter Expense-Transportation	\$ 711.17	\$ -	\$ 711.17
68			Total Meter Expense	\$ 53,264.27	\$ 2,059.48	\$ 55,323.75
69						
70	587	5870001	Customer Install Expense-Labor	\$ 16,568.41	\$ 3,249.83	\$ 19,818.24
71	587	5870002	Customer Install Expense-Benefits	\$ 10,864.75	\$ -	\$ 10,864.75
72	587	5870004	Customer Install Expense-Transportation	\$ 1,074.11	\$ -	\$ 1,074.11
73			Total Customer Install Expense	\$ 28,507.27	\$ 3,249.83	\$ 31,757.10
74						
75	588	5880000	Miscellaneous Distribution Expense	\$ 13,531.81	\$ -	\$ 13,531.81
76	588	5880001	Miscellaneous Distribution Expense-Labor	\$ 176,023.27	\$ 34,526.30	\$ 210,549.57
77	588	5880002	Miscellaneous Distribution Expense-Benefits	\$ 133,689.88	\$ -	\$ 133,689.88
78			Total Miscellaneous Distribution Expense	\$ 323,244.96	\$ 34,526.30	\$ 357,771.26
79						
80	590	5900001	Maintenance Superv & Engineering-Labor	\$ 61,958.11	\$ 12,152.85	\$ 74,110.96
81	590	5900002	Maintenance Superv & Engineering-Benefits	\$ 41,898.58	\$ -	\$ 41,898.58
82	590	5900004	Maintenance Superv & Engineering-Transportation	\$ 4,030.23	\$ -	\$ 4,030.23
83			Total Maintenance Superv & Engineering	\$ 107,886.92	\$ 12,152.85	\$ 120,039.77
84						
85	591	5910000	On Call Pay -Primary/Secondary	\$ 13,345.50	\$ -	\$ 13,345.50
86	591	5910002	On Call Pay-Primary/Secondary Benefits	\$ 8,985.27	\$ -	\$ 8,985.27
87			Total On Call Pay	\$ 22,330.77	\$ -	\$ 22,330.77
88						
89	592	5920000	Maintenance Station Equipment	\$ 2,006.40	\$ -	\$ 2,006.40
90	592	5920001	Maintenance Station Equipment-Labor	\$ 8,344.40	\$ 1,636.72	\$ 9,981.12
91	592	5920002	Maintenance Station Equipment-Benefits	\$ 811.02	\$ -	\$ 811.02
92	592	5920004	Maintenance Station Equipment-Transportation	\$ 382.17	\$ -	\$ 382.17
93			Total Maintenance Station Equipment	\$ 11,543.99	\$ 1,636.72	\$ 13,180.71
94						
95	593	5930000	Maintenance Overhead Lines	\$ 235,624.28	\$ -	\$ 235,624.28
96	593	5930001	Maintenance Overhead Lines-Labor	\$ 56,368.31	\$ 11,056.43	\$ 67,424.74
97	593	5930002	Maintenance Overhead Lines-Benefits	\$ 41,866.51	\$ -	\$ 41,866.51
98	593	5930004	Maintenance Overhead Lines-Transportation	\$ 3,969.62	\$ -	\$ 3,969.62
99			Total Maintenance Overhead Lines	\$ 337,828.72	\$ 11,056.43	\$ 348,885.15
100						
101	594	5940000	Maintenance Underground Lines	\$ 48,534.05	\$ -	\$ 48,534.05
102	594	5940001	Maintenance Underground Lines-Labor	\$ 31,795.23	\$ 6,236.51	\$ 38,031.74
103	594	5940002	Maintenance Underground Lines-Benefits	\$ 10,915.99	\$ -	\$ 10,915.99
104	594	5940004	Maintenance Underground Lines-Transportation	\$ 2,079.73	\$ -	\$ 2,079.73
105			Total Maintenance Underground Lines	\$ 93,325.00	\$ 6,236.51	\$ 99,561.51
106						
107	595	5950000	Maintenance Line Transformers	\$ 35,058.11	\$ -	\$ 35,058.11
108	595	5950001	Maintenance Line Transformers-Labor	\$ 769.79	\$ 150.99	\$ 920.78
109	595	5950002	Maintenance Line Transformers-Benefits	\$ 540.47	\$ -	\$ 540.47
110	595	5950004	Maintenance Line Transformers-Transportation	\$ 51.99	\$ -	\$ 51.99
111			Total Maintenance Line Transformers	\$ 36,420.36	\$ 150.99	\$ 36,571.35
112						
113	596	5961000	Maintenance Street Lights	\$ 26,291.28	\$ -	\$ 26,291.28

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Proforma Adjusted Revenue Requirement
For Twelve Months Ended December 31, 2021**

Line	Main	GL#	Description	Revenue Requirement	Proforma Adjustment	Adjusted Revenue Requirement
114	596	5961001	Maintenance Street Lights-Labor	\$ 20,865.21	\$ 4,092.63	\$ 24,957.84
115	596	5961002	Maintenance Street Lights-Benefits	\$ 9,460.70	\$ -	\$ 9,460.70
116	596	5961004	Maintenance Street Lights-Transportation	\$ 1,007.45	\$ -	\$ 1,007.45
117			Total Maintenance Street Lights	\$ 57,624.64	\$ 4,092.63	\$ 61,717.27
118						
119	597	5970000	Maintenance-Meters	\$ 11,439.07	\$ -	\$ 11,439.07
120	597	5970001	Maintenance-Meters-Labor	\$ 38,214.18	\$ 7,495.57	\$ 45,709.75
121	597	5970002	Maintenance-Meters-Benefits	\$ 24,422.26	\$ -	\$ 24,422.26
122	597	5970004	Maintenance-Meters-Transportation	\$ 2,604.67	\$ -	\$ 2,604.67
123			Total Maintenance-Meters	\$ 76,680.18	\$ 7,495.57	\$ 84,175.75
124						
125	598	5980000	Maintenance Misc Distribution Plant	\$ 374.18	\$ -	\$ 374.18
126	598	5980001	Maintenance Misc Distribution Plant-Labor	\$ 64,648.02	\$ 12,680.46	\$ 77,328.48
127	598	5980002	Maintenance Misc Distribution Plant-Benefits	\$ (12,135.24)	\$ -	\$ (12,135.24)
128	598	5980004	Maintenance Misc Distribution Plant-Transportation	\$ 2,327.63	\$ -	\$ 2,327.63
129			Total Maintenance Misc Distribution Plant	\$ 55,214.59	\$ 12,680.46	\$ 67,895.05
130						
131	901	9010001	Supervision Customer Accounts-Labor	\$ 25,333.87	\$ 4,969.14	\$ 30,303.01
132	901	9010002	Supervision Customer Accounts-Benefits	\$ 17,877.96	\$ -	\$ 17,877.96
133	901	9010004	Supervision Customer Accounts-Transportation	\$ 1,649.98	\$ -	\$ 1,649.98
134			Total Supervision Customer Accounts	\$ 44,861.81	\$ 4,969.14	\$ 49,830.95
135						
136	902	9020000	Meter Reading Expense	\$ -	\$ -	\$ -
137	902	9020001	Meter Reading Expense-Labor	\$ 401.53	\$ 78.76	\$ 480.29
138	902	9020002	Meter Reading Expense-Benefits	\$ 235.41	\$ -	\$ 235.41
139	902	9020004	Meter Reading Expense-Transportation	\$ 9.99	\$ -	\$ 9.99
140			Total Meter Reading Expense	\$ 646.93	\$ 78.76	\$ 725.69
141						
142	903	9030000	Customer Records & Collections Expense	\$ 234,973.87	\$ -	\$ 234,973.87
143	903	9030001	Customer Records & Collections Expense-Labor	\$ 234,866.65	\$ 46,068.21	\$ 280,934.86
144	903	9030002	Customer Records & Collections Expense-Benefits	\$ 160,867.83	\$ -	\$ 160,867.83
145	903	9031000	Postage	\$ 2,241.54	\$ -	\$ 2,241.54
146	903	9032000	Customer Records Cash Over/Short	\$ 0.14	\$ -	\$ 0.14
147	903	9033000	Customer Records - Bank Service Fees	\$ 11,415.48	\$ -	\$ 11,415.48
148	903	9034000	Customer Records - Credit Card Fees	\$ 88,909.57	\$ -	\$ 88,909.57
149			Total Customer Records	\$ 733,275.08	\$ 46,068.21	\$ 779,343.29
150						
151	910	9100000	Customer Assistance Expense	\$ -	\$ -	\$ -
152						
153	911	9110000	Informational Advertising Expense	\$ -	\$ -	\$ -
154						
155	920	9200000	Administrative & General	\$ 216,021.00	\$ 83,007.00	\$ 299,028.00
156	920	9200001	Administrative & General-Salaries	\$ 269,658.88	\$ 52,892.57	\$ 322,551.45
157	920	9200002	Administrative & General-Benefits	\$ 222,030.83	\$ -	\$ 222,030.83
158			Total Administrative & General	\$ 707,710.71	\$ 135,899.57	\$ 843,610.28
159						
160	921	9210000	Office Supplies And Expenses	\$ 41,439.87	\$ -	\$ 41,439.87
161						
162	923	9230000	Consulting Fees	\$ 230,607.38	\$ -	\$ 230,607.38
163	923	9230001	Investment Management Expense	\$ 14,592.24	\$ -	\$ 14,592.24
164			Total Consulting & Investment Management Fees	\$ 245,199.62	\$ -	\$ 245,199.62
165						
166	924	9240000	Property Insurance	\$ 12,349.32	\$ -	\$ 12,349.32
167						
168	925	9250000	Injuries & Damages Expense	\$ 101,105.67	\$ -	\$ 101,105.67
169	925	9250001	Injuries & Damages Expense-Labor	\$ 4,425.00	\$ 867.95	\$ 5,292.95
170	925	9250002	Injuries & Damages Expense-Benefits	\$ 4,756.01	\$ -	\$ 4,756.01

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Proforma Adjusted Revenue Requirement
For Twelve Months Ended December 31, 2021**

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Line	Main	GL#	Description	Revenue Requirement	Proforma Adjustment	Adjusted Revenue Requirement
171	925	9250004	Injuries & Damages Expense-Transportation	\$ 253.85	\$ -	\$ 253.85
172			Total Injuries & Damages Expense	\$ 110,540.53	\$ 867.95	\$ 111,408.48
173						
174	926	9260000	Employee Pension & Benefits Expense	\$ -	\$ -	\$ -
175	408	4081000	Taxes-Employers FICA	\$ -	\$ -	\$ -
176	408	4082000	State Retirement-Employers	\$ -	\$ -	\$ -
177			Total Pension, Benefits and Taxes	\$ -	\$ -	\$ -
178						
179	930	9301000	Institutional Advertising Expense	\$ 70,270.25	\$ -	\$ 70,270.25
180	930	9302000	Miscellaneous General Expense	\$ 44,546.75	\$ -	\$ 44,546.75
181			Total Institutional And Miscellaneous	\$ 114,817.00	\$ -	\$ 114,817.00
182						
183	932	9320000	Maintenance Of General Plant	\$ 49,167.28	\$ -	\$ 49,167.28
184	932	9320001	Maintenance Of General Plant-Labor	\$ 1,439.25	\$ 282.30	\$ 1,721.55
185	932	9320002	Maintenance Of General Plant-Benefits	\$ 901.04	\$ -	\$ 901.04
186	932	9320004	Maintenance Of General Plant-Transportation	\$ 40.92	\$ -	\$ 40.92
187			Total Maintenance Of General Plant	\$ 51,548.49	\$ 282.30	\$ 51,830.79
188						
189			Inflation Adjustment through July 31, 2023	\$ -	\$ 240,410.75	\$ 240,410.75
190						
191			Total Operating Expenses	\$ 14,781,547.07	\$ 6,103,131.52	\$ 20,884,678.59
192						
193			Rate Base Calculation:			
194			Electric Plant In Service	\$ 32,309,740.81		\$ 32,309,740.81
195			New Campus Substation		\$ 2,952,678.63	\$ 2,952,678.63
196			New Laydown Yard		\$ 621,659.75	\$ 621,659.75
197			New SCADA		\$ 214,172.80	\$ 214,172.80
198			New Underground Conversions		\$ 1,315,807.90	\$ 1,315,807.90
199			New Warehouse		\$ 1,114,078.88	\$ 1,114,078.88
200			Adjusted Electric Plant In Service	\$ 32,309,740.81	\$ 6,218,397.96	\$ 38,528,138.77
201						
202			Accumulated Depreciation (July 31, 2023)	\$ (15,994,562.41)	\$ (1,542,042.36)	\$ (17,536,604.77)
203			New Campus Substation (July 31, 2023)		\$ (96,931.37)	\$ (96,931.37)
204			Laydown Yard (July 31, 2023)		\$ (15,972.76)	\$ (15,972.76)
205			SCADA (July 31, 2023)		\$ (16,668.14)	\$ (16,668.14)
206			Underground Conversions (July 31, 2023)		\$ (26,853.22)	\$ (26,853.22)
207			Warehouse (July 31, 2023)		\$ (28,624.84)	\$ (28,624.84)
208			Adjusted Accumulated Depreciation	\$ (15,994,562.41)	\$ (1,727,092.69)	\$ (17,721,655.10)
209						
210			Net Plant in Service	\$ 16,315,178.40	\$ 4,491,305.26	\$ 20,806,483.66
211			Plant Materials and Operating Supplies	\$ 586,437.48	\$ -	\$ 586,437.48
212			Investments - Blue Ridge Electric Membership Corporation	\$ 6,563,578.86	\$ -	\$ 6,563,578.86
213			Investments - North Carolina Electric Membership Corporation	\$ 417,470.54	\$ -	\$ 417,470.54
214			Investments - Meridian Cooperative	\$ 9,372.45	\$ -	\$ 9,372.45
215			Regulatory Asset (Payne Branch Dam)	\$ 137,770.70	\$ -	\$ 137,770.70
216			Regulatory Asset (Unamortized Old Substation)	\$ 120,526.18	\$ (40,175.39)	\$ 80,350.79
217			Regulatory Asset (New Substation)	\$ -	\$ 215,585.11	\$ 215,585.11
218			Regulatory Asset (UBIT)	\$ 886,312.27	\$ (201,115.70)	\$ 685,196.57
219			Prepayments	\$ 81,592.79	\$ -	\$ 81,592.79
220			Customer Deposits	\$ (235,508.47)	\$ -	\$ (235,508.47)
221			Cash Working Capital	\$ 846,619.66	\$ 332,393.52	\$ 1,179,013.18
222			Total Rate Base	\$ 25,729,350.86	\$ 4,797,992.80	\$ 30,527,343.67
223			Rate of Return (Grossed Up for UBIT)	7.007%	7.007%	7.007%
224			Return on Rate Base	\$ 1,802,855.62	\$ 336,195.36	\$ 2,139,050.97
225						
226			Net Revenue Requirement	\$ 16,327,105.28	\$ 6,439,326.88	\$ 22,766,432.15
227	904	9040000	Plus Uncollectible Accounts	\$ 45,109.09	\$ 6,396.70	\$ 51,505.79

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Proforma Adjusted Revenue Requirement
For Twelve Months Ended December 31, 2021**

Line	Main	GL#	Description	Revenue Requirement	Proforma Adjustment	Adjusted Revenue Requirement
228	928	9280000	Regulatory Commission Expense	\$ 27,224.49	\$ 8,371.12	\$ 35,595.61
229			Unrelated Business Income Tax	\$	\$ 368,009.82	\$ 368,009.82
230			Net Revenue Requirement to be Recovered from Rates	\$ 16,399,438.86	\$ 6,822,104.52	\$ 23,221,543.38
231						
232			<u>Retail Rate Revenues:</u>			
233	440		Residential	\$ 5,845,335.80	\$ 814,537.94	\$ 6,659,873.74
234	442		Commercial	\$ 6,655,168.74	\$ 1,425,689.87	\$ 8,080,858.61
235	445		ASU Campus	\$ 3,486,675.37	\$ 138,330.35	\$ 3,625,005.72
236	444		Security Lighting (Adjustment to Reflect O&M Charges Only)	\$ 300,006.68	\$ (68,950.04)	\$ 231,056.64
237			Total Rate Revenues	\$ 16,287,186.59	\$ 2,309,608.12	\$ 18,596,794.71
238						
239			<u>Revenue Deficiency at Current Rates</u>			
240			Base Rate Revenue Increase			\$ 4,624,748.67
241			Percent of Base Rate Increase			24.87%
242						
243			PPA Rate Revenue Reduction			\$ (2,026,355.46)
244			Net Rate Revenue Increase			\$ 2,598,393.20
245			Net Rate Revenue Percent Increase			13.97%

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
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Allocation Factors

Customer (c), Demand (d), Energy (e)

Production (p), Transmission (t), Distribution (d), Customer (c)

SPECIFIC ALLOCATOR:								
1.01	Residential	c c	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000
1.02	Commercial General	c c	1.000000	0.000000	1.000000	0.000000	0.000000	0.000000
1.03	Commercial Demand	c c	1.000000	0.000000	0.000000	1.000000	0.000000	0.000000
1.04	ASU Campus	c c	1.000000	0.000000	0.000000	0.000000	1.000000	0.000000
1.05	Lighting	c c	1.000000	0.000000	0.000000	0.000000	0.000000	1.000000
ENERGY ALLOCATOR:								
	Usage in kWh		205,526,911	61,988,218	23,255,764	72,850,193	44,774,302	2,658,434
2.01	Allocation %	e p	100.00%	30.16%	11.32%	35.45%	21.79%	1.29%
2.02	Allocation % (Excluding Lighting)		100.00%	30.56%	11.46%	35.91%	22.07%	0.00%
	Residential and Commercial Usage Only		158,094,175	61,988,218	23,255,764	72,850,193		
2.03	Allocation %	e p	100.00%	39.21%	14.71%	46.08%		
DEMAND ALLOCATORS								
3.01	DEC 20CP Peak Demands - Average kW		30,313	6,879	3,735	11,316	8,383	-
	Allocation %	d t	100.00%	22.69%	12.32%	37.33%	27.66%	0.00%
3.02	DEC Transmission Peak Demands - Average kW		28,835	8,359	3,603	10,782	6,090	-
	Allocation %	d t	100.00%	28.99%	12.50%	37.39%	21.12%	0.00%
3.03	BREMCO Distribution Peak Demands - Average kW		29,993	9,579	3,726	11,117	5,571	-
	Allocation %	d t	100.00%	31.94%	12.42%	37.07%	18.57%	0.00%
3.04	CPP CP Peak Demands - Average kW		28,533	8,234	3,574	10,667	6,058	-
	Allocation %	d p	100.00%	28.86%	12.53%	37.39%	21.23%	0.00%
3.05	NRLP Distribution Peak Demands - Average kW		30,403	8,886	3,966	11,433	6,118	-
	Allocation %	d d	100.00%	29.23%	13.05%	37.60%	20.12%	0.00%
3.06	Customer Class CP Peak Demands - Average kW		34,554	10,544	4,312	11,387	7,703	607
	Allocation %	d d	100.00%	30.51%	12.48%	32.96%	22.29%	1.76%
CUSTOMER ALLOCATORS:								
4.01	Average Number of Customers		8,972	7,142	1,465	274	1	90
	Allocation %	c c	100.00%	79.60%	16.33%	3.05%	0.01%	1.00%
4.02	Weighted Cust (excl. lighting)/Energy/NRLP Dist. Peak Demand Alloc [1]	c c	100.00%	42.36%	13.51%	28.55%	15.58%	0.00%
4.03	Weighted Cust (excl. lighting)/NRLP Dist. Peak Demand Alloc [2]	c c	100.00%	67.62%	15.63%	11.72%	5.04%	0.00%
4.04	Number of Customers Excluding Lighting Allocation %	c c	100.00%	80.41%	16.49%	3.09%	0.01%	0.00%
4.05	Weighted Cust/Cust Class CP Peak Demand Alloc [3]	c c	100.00%	67.33%	15.36%	10.53%	5.58%	1.19%

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
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Notes:

[1] 4.02 - Weighted Customer Allocation:
50.00% of NRLP Dist Peak Allocation 3.05
25.00% of Customer Allocation 4.04
25.00% of Energy Allocation 2.02

[2] 4.03 - Weighted Customer Allocation w/o Lighting:
25.00% of NRLP Dist Peak Allocation 3.05
75.00% of Customer Allocation 4.04

[3] 4.05 - Weighted Customer Allocation w/ Lighting:
25.00% of Cust Class CP Allocation 3.06
75.00% of Customer Allocation 4.01

Current Base Rate Revenues

1.01	Energy Charges		\$ 13,381,137	\$ 5,581,667	\$ 2,015,879	\$ 3,950,083	\$ 1,833,508	\$ -
1.02	Demand Charges		\$ 2,541,172	\$ -	\$ -	\$ 1,732,317	\$ 808,855	\$ -
1.03	Customer Charges (Lighting includes O&M and purchased power only)		\$ 2,674,486	\$ 1,078,207	\$ 306,209	\$ 76,371	\$ 982,643	\$ 231,057
1.04	Total Revenues from Current Rates		\$ 18,596,795	\$ 6,659,874	\$ 2,322,088	\$ 5,758,770	\$ 3,625,006	\$ 231,057
REV1	Total Revenue Allocator	c c	100.00%	35.81%	12.49%	30.97%	19.49%	1.24%
REV2	Total Revenue Allocator Excluding ASU	c c	100.00%	44.48%	15.51%	38.46%	0.00%	1.54%
REV3	Total Revenue Allocator Excluding Lighting	c c	100.00%	36.26%	12.64%	31.36%	19.74%	0.00%

Other Operating Income

2.00	Revenue Job & Contract ASU	c c	REV3 \$ 127,573	\$ 46,261	\$ 16,130	\$ 40,002	\$ 25,180	\$ -
2.01	Rev Job&Con TOB	c c	REV3 \$ 4,032	\$ 1,462	\$ 510	\$ 1,264	\$ 796	\$ -
2.02	Int Inc Other	c c	REV3 \$ 1,480	\$ 537	\$ 187	\$ 464	\$ 292	\$ -
2.03	Misc Non-Operating Income	c c	REV3 \$ 2	\$ 1	\$ 0	\$ 1	\$ 0	\$ -
2.04	Misc Svc Revenue-Conn & Reconnect Chrgs	c c	REV3 \$ 44,466	\$ 16,125	\$ 5,622	\$ 13,943	\$ 8,777	\$ -
2.05	Rent Electric Property	c c	REV3 \$ 17,683	\$ 6,412	\$ 2,236	\$ 5,545	\$ 3,490	\$ -
2.06	Rent Electric Property-Fiber	c c	REV3 \$ 9,809	\$ 3,557	\$ 1,240	\$ 3,076	\$ 1,936	\$ -
2.07	Oth Elect Revenue	c c	REV3 \$ 52,251	\$ 18,948	\$ 6,606	\$ 16,384	\$ 10,313	\$ -
2.08	Total Other Operating Income		Sum \$ 257,297	\$ 93,302	\$ 32,532	\$ 80,678	\$ 50,785	\$ -
2.09	Total Revenues		Sum \$ 18,854,092	\$ 6,753,176	\$ 2,354,620	\$ 5,839,449	\$ 3,675,791	\$ 231,057

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

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Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
Purchased Power								
3.00	CPP Energy Expense	e p 2.01	\$ 8,811,967	\$ 2,657,745	\$ 997,091	\$ 3,123,452	\$ 1,919,698	\$ 113,980
3.01	CPP PEAK Prepaid Gas Discount	e p 2.01	\$ (422,092)	\$ (127,305)	\$ (47,760)	\$ (149,613)	\$ (91,953)	\$ (5,460)
3.02	CPP Demand Expense	d p 3.04	\$ 5,171,700	\$ 1,492,417	\$ 647,789	\$ 1,933,444	\$ 1,098,050	\$ -
3.03	CPP Generation Credit (Assigned to ASU as "Demand" & "Production")	d p 1.04	\$ (796,500)	\$ -	\$ -	\$ -	\$ (796,500)	\$ -
3.04	DEC Transmission Expense	d t 3.02	\$ 686,169	\$ 198,926	\$ 85,738	\$ 256,577	\$ 144,928	\$ -
3.05	BREMCO Distribution Expense	d t 3.03	\$ 1,404,233	\$ 448,466	\$ 174,462	\$ 520,485	\$ 260,820	\$ -
3.06	BREMCO DEC 20CP Losses True Up	d t 3.01	\$ 74,612	\$ 16,932	\$ 9,193	\$ 27,853	\$ 20,634	\$ -
3.07	Avoided Costs for Retail Customer Renewable Energy	e p 2.01	\$ 10,018	\$ 3,021	\$ 1,134	\$ 3,551	\$ 2,182	\$ 130
3.08	Total Purchased Power Expense	Sum	\$ 14,940,108	\$ 4,690,202	\$ 1,867,647	\$ 5,715,750	\$ 2,557,860	\$ 108,650
Total Purchased Power Expense			\$ 14,940,108	\$ 4,690,202	\$ 1,867,647	\$ 5,715,750	\$ 2,557,860	\$ 108,650
	Customer-Related	c	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Energy-Related	e	\$ 8,399,893	\$ 2,533,461	\$ 950,464	\$ 2,977,390	\$ 1,829,928	\$ 108,650
	Demand-Related	d	\$ 6,540,215	\$ 2,156,741	\$ 917,182	\$ 2,738,359	\$ 727,932	\$ -
Total Purchased Power Expense			\$ 14,940,108	\$ 4,690,202	\$ 1,867,647	\$ 5,715,750	\$ 2,557,860	\$ 108,650
	Customer-Related	c	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Distribution-Related	d	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Transmission-Related	t	\$ 2,165,014	\$ 664,323	\$ 269,393	\$ 804,915	\$ 426,383	\$ -
	Production-Related	p	\$ 12,775,094	\$ 4,025,878	\$ 1,598,253	\$ 4,910,835	\$ 2,131,477	\$ 108,650
Gross Income								
4.00	Revenues less Purchased Power	Sum	\$ 3,913,984	\$ 2,062,974	\$ 486,973	\$ 123,699	\$ 1,117,931	\$ 122,406

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

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Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
Electric Operating & Maintenance Expenses								
<u>Expense Job & Contract ASU</u>								
5.00	Expense Job & Contract ASU	c c REV3	\$ 87,871	\$ 31,864	\$ 11,110	\$ 27,553	\$ 17,344	\$ -
5.01	Expense Job & Contract ASU-Labor	c c REV3	\$ 62,969	\$ 22,834	\$ 7,962	\$ 19,745	\$ 12,429	\$ -
5.02	Expense Job & Contract ASU-Benefits	c c REV3	\$ 40,457	\$ 14,671	\$ 5,115	\$ 12,686	\$ 7,985	\$ -
5.03	Expense Job & Contract ASU-Transportation	c c REV3	\$ 2,868	\$ 1,040	\$ 363	\$ 899	\$ 566	\$ -
5.04	Expense Job & Contract TOB-Labor	c c REV3	\$ 2,460	\$ 892	\$ 311	\$ 771	\$ 485	\$ -
5.05	Expense Job & Contract TOB-Benefits	c c REV3	\$ 1,427	\$ 518	\$ 180	\$ 447	\$ 282	\$ -
5.06	Expense Job & Contract TOB-Transportation	c c REV3	\$ 148	\$ 54	\$ 19	\$ 46	\$ 29	\$ -
5.07	Expense Job & Contract Camp Broadstone	c c REV3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5.08	Expense Job & Contract Camp Broadstone-Benefits	c c REV3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5.09	Expense Job & Contract Camp Broadstone-Transportation	c c REV3	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
5.10	Total Expense Job & Contract ASU	Sum	\$ 198,200	\$ 71,872	\$ 25,060	\$ 62,148	\$ 39,121	\$ -
<u>Operations Superv & Engineering</u>								
6.00	Operations Superv & Engineering-Labor	d d 3.06	\$ 97,928	\$ 29,882	\$ 12,222	\$ 32,272	\$ 21,832	\$ 1,720
6.01	Operations Superv & Engineering-Benefits	d d 3.06	\$ 64,778	\$ 19,766	\$ 8,084	\$ 21,348	\$ 14,441	\$ 1,138
6.02	Operations Superv & Engineering-Transportation	d d 3.06	\$ 5,482	\$ 1,673	\$ 684	\$ 1,806	\$ 1,222	\$ 96
6.03	Total Operations Superv & Engineering	Sum	\$ 168,187	\$ 51,321	\$ 20,990	\$ 55,427	\$ 37,495	\$ 2,954
<u>Station Expense</u>								
7.00	Station Expense-Labor	d d 3.06	\$ 19,818	\$ 6,047	\$ 2,473	\$ 6,531	\$ 4,418	\$ 348
7.01	Station Expense-Benefits	d d 3.06	\$ 10,865	\$ 3,315	\$ 1,356	\$ 3,581	\$ 2,422	\$ 191
7.02	Station Expense-Transportation	d d 3.06	\$ 1,074	\$ 328	\$ 134	\$ 354	\$ 239	\$ 19
7.03	Total Station Expense	Sum	\$ 31,757	\$ 9,690	\$ 3,963	\$ 10,466	\$ 7,080	\$ 558
8.00	Overhead Line Expense	d d 3.06	\$ 914	\$ 279	\$ 114	\$ 301	\$ 204	\$ 16
<u>Meter Expense</u>								
9.00	Meter Expense	c c 4.03	\$ 34,405	\$ 23,263	\$ 5,378	\$ 4,031	\$ 1,734	\$ -
9.01	Meter Expense-Labor	c c 4.03	\$ 12,559	\$ 8,492	\$ 1,963	\$ 1,471	\$ 633	\$ -
9.02	Meter Expense-Benefits	c c 4.03	\$ 7,648	\$ 5,171	\$ 1,195	\$ 896	\$ 385	\$ -
9.03	Meter Expense-Transportation	c c 4.03	\$ 711	\$ 481	\$ 111	\$ 83	\$ 36	\$ -
9.04	Total Meter Expense	Sum	\$ 55,324	\$ 37,407	\$ 8,647	\$ 6,481	\$ 2,788	\$ -

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
<u>Customer Install Expense</u>								
10.00	Customer Install Expense-Labor	c c 4.03	\$ 19,818	\$ 13,400	\$ 3,098	\$ 2,322	\$ 999	\$ -
10.01	Customer Install Expense-Benefits	c c 4.03	\$ 10,865	\$ 7,346	\$ 1,698	\$ 1,273	\$ 548	\$ -
10.02	Customer Install Expense-Transportation	c c 4.03	\$ 1,074	\$ 726	\$ 168	\$ 126	\$ 54	\$ -
10.03	Total Customer Install Expense	Sum	\$ 31,757	\$ 21,473	\$ 4,964	\$ 3,720	\$ 1,600	\$ -
<u>Miscellaneous Distribution Expense</u>								
11.00	Miscellaneous Distribution Expense	d d 3.06	\$ 13,532	\$ 4,129	\$ 1,689	\$ 4,459	\$ 3,017	\$ 238
11.01	Miscellaneous Distribution Expense-Labor	d d 3.06	\$ 210,550	\$ 64,247	\$ 26,277	\$ 69,387	\$ 46,939	\$ 3,699
11.02	Miscellaneous Distribution Expense-Benefits	d d 3.06	\$ 133,690	\$ 40,794	\$ 16,685	\$ 44,058	\$ 29,804	\$ 2,348
11.03	Total Miscellaneous Distribution Expense	Sum	\$ 357,771	\$ 109,170	\$ 44,651	\$ 117,905	\$ 79,760	\$ 6,285
<u>Maintenance Superv & Engineering</u>								
12.00	Maintenance Superv & Engineering-Labor	d d 3.06	\$ 74,111	\$ 22,614	\$ 9,249	\$ 24,424	\$ 16,522	\$ 1,302
12.01	Maintenance Superv & Engineering-Benefits	d d 3.06	\$ 41,899	\$ 12,785	\$ 5,229	\$ 13,808	\$ 9,341	\$ 736
12.02	Maintenance Superv & Engineering-Transportation	d d 3.06	\$ 4,030	\$ 1,230	\$ 503	\$ 1,328	\$ 898	\$ 71
12.03	Total Maintenance Superv & Engineering	Sum	\$ 120,040	\$ 36,629	\$ 14,981	\$ 39,560	\$ 26,761	\$ 2,109
<u>On Call Pay</u>								
13.00	On Call Pay -Primary/Secondary	d d 3.06	\$ 13,346	\$ 4,072	\$ 1,666	\$ 4,398	\$ 2,975	\$ 234
13.01	On Call Pay-Primary/Secondary Benefits	d d 3.06	\$ 8,985	\$ 2,742	\$ 1,121	\$ 2,961	\$ 2,003	\$ 158
13.02	Total On Call Pay	Sum	\$ 22,331	\$ 6,814	\$ 2,787	\$ 7,359	\$ 4,978	\$ 392
<u>Maintenance Station Equipment</u>								
14.00	Maintenance Station Equipment	d d 3.06	\$ 2,006	\$ 612	\$ 250	\$ 661	\$ 447	\$ 35
14.01	Maintenance Station Equipment-Labor	d d 3.06	\$ 9,981	\$ 3,046	\$ 1,246	\$ 3,289	\$ 2,225	\$ 175
14.02	Maintenance Station Equipment-Benefits	d d 3.06	\$ 811	\$ 247	\$ 101	\$ 267	\$ 181	\$ 14
14.03	Maintenance Station Equipment-Transportation	d d 3.06	\$ 382	\$ 117	\$ 48	\$ 126	\$ 85	\$ 7
14.04	Total Maintenance Station Equipment	Sum	\$ 13,181	\$ 4,022	\$ 1,645	\$ 4,344	\$ 2,938	\$ 232
<u>Maintenance Overhead Lines</u>								
15.00	Maintenance Overhead Lines	d d 3.06	\$ 235,624	\$ 71,898	\$ 29,407	\$ 77,651	\$ 52,529	\$ 4,139
15.01	Maintenance Overhead Lines-Labor	d d 3.06	\$ 67,425	\$ 20,574	\$ 8,415	\$ 22,220	\$ 15,031	\$ 1,184
15.02	Maintenance Overhead Lines-Benefits	d d 3.06	\$ 41,867	\$ 12,775	\$ 5,225	\$ 13,797	\$ 9,334	\$ 735
15.03	Maintenance Overhead Lines-Transportation	d d 3.06	\$ 3,970	\$ 1,211	\$ 495	\$ 1,308	\$ 885	\$ 70
15.04	Total Maintenance Overhead Lines	Sum	\$ 348,885	\$ 106,459	\$ 43,542	\$ 114,976	\$ 77,779	\$ 6,129

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021

Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
<u>Maintenance Underground Lines</u>								
16.00	Maintenance Underground Lines	d d 3.06	\$ 48,534	\$ 14,810	\$ 6,057	\$ 15,995	\$ 10,820	\$ 853
16.01	Maintenance Underground Lines-Labor	d d 3.06	\$ 38,032	\$ 11,605	\$ 4,747	\$ 12,533	\$ 8,479	\$ 668
16.02	Maintenance Underground Lines-Benefits	d d 3.06	\$ 10,916	\$ 3,331	\$ 1,362	\$ 3,597	\$ 2,434	\$ 192
16.03	Maintenance Underground Lines-Transportation	d d 3.06	\$ 2,080	\$ 635	\$ 260	\$ 685	\$ 464	\$ 37
16.04	Total Maintenance Underground Lines	Sum	\$ 99,562	\$ 30,380	\$ 12,426	\$ 32,811	\$ 22,196	\$ 1,749
<u>Maintenance Line Transformers</u>								
17.00	Maintenance Line Transformers	d d 3.06	\$ 35,058	\$ 10,698	\$ 4,375	\$ 11,554	\$ 7,816	\$ 616
17.01	Maintenance Line Transformers-Labor	d d 3.06	\$ 921	\$ 281	\$ 115	\$ 303	\$ 205	\$ 16
17.02	Maintenance Line Transformers-Benefits	d d 3.06	\$ 540	\$ 165	\$ 67	\$ 178	\$ 120	\$ 9
17.03	Maintenance Line Transformers-Transportation	d d 3.06	\$ 52	\$ 16	\$ 6	\$ 17	\$ 12	\$ 1
17.04	Total Maintenance Line Transformers	Sum	\$ 36,571	\$ 11,159	\$ 4,564	\$ 12,052	\$ 8,153	\$ 642
<u>Maintenance Street Lights</u>								
18.00	Maintenance Street Lights	c c 1.05	\$ 26,291	\$ -	\$ -	\$ -	\$ -	\$ 26,291
18.01	Maintenance Street Lights-Labor	c c 1.05	\$ 24,958	\$ -	\$ -	\$ -	\$ -	\$ 24,958
18.02	Maintenance Street Lights-Benefits	c c 1.05	\$ 9,461	\$ -	\$ -	\$ -	\$ -	\$ 9,461
18.03	Maintenance Street Lights-Transportation	c c 1.05	\$ 1,007	\$ -	\$ -	\$ -	\$ -	\$ 1,007
18.04	Total Maintenance Street Lights	Sum	\$ 61,717	\$ -	\$ -	\$ -	\$ -	\$ 61,717
<u>Maintenance-Meters</u>								
19.00	Maintenance-Meters	e c 4.03	\$ 11,439	\$ 7,735	\$ 1,788	\$ 1,340	\$ 576	\$ -
19.01	Maintenance-Meters-Labor	e c 4.03	\$ 45,710	\$ 30,907	\$ 7,145	\$ 5,355	\$ 2,303	\$ -
19.02	Maintenance-Meters-Benefits	e c 4.03	\$ 24,422	\$ 16,513	\$ 3,817	\$ 2,861	\$ 1,231	\$ -
19.03	Maintenance-Meters-Transportation	e c 4.03	\$ 2,605	\$ 1,761	\$ 407	\$ 305	\$ 131	\$ -
19.04	Total Maintenance-Meters	Sum	\$ 84,176	\$ 56,916	\$ 13,157	\$ 9,862	\$ 4,242	\$ -
<u>Maintenance Misc Distribution Plant</u>								
20.00	Maintenance Misc Distribution Plant	d d 3.06	\$ 374	\$ 114	\$ 47	\$ 123	\$ 83	\$ 7
20.01	Maintenance Misc Distribution Plant-Labor	d d 3.06	\$ 77,328	\$ 23,596	\$ 9,651	\$ 25,484	\$ 17,239	\$ 1,358
20.02	Maintenance Misc Distribution Plant-Benefits	d d 3.06	\$ (12,135)	\$ (3,703)	\$ (1,515)	\$ (3,999)	\$ (2,705)	\$ (213)
20.03	Maintenance Misc Distribution Plant-Transportation	d d 3.06	\$ 2,328	\$ 710	\$ 290	\$ 767	\$ 519	\$ 41
20.04	Total Maintenance Misc Distribution Plant	Sum	\$ 67,895	\$ 20,718	\$ 8,474	\$ 22,375	\$ 15,136	\$ 1,193

Docket No. E-34, Sub 54
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For Twelve Months Ended December 31, 2021

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Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
<u>Supervision Customer Accounts</u>								
21.00	Supervision Customer Accounts-Labor	c c 4.05	\$ 30,303	\$ 20,404	\$ 4,656	\$ 3,191	\$ 1,691	\$ 361
21.01	Supervision Customer Accounts-Benefits	c c 4.05	\$ 17,878	\$ 12,038	\$ 2,747	\$ 1,883	\$ 998	\$ 213
21.02	Supervision Customer Accounts-Transportation	c c 4.05	\$ 1,650	\$ 1,111	\$ 254	\$ 174	\$ 92	\$ 20
21.03	Total Supervision Customer Accounts	Sum	\$ 49,831	\$ 33,552	\$ 7,656	\$ 5,247	\$ 2,781	\$ 594
<u>Meter Reading Expense</u>								
22.00	Meter Reading Expense	c c 4.04	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22.01	Meter Reading Expense-Labor	c c 4.04	\$ 480	\$ 386	\$ 79	\$ 15	\$ 0	\$ -
22.02	Meter Reading Expense-Benefits	c c 4.04	\$ 235	\$ 189	\$ 39	\$ 7	\$ 0	\$ -
22.03	Meter Reading Expense-Transportation	c c 4.04	\$ 10	\$ 8	\$ 2	\$ 0	\$ 0	\$ -
22.04	Total Meter Reading Expense	Sum	\$ 726	\$ 584	\$ 120	\$ 22	\$ 0	\$ -
<u>Customer Records</u>								
23.00	Customer Records & Collections Expense	c c 4.05	\$ 234,974	\$ 158,213	\$ 36,103	\$ 24,743	\$ 13,116	\$ 2,800
23.01	Customer Records & Collections Expense-Labor	c c 4.05	\$ 280,935	\$ 189,159	\$ 43,165	\$ 29,582	\$ 15,681	\$ 3,347
23.02	Customer Records & Collections Expense-Benefits	c c 4.05	\$ 160,868	\$ 108,316	\$ 24,717	\$ 16,939	\$ 8,979	\$ 1,917
23.03	Postage	c c 4.05	\$ 2,242	\$ 1,509	\$ 344	\$ 236	\$ 125	\$ 27
23.04	Customer Records Cash Over/Short	c c 4.05	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
23.05	Customer Records - Bank Service Fees	c c 4.05	\$ 11,415	\$ 7,686	\$ 1,754	\$ 1,202	\$ 637	\$ 136
23.06	Customer Records - Credit Card Fees	c c 4.05	\$ 88,910	\$ 59,865	\$ 13,661	\$ 9,362	\$ 4,963	\$ 1,059
23.07	Total Customer Records	Sum	\$ 779,343	\$ 524,748	\$ 119,745	\$ 82,064	\$ 43,501	\$ 9,286
<u>Maintenance Of General Plant</u>								
24.00	Maintenance Of General Plant	d d 3.06	\$ 49,167	\$ 15,003	\$ 6,136	\$ 16,203	\$ 10,961	\$ 864
24.01	Maintenance Of General Plant-Labor	d d 3.06	\$ 1,722	\$ 525	\$ 215	\$ 567	\$ 384	\$ 30
24.02	Maintenance Of General Plant-Benefits	d d 3.06	\$ 901	\$ 275	\$ 112	\$ 297	\$ 201	\$ 16
24.03	Maintenance Of General Plant-Transportation	d d 3.06	\$ 41	\$ 12	\$ 5	\$ 13	\$ 9	\$ 1
24.04	Total Maintenance Of General Plant	Sum	\$ 51,831	\$ 15,816	\$ 6,469	\$ 17,081	\$ 11,555	\$ 910
25.00	Inflation Adjustment Through July 31, 2023	d d 3.06	\$ 240,411	\$ 73,359	\$ 30,004	\$ 79,228	\$ 53,596	\$ 4,223
26.00	Subtotal Electric Operating & Maintenance Expense		\$ 17,760,517	\$ 5,912,569	\$ 2,241,606	\$ 6,399,179	\$ 2,999,525	\$ 207,639
26.02	Subtotal Electric O&M Excluding Purchased Power		\$ 2,820,409	\$ 1,222,367	\$ 373,959	\$ 683,429	\$ 441,665	\$ 98,989
26.03	Electric O&M Excluding Purchased Power Allocator	w w	100.00%	43.34%	13.26%	24.23%	15.66%	3.51%

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

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Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
Electric O&M Excluding Purchased Power			\$ 2,820,409	\$ 1,222,367	\$ 373,959	\$ 683,429	\$ 441,665	\$ 98,989
	Customer-Related	c	\$ 1,261,074	\$ 746,551	\$ 179,348	\$ 169,545	\$ 94,033	\$ 71,597
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demand-Related	d	\$ 1,559,335	\$ 475,816	\$ 194,611	\$ 513,884	\$ 347,632	\$ 27,392
Electric O&M Excluding Purchased Power			\$ 2,820,409	\$ 1,222,367	\$ 373,959	\$ 683,429	\$ 441,665	\$ 98,989
	Customer-Related	c	\$ 1,261,074	\$ 746,551	\$ 179,348	\$ 169,545	\$ 94,033	\$ 71,597
	Distribution-Related	d	\$ 1,559,335	\$ 475,816	\$ 194,611	\$ 513,884	\$ 347,632	\$ 27,392
	Transmission-Related	t	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Production-Related	p	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

General & Administrative Expenses

<u>Administration - Other</u>									
27.00	Customer Assistance Expense	w w	26.03	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27.01	Informational Advertising Expense	w w	26.03	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27.02	Administrative & General	w w	26.03	\$ 299,028	\$ 129,599	\$ 39,648	\$ 72,459	\$ 46,827	\$ 10,495
27.03	Administrative & General-Salaries	w w	26.03	\$ 322,551	\$ 139,794	\$ 42,767	\$ 78,159	\$ 50,510	\$ 11,321
27.04	Administrative & General-Benefits	w w	26.03	\$ 222,031	\$ 96,228	\$ 29,439	\$ 53,802	\$ 34,769	\$ 7,793
27.05	Office Supplies And Expenses	w w	26.03	\$ 41,440	\$ 17,960	\$ 5,495	\$ 10,042	\$ 6,489	\$ 1,454
27.06	Consulting Fees	w w	26.03	\$ 230,607	\$ 99,945	\$ 30,576	\$ 55,880	\$ 36,112	\$ 8,094
27.07	Investment Management Expense	w w	26.03	\$ 14,592	\$ 6,324	\$ 1,935	\$ 3,536	\$ 2,285	\$ 512
27.08	Property Insurance	w w	26.03	\$ 12,349	\$ 5,352	\$ 1,637	\$ 2,992	\$ 1,934	\$ 433
27.09	Injuries & Damages Expense	w w	26.03	\$ 101,106	\$ 43,819	\$ 13,406	\$ 24,499	\$ 15,833	\$ 3,549
27.10	Injuries & Damages Expense-Labor	w w	26.03	\$ 5,293	\$ 2,294	\$ 702	\$ 1,283	\$ 829	\$ 186
27.11	Injuries & Damages Expense-Benefits	w w	26.03	\$ 4,756	\$ 2,061	\$ 631	\$ 1,152	\$ 745	\$ 167
27.12	Injuries & Damages Expense-Transportation	w w	26.03	\$ 254	\$ 110	\$ 34	\$ 62	\$ 40	\$ 9
27.13	Employee Pension & Benefits Expense	w w	26.03	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27.14	Taxes-Employers FICA	w w	26.03	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27.15	State Retirement-Employers	w w	26.03	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
27.16	Institutional Advertising Expense	w w	26.03	\$ 70,270	\$ 30,455	\$ 9,317	\$ 17,028	\$ 11,004	\$ 2,466
27.17	Miscellaneous General Expense	w w	26.03	\$ 44,547	\$ 19,307	\$ 5,906	\$ 10,794	\$ 6,976	\$ 1,563
27.18	Total Administrative-Other		Sum	\$ 1,368,825	\$ 593,249	\$ 181,493	\$ 331,688	\$ 214,353	\$ 48,042
28.00	Total O&M		Sum	\$ 19,129,342	\$ 6,505,818	\$ 2,423,099	\$ 6,730,867	\$ 3,213,878	\$ 255,681
27.01	Total O&M Allocator			100.00%	34.01%	12.67%	35.19%	16.80%	1.34%
27.03	Total O&M Less Purchased Power		Sum	\$ 4,189,234	\$ 1,815,616	\$ 555,452	\$ 1,015,117	\$ 656,018	\$ 147,030
27.04	Total O&M Less Purchased Power Allocator			100.00%	43.34%	13.26%	24.23%	15.66%	3.51%

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021

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Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)	
Total O&M Excluding Purchased Power									
	Customer-Related	c	\$ 1,873,109	\$ 1,108,874	\$ 266,391	\$ 251,830	\$ 139,670	\$ 106,345	
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Demand-Related	d	\$ 2,316,125	\$ 706,743	\$ 289,061	\$ 763,287	\$ 516,348	\$ 40,686	
Total O&M Excluding Purchased Power									
	Customer-Related	c	\$ 1,873,109	\$ 1,108,874	\$ 266,391	\$ 251,830	\$ 139,670	\$ 106,345	
	Distribution-Related	d	\$ 2,316,125	\$ 706,743	\$ 289,061	\$ 763,287	\$ 516,348	\$ 40,686	
	Transmission-Related	t	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Production-Related	p	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Depreciation and Property Transaction Expense									
29.00	Depreciation	d d	3.06	\$ 1,150,233	\$ 350,982	\$ 143,554	\$ 379,063	\$ 256,429	\$ 20,205
29.01	Amortization of Unrecovered Plant	d d	3.06	\$ 573,900	\$ 175,120	\$ 71,625	\$ 189,131	\$ 127,943	\$ 10,081
29.02	Gain/Loss Disposing Utility Property	d d	3.06	\$ 33,663	\$ 10,272	\$ 4,201	\$ 11,094	\$ 7,505	\$ 591
29.03	Sale Of Surplus Property	d d	3.06	\$ (15,526)	\$ (4,738)	\$ (1,938)	\$ (5,117)	\$ (3,461)	\$ (273)
29.04	Total Depreciation and Property Transaction Expense	Sum		\$ 1,742,271	\$ 531,637	\$ 217,442	\$ 574,171	\$ 388,415	\$ 30,605
Interest Expense									
<u>Interest Expense:</u>									
30.00	Interest Expense Consumer Deposits	c c	REV1	\$ 13,066	\$ 4,679	\$ 1,631	\$ 4,046	\$ 2,547	\$ 162
30.01	Total Interest Expense	Sum		\$ 13,066	\$ 4,679	\$ 1,631	\$ 4,046	\$ 2,547	\$ 162
Total Expenses									
31.00	Total Expenses			\$ 20,884,679	\$ 7,042,134	\$ 2,642,172	\$ 7,309,084	\$ 3,604,840	\$ 286,448
31.01	Total Expenses Less Purchased Power			\$ 5,944,571	\$ 2,351,933	\$ 774,526	\$ 1,593,334	\$ 1,046,980	\$ 177,798
Total Expenses									
	Customer-Related	c	\$ 1,886,175	\$ 1,113,553	\$ 268,022	\$ 255,876	\$ 142,217	\$ 106,507	
	Energy-Related	e	\$ 8,399,893	\$ 2,533,461	\$ 950,464	\$ 2,977,390	\$ 1,829,928	\$ 108,650	
	Demand-Related	d	\$ 10,598,610	\$ 3,395,121	\$ 1,423,686	\$ 4,075,818	\$ 1,632,695	\$ 71,291	
Total Expenses Less Purchased Power									
	Customer-Related	c	\$ 1,886,175	\$ 1,113,553	\$ 268,022	\$ 255,876	\$ 142,217	\$ 106,507	
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
	Demand-Related	d	\$ 4,058,396	\$ 1,238,380	\$ 506,504	\$ 1,337,458	\$ 904,763	\$ 71,291	

Docket No. E-34, Sub 54
Appalachian State University
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Cost of Service Analysis
For Twelve Months Ended December 31, 2021

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Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
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Total Expenses			\$ 20,884,679	\$ 7,042,134	\$ 2,642,172	\$ 7,309,084	\$ 3,604,840	\$ 286,448
	Customer-Related	c	\$ 1,886,175	\$ 1,113,553	\$ 268,022	\$ 255,876	\$ 142,217	\$ 106,507
	Distribution-Related	d	\$ 4,058,396	\$ 1,238,380	\$ 506,504	\$ 1,337,458	\$ 904,763	\$ 71,291
	Transmission-Related	t	\$ 2,165,014	\$ 664,323	\$ 269,393	\$ 804,915	\$ 426,383	\$ -
	Production-Related	p	\$ 12,775,094	\$ 4,025,878	\$ 1,598,253	\$ 4,910,835	\$ 2,131,477	\$ 108,650

Total Expenses Less Purchased Power			\$ 5,944,571	\$ 2,351,933	\$ 774,526	\$ 1,593,334	\$ 1,046,980	\$ 177,798
	Customer-Related	c	\$ 1,886,175	\$ 1,113,553	\$ 268,022	\$ 255,876	\$ 142,217	\$ 106,507
	Distribution-Related	d	\$ 4,058,396	\$ 1,238,380	\$ 506,504	\$ 1,337,458	\$ 904,763	\$ 71,291
	Transmission-Related	t	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Production-Related	p	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -

Net Income and Return on Rate Base

32.00	Net Income Before Taxes		Sum	\$ (2,030,586)	\$ (288,958)	\$ (287,552)	\$ (1,469,635)	\$ 70,951	\$ (55,392)
Rate Base									
33.00	Plant In Service	d d	3.06	\$ 38,528,139	\$ 11,756,485	\$ 4,808,461	\$ 12,697,081	\$ 8,589,312	\$ 676,799
33.01	Less: Accumulated Depreciation	d d	3.06	\$ (17,721,655)	\$ (5,407,590)	\$ (2,211,731)	\$ (5,840,233)	\$ (3,950,796)	\$ (311,305)
33.02	Net Plant in Service		Sum	\$ 20,806,484	\$ 6,348,895	\$ 2,596,730	\$ 6,856,849	\$ 4,638,516	\$ 365,494
33.03	Construction Work in Progress	d d	3.06	\$ 586,437	\$ 178,946	\$ 73,190	\$ 193,262	\$ 130,738	\$ 10,302
33.04	Investments - Blue Ridge Electric Membership Corporation	d d	3.03	\$ 6,563,579	\$ 2,096,189	\$ 815,461	\$ 2,432,818	\$ 1,219,110	\$ -
33.05	Investments - North Carolina Electric Membership Corporation	d d	3.03	\$ 417,471	\$ 133,326	\$ 51,867	\$ 154,737	\$ 77,540	\$ -
33.06	Investments - Meridian Cooperative	d d	3.03	\$ 9,372	\$ 2,993	\$ 1,164	\$ 3,474	\$ 1,741	\$ -
33.07	Regulatory Asset (Payne Branch Dam)	d d	3.03	\$ 137,771	\$ 43,999	\$ 17,117	\$ 51,065	\$ 25,589	\$ -
33.08	Regulatory Asset (Unamortized Old Substation)	d d	3.06	\$ 80,351	\$ 24,518	\$ 10,028	\$ 26,480	\$ 17,913	\$ 1,411
33.09	Regulatory Asset (New Substation)	d d	3.06	\$ 215,585	\$ 65,784	\$ 26,906	\$ 71,047	\$ 48,062	\$ 3,787
33.10	Regulatory Asset (UBIT)	d d	3.06	\$ 685,197	\$ 209,081	\$ 85,515	\$ 225,809	\$ 152,755	\$ 12,036
33.11	Prepayments	d d	3.06	\$ 81,593	\$ 24,897	\$ 10,183	\$ 26,889	\$ 18,190	\$ 1,433
33.12	Customer Deposits	d d	3.06	\$ (235,508)	\$ (71,863)	\$ (29,392)	\$ (77,613)	\$ (52,503)	\$ (4,137)
33.13	Working Capital	d d	3.06	\$ 1,179,013	\$ 359,764	\$ 147,145	\$ 388,548	\$ 262,845	\$ 20,711
33.14	Total Rate Base		Sum	\$ 30,527,344	\$ 9,416,531	\$ 3,805,914	\$ 10,353,366	\$ 6,540,495	\$ 411,038
33.15	Current Return on Rate Base Before Taxes		Calc	-6.652%	-3.069%	-7.555%	-14.195%	1.085%	-13.476%

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

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Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
34.00	Proposed Return on Rate Base Grossed Up for Taxes	Pulled	7.007%	7.007%	7.007%	7.007%	7.007%	7.007%
34.01	Targeted Net Income	Calc	\$ 2,139,051	\$ 659,816	\$ 266,680	\$ 725,460	\$ 458,292	\$ 28,801
34.02	Revenue Requirement before Uncollectible Accounts Adder	Sum	\$ 22,766,432	\$ 7,608,648	\$ 2,876,321	\$ 7,953,866	\$ 4,012,347	\$ 315,250
34.03	Uncollectible Accounts	c c REV2	\$ 51,506	\$ 22,911	\$ 7,988	\$ 19,811	\$ -	\$ 795
34.04	Regulatory Commission Expense	c c REV1	\$ 35,596	\$ 12,747	\$ 4,445	\$ 11,023	\$ 6,939	\$ 442
34.05	Unrelated Business Income Tax	c c REV1	\$ 368,010	\$ 131,791	\$ 45,952	\$ 113,960	\$ 71,735	\$ 4,572
34.06	Total Revenue Requirement to Recover from Rates	Sum	\$ 23,221,543	\$ 7,776,098	\$ 2,934,706	\$ 8,098,660	\$ 4,091,020	\$ 321,059
34.07	Total Current Base Rate Revenues	Pulled	\$ 18,596,795	\$ 6,659,874	\$ 2,322,088	\$ 5,758,770	\$ 3,625,006	\$ 231,057
34.08	Total Revenue Increase(Decrease) Required	Sum	\$ 4,624,749	\$ 1,116,225	\$ 612,617	\$ 2,339,889	\$ 466,015	\$ 90,003
34.09	Total Percent Increase(Decrease) Required	Calc	24.87%	16.76%	26.38%	40.63%	12.86%	38.95%
34.10	PPA Rate Revenue Reduction	Pulled	\$ (2,026,355)	\$ (611,204)	\$ (229,302)	\$ (718,303)	\$ (441,475)	\$ (26,072)
34.11	Net Rate Revenue Increase	Sum	\$ 2,598,393	\$ 505,021	\$ 383,316	\$ 1,621,586	\$ 24,540	\$ 63,930
34.12	Net Rate Revenue Percent Increase	Calc	13.97%	7.58%	16.51%	28.16%	0.68%	27.67%
Total Revenue Requirement to Recover from Rates			\$ 23,221,543	\$ 7,776,098	\$ 2,934,706	\$ 8,098,660	\$ 4,091,020	\$ 321,059
	Customer-Related	c	\$ 2,083,989	\$ 1,187,700	\$ 293,875	\$ 319,991	\$ 170,105	\$ 112,316
	Energy-Related	e	\$ 8,399,893	\$ 2,533,461	\$ 950,464	\$ 2,977,390	\$ 1,829,928	\$ 108,650
	Demand-Related	d	\$ 12,737,661	\$ 4,054,937	\$ 1,690,366	\$ 4,801,278	\$ 2,090,987	\$ 100,093
Total Revenue Requirement to Recover from Rates			\$ 23,221,543	\$ 7,776,098	\$ 2,934,706	\$ 8,098,660	\$ 4,091,020	\$ 321,059
	Customer-Related	c	\$ 2,083,989	\$ 1,187,700	\$ 293,875	\$ 319,991	\$ 170,105	\$ 112,316
	Distribution-Related	d	\$ 6,197,447	\$ 1,898,196	\$ 773,184	\$ 2,062,919	\$ 1,363,055	\$ 100,093
	Transmission-Related	t	\$ 2,165,014	\$ 664,323	\$ 269,393	\$ 804,915	\$ 426,383	\$ -
	Production-Related	p	\$ 12,775,094	\$ 4,025,878	\$ 1,598,253	\$ 4,910,835	\$ 2,131,477	\$ 108,650
35.00	Cost of Service Summary:							
35.01	NRLP Customer Related		\$ 2,083,989	\$ 1,187,700	\$ 293,875	\$ 319,991	\$ 170,105	\$ 112,316
35.02	NRLP Distribution Related		\$ 6,197,447	\$ 1,898,196	\$ 773,184	\$ 2,062,919	\$ 1,363,055	\$ 100,093
35.03	BREMCO Transmission Related		\$ 1,478,845	\$ 465,397	\$ 183,655	\$ 548,339	\$ 281,454	\$ -
35.04	DEC Transmission Related		\$ 686,169	\$ 198,926	\$ 85,738	\$ 256,577	\$ 144,928	\$ -
35.05	CPP Production Demand Related		\$ 4,375,200	\$ 1,492,417	\$ 647,789	\$ 1,933,444	\$ 301,550	\$ -
35.06	CPP Production Energy Related		\$ 8,399,893	\$ 2,533,461	\$ 950,464	\$ 2,977,390	\$ 1,829,928	\$ 108,650
35.07	Total		\$ 23,221,543	\$ 7,776,098	\$ 2,934,706	\$ 8,098,660	\$ 4,091,020	\$ 321,059

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis
For Twelve Months Ended December 31, 2021**

Line	Description	Allocation Factors	Total System	Residential	Commercial General	Commercial Demand	ASU Campus	Lighting (O&M Only)
36.00	Monthly Fixed Cost per Customer Summary:							
36.01	NRLP Customer and Distribution Related			\$ 36.00	\$ 60.70	\$ 724.51	\$ 127,763.39	
36.02	BREMCO Transmission Related			\$ 5.43	\$ 10.45	\$ 166.72	\$ 23,454.52	
36.03	DEC Transmission Related			\$ 2.32	\$ 4.88	\$ 78.01	\$ 12,077.36	
36.04	CPP Production Demand Related			\$ 17.41	\$ 36.85	\$ 587.85	\$ 25,129.13	
36.05	Total			\$ 61.17	\$ 112.88	\$ 1,557.09	\$ 188,424.40	

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Proposed Two Year Phase In of Cost of Service Base Rates**

Line	Description	Total System	Residential	Commercial General	Commercial Demand	ASU Campus
1	Allocated Cost of Service:					
2	Existing Base Rate Revenues	\$ 18,365,738	\$ 6,659,874	\$ 2,322,088	\$ 5,758,770	\$ 3,625,006
3	Test Year Revenue Requirement	\$ 22,900,484	\$ 7,776,098	\$ 2,934,706	\$ 8,098,660	\$ 4,091,020
4	Over(Under) Recovery	\$ (4,534,746)	\$ (1,116,225)	\$ (612,617)	\$ (2,339,889)	\$ (466,015)
5	Base Rate Change Required	24.69%	16.76%	26.38%	40.63%	12.86%
6						
7	Maximum Annual Class Rate Increase (2% Over Total System Required Increase)	26.69%				
8						
9	Proposed Base Rate Phase In:					
10	Year One Base Rate Revenues (2023)	\$ 22,900,484	\$ 8,222,702	\$ 2,934,706	\$ 7,295,863	\$ 4,447,213
11	Over(Under) Existing Base Rate Revenues	\$ 4,534,746	\$ 1,562,829	\$ 612,617	\$ 1,537,093	\$ 822,207
12	Year One Rate Change from Existing Base Rates	24.69%	23.47%	26.38%	26.69%	22.68%
13						
14	Year Two Base Rate Revenues (2024)	\$ 22,900,484	\$ 7,776,098	\$ 2,934,706	\$ 8,098,660	\$ 4,091,020
15	Over(Under) Year One Base Rate Revenues	\$ -	\$ (446,604)	\$ -	\$ 802,797	\$ (356,193)
16	Year Two Base Rate Change from Year One Base Rates	0.00%	-5.43%	0.00%	11.00%	-8.01%
17						
18	Final Base Rate Change from Existing Rates	24.69%	16.76%	26.38%	40.63%	12.86%

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**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Current and Proposed Rate Design
For Twelve Months Ended December 31, 2021
Proposed Rates Based on Year One Phase In**

Line	Description	Billing Determinants	Current Rates	Current Rate Revenues	Proposed Rates	Proposed Revenue	Increase (Decrease)	Percent Increase
1	Residential Service:							
2	Basic Facilities Charge	7,142	\$ 12.58	\$ 1,078,207	\$ 14.50	\$ 1,242,766	\$ 164,559	15.26%
3	Energy Charge:							
4	NRLP Distribution Charge - All kWh	61,988,218	\$ 0.090044	\$ 5,581,667	\$ 0.032593	\$ 2,020,382	\$ (3,561,285)	25.05%
5	Wholesale Power Supply Charge - All kWh				\$ 0.080008	\$ 4,959,553	\$ 4,959,553	
6	PPA Energy - All kWh		\$ 0.045753	\$ 2,836,147	\$ 0.035893	\$ 2,224,943	\$ (611,204)	-21.55%
7	Total Energy - All kWh		\$ 0.135797	\$ 8,417,814	\$ 0.148494	\$ 9,204,878	\$ 787,064	9.35%
8	Total Residential Service			\$ 9,496,021		\$ 10,447,644	\$ 951,624	10.02%
9	Commercial General Service:							
11	Basic Facilities Charge	1,465	\$ 17.42	\$ 306,209	\$ 17.50	\$ 307,615	\$ 1,406	0.46%
12	Energy Charge:							
13	NRLP Distribution Charge - All kWh	23,255,764	\$ 0.086683	\$ 2,015,879	\$ 0.032656	\$ 759,440	\$ (1,256,439)	30.32%
14	Wholesale Power Supply Charge - All kWh				\$ 0.080309	\$ 1,867,647	\$ 1,867,647	
15	PPA Energy - All kWh		\$ 0.045753	\$ 1,064,021	\$ 0.035893	\$ 834,719	\$ (229,302)	-21.55%
16	Total Energy - All kWh		\$ 0.132436	\$ 3,079,900	\$ 0.068549	\$ 3,461,807	\$ 381,906	12.40%
17	Total Commercial General Service			\$ 3,386,109		\$ 3,769,422	\$ 383,312	11.32%
18	Commercial Demand Service:							
20	Basic Facilities Charge	274	\$ 23.22	\$ 76,371	\$ 30.00	\$ 98,670	\$ 22,299	29.20%
21	Demand Charge:							
22	NRLP Distribution Charge - All kW	209,470	\$ 8.27	\$ 1,732,317	\$ 2.27	\$ 475,497	\$ (1,256,820)	0.00%
23	Wholesale Power Supply Charge - All kW				\$ 6.00	\$ 1,256,820	\$ 1,256,820	
24	Energy Charge:							
25	NRLP Distribution Charge - All kWh	72,850,193	\$ 0.034222	\$ 3,950,083	\$ 0.021586	\$ 1,572,544	\$ (2,377,539)	38.35%
26	Wholesale Power Supply Charge - All kWh				\$ 0.053429	\$ 3,892,313	\$ 3,892,313	
27	PPA Energy - All kWh		\$ 0.045753	\$ 3,333,115	\$ 0.035893	\$ 2,614,812	\$ (718,303)	-21.55%
28	Total Energy - All kWh		\$ 0.099975	\$ 7,283,198	\$ 0.057479	\$ 8,079,669	\$ 796,471	10.94%
29	Total Commercial Demand Service			\$ 9,091,885		\$ 9,920,656	\$ 818,771	9.01%
30	ASU Campus Service:							
32	Distribution Facilities Charge:							
33	All kW at ASU Substation (plus on-site generation)	92,441	\$ 10.63	\$ 982,643	\$ 18.03	\$ 1,666,703	\$ 684,060	69.61%
34	Power Demand Charge:							
35	All kW at ASU Substation	92,441	\$ 8.75	\$ 808,855	\$ 8.56	\$ 791,291	\$ (17,564)	-2.17%
36	Energy Charge:							
37	All kWh at ASU Substation	44,774,302						
38	Base Energy Charge - All kWh		\$ 0.040950	\$ 1,833,508	\$ 0.044428	\$ 1,989,233	\$ 155,725	8.49%
39	PPA Energy - All kWh		\$ 0.045753	\$ 2,048,559	\$ 0.035893	\$ 1,607,084	\$ (441,475)	-21.55%
40	Total Energy Charge - All kWh		\$ 0.086703	\$ 3,882,066	\$ 0.080321	\$ 3,596,317	\$ (285,750)	
41	Total ASU Campus Service			\$ 5,673,564		\$ 6,054,311	\$ 380,747	6.71%
42	Lighting Service:							
44	Schedule Of Base Charge							
45	Investment and Energy Charge:							
46	High Pressure Sodium:							
47	150 Watt HPS Cobra Head	142	\$ 8.90	\$ 15,166	\$ 13.86	\$ 23,623	\$ 8,457	55.76%
48	250 Watt HPS Cobra Head	408	\$ 12.93	\$ 63,305	\$ 18.79	\$ 92,014	\$ 28,709	45.35%
49	250 Watt HPS Shoebox	7	\$ 12.93	\$ 1,086	\$ 21.17	\$ 1,779	\$ 693	63.76%
50	Mercury Vapor:							
51	175 Watt MV	196	\$ 9.26	\$ 21,780	\$ 12.86	\$ 30,248	\$ 8,468	38.88%
52	400 Watt MV TV	4	\$ 36.97	\$ 815	\$ 24.71	\$ 1,186	\$ 371	45.59%
53	Metal Halide:							
54	250 Watt MH Cobra Head	258	\$ 15.33	\$ 47,462	\$ 19.48	\$ 60,320	\$ 12,859	27.09%
55	250 Watt MH Decashield	3	\$ 15.33	\$ 552	\$ 19.18	\$ 691	\$ 139	25.14%
56	400 Watt MH Cobra Head	364	\$ 19.54	\$ 85,351	\$ 27.13	\$ 118,510	\$ 33,159	38.85%
57	400 Watt MH Flood TV		\$ 19.54	\$ -	\$ 27.48	\$ -	\$ -	0.00%
58	400 Watt MH Shoebox	5	\$ 19.54	\$ 1,172	\$ 29.45	\$ 1,767	\$ 595	50.74%
59	Energy Charge Only (Town of Boone Owned Lighting):							
60	Sodium Vapor:							
61	150 Watt Sodium Vapor TOB	79	\$ 4.39	\$ 4,162	\$ 6.61	\$ 6,268	\$ 2,107	50.62%
62	250 Watt Sodium Vapor TOB	216	\$ 7.31	\$ 18,948	\$ 11.02	\$ 28,565	\$ 9,617	50.76%
63	400 Watt Sodium Vapor TOB	163	\$ 11.68	\$ 22,846	\$ 17.63	\$ 34,489	\$ 11,643	50.96%
64	750 Watt Sodium Vapor TOB	1	\$ 21.92	\$ 263	\$ 33.06	\$ 397	\$ 134	50.82%
65	Mercury Vapor:							
66	175 Watt MV TOB	163	\$ 5.12	\$ 10,015	\$ 7.71	\$ 15,089	\$ 5,074	50.67%
67	400 Watt MV TV TOB	6	\$ 11.68	\$ 841	\$ 17.63	\$ 1,270	\$ 429	50.96%
68	Metal Halide:							
69	250 Watt Metal Halide - TOB	1	\$ 7.31	\$ 88	\$ 11.02	\$ 132	\$ 45	50.76%
70	400 Watt Metal Halide - TOB	1	\$ 11.68	\$ 140	\$ 17.63	\$ 212	\$ 71	50.96%

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Current and Proposed Rate Design
For Twelve Months Ended December 31, 2021
Proposed Rates Based on Year One Phase In**

Line	Description	Billing Determinants	Current Rates	Current Rate Revenues	Proposed Rates	Proposed Revenue	Increase (Decrease)	Percent Increase
71	<u>Schedule LEDL Base Charge</u>							
72	Investment and Energy Charge:							
73	50 Watt Yard Light (No Longer Available)	4 \$	4.07 \$	195 \$	4.57 \$	220 \$	24	12.38%
74	96 Watt LED TV Bronze	4 \$	6.85 \$	329 \$	10.43 \$	501 \$	172	52.25%
75	101 Watt LED Bronze Cobra Head	4 \$	6.85 \$	329 \$	12.93 \$	621 \$	292	88.72%
76	110 Watt LED (No Longer Available)	7 \$	6.85 \$	576 \$	7.96 \$	669 \$	93	16.18%
77	119 Area Light LED Shoebox (No Longer Available)	98 \$	9.98 \$	11,736 \$	11.19 \$	13,154 \$	1,418	12.08%
78	160 Watt Cobra Head LED	12 \$	11.06 \$	1,593 \$	12.16 \$	1,750 \$	158	9.91%
79	Energy Charge Only (Town of Boone Owned Lighting):							
80	20 Watt LED TOB	1 \$	0.44 \$	5 \$	0.88 \$	11 \$	5	100.37%
81	27 Watt LED TOB	17 \$	0.63 \$	129 \$	1.19 \$	243 \$	114	88.92%
82	40 Watt LED TOB	25 \$	0.94 \$	282 \$	1.76 \$	529 \$	247	87.58%
83	50 Watt LED TOB	3 \$	1.13 \$	41 \$	2.20 \$	79 \$	39	95.05%
84	TOB 80 Watt LED	33 \$	1.82 \$	721 \$	3.53 \$	1,396 \$	676	93.76%
85	92 Watt LED TOB	17 \$	2.14 \$	437 \$	4.06 \$	827 \$	391	89.51%
86	100 Watt LED TOB	81 \$	2.33 \$	2,265 \$	4.41 \$	4,285 \$	2,020	89.19%
87	106 Watt LED TOB	54 \$	2.45 \$	1,588 \$	4.67 \$	3,028 \$	1,440	90.72%
88	TOB 110 Watt LED	20 \$	2.51 \$	602 \$	4.85 \$	1,184 \$	561	93.18%
89	120 Watt LED TOB	17 \$	2.77 \$	565 \$	5.29 \$	1,079 \$	514	90.97%
90	TOB 136 Watt LED	2 \$	3.14 \$	75 \$	6.00 \$	144 \$	69	90.92%
91	150 Watt LED TOB	173 \$	3.46 \$	7,183 \$	6.61 \$	13,727 \$	6,544	91.10%
92	TOB 180 Watt LED	24 \$	4.15 \$	1,195 \$	7.93 \$	2,285 \$	1,090	91.20%
93	<u>Schedule OL PPA Charge</u>							
94	Investment and Energy Charge:							
95	<u>High Pressure Sodium:</u>							
96	150 Watt HPS Cobra Head	\$	2.50 \$	4,260 \$	1.97 \$	3,357 \$	(903)	-21.20%
97	250 Watt HPS Cobra Head	\$	4.17 \$	20,416 \$	3.28 \$	16,059 \$	(4,357)	-21.34%
98	250 Watt HPS Shoebox	\$	4.17 \$	350 \$	3.28 \$	276 \$	(75)	-21.34%
99	<u>Mercury Vapor:</u>							
100	175 Watt MV	\$	2.92 \$	6,868 \$	2.29 \$	5,396 \$	(1,482)	-21.58%
101	400 Watt MV TV	\$	6.68 \$	321 \$	5.24 \$	252 \$	(69)	-21.56%
102	<u>Metal Halide:</u>							
103	250 Watt MH Cobra Head	\$	4.17 \$	12,910 \$	3.28 \$	10,155 \$	(2,755)	-21.34%
104	250 Watt MH Decashield	\$	4.17 \$	150 \$	3.28 \$	118 \$	(32)	-21.34%
105	400 Watt MH Cobra Head	\$	6.68 \$	29,178 \$	5.24 \$	22,888 \$	(6,290)	-21.56%
106	400 Watt MH Flood TV	\$	6.68 \$	- \$	5.24 \$	- \$	-	0.00%
107	400 Watt MH Shoebox	\$	6.68 \$	401 \$	5.24 \$	314 \$	(86)	-21.56%
108	Energy Charge Only (Town of Boone Owned Lighting):							
109	<u>Sodium Vapor:</u>							
110	150 Watt Sodium Vapor TOB	\$	2.50 \$	2,370 \$	1.97 \$	1,868 \$	(502)	-21.20%
111	250 Watt Sodium Vapor TOB	\$	4.17 \$	10,809 \$	3.28 \$	8,502 \$	(2,307)	-21.34%
112	400 Watt Sodium Vapor TOB	\$	6.68 \$	13,066 \$	5.24 \$	10,249 \$	(2,817)	-21.56%
113	750 Watt Sodium Vapor TOB	\$	12.52 \$	150 \$	9.83 \$	118 \$	(32)	-21.49%
114	<u>Mercury Vapor:</u>							
115	175 Watt MV TOB	\$	2.92 \$	5,712 \$	2.29 \$	4,479 \$	(1,232)	-21.58%
116	400 Watt MV TV TOB	\$	6.68 \$	481 \$	5.24 \$	377 \$	(104)	-21.56%
117	<u>Metal Halide:</u>							
118	250 Watt Metal Halide - TOB	\$	4.17 \$	50 \$	3.28 \$	39 \$	(11)	-21.34%
119	400 Watt Metal Halide - TOB	\$	6.68 \$	80 \$	5.24 \$	63 \$	(17)	-21.56%
120	<u>Schedule LEDL PPA Charge</u>							
121	Investment and Energy Charge:							
122	50 Watt Yard Light (No Longer Available)	\$	0.83 \$	40 \$	0.66 \$	32 \$	(8)	-20.48%
123	96 Watt LED TV Bronze	\$	1.60 \$	77 \$	1.26 \$	60 \$	(16)	-21.25%
124	101 Watt LED Bronze Cobra Head	\$	1.69 \$	81 \$	1.32 \$	63 \$	(18)	-21.89%
125	110 Watt LED (No Longer Available)	\$	1.84 \$	155 \$	1.44 \$	121 \$	(34)	-21.74%
126	119 Area Light LED Shoebox (No Longer Available)	\$	1.99 \$	2,340 \$	1.56 \$	1,835 \$	(506)	-21.61%
127	160 Watt Cobra Head LED	\$	2.71 \$	390 \$	2.12 \$	305 \$	(85)	-21.77%
128	Energy Charge Only (Town of Boone Owned Lighting):							
129	20 Watt LED TOB	\$	0.33 \$	4 \$	0.26 \$	3 \$	(1)	-21.21%
130	27 Watt LED TOB	\$	0.45 \$	92 \$	0.35 \$	71 \$	(20)	-22.22%
131	40 Watt LED TOB	\$	0.67 \$	201 \$	0.52 \$	156 \$	(45)	-22.39%
132	50 Watt LED TOB	\$	0.83 \$	30 \$	0.66 \$	24 \$	(6)	-20.48%
133	TOB 80 Watt LED	\$	1.34 \$	531 \$	1.05 \$	416 \$	(115)	-21.64%
134	92 Watt LED TOB	\$	1.54 \$	314 \$	1.21 \$	247 \$	(67)	-21.43%
135	100 Watt LED TOB	\$	1.67 \$	1,623 \$	1.31 \$	1,273 \$	(350)	-21.56%
136	106 Watt LED TOB	\$	1.77 \$	1,147 \$	1.39 \$	901 \$	(246)	-21.47%
137	TOB 110 Watt LED	\$	1.84 \$	442 \$	1.44 \$	346 \$	(96)	-21.74%
138	120 Watt LED TOB	\$	2.00 \$	408 \$	1.57 \$	320 \$	(88)	-21.50%
139	TOB 136 Watt LED	\$	2.27 \$	54 \$	1.78 \$	43 \$	(12)	-21.59%
140	150 Watt LED TOB	\$	2.50 \$	5,190 \$	1.97 \$	4,090 \$	(1,100)	-21.20%
141	TOB 180 Watt LED	\$	3.01 \$	867 \$	2.36 \$	680 \$	(187)	-21.59%

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Current and Proposed Rate Design
For Twelve Months Ended December 31, 2021
Proposed Rates Based on Year One Phase In**

Line	Description	Billing Determinants	Current Rates	Current Rate Revenues	Proposed Rates	Proposed Revenue	Increase (Decrease)	Percent Increase
142	<u>Schedule OI Total Charge</u>							
143	Investment and Energy Charge:							
144	<u>High Pressure Sodium:</u>							
145	150 Watt HPS Cobra Head		\$ 11.40	\$ 19,426	\$ 15.83	\$ 26,979	\$ 7,554	38.89%
146	250 Watt HPS Cobra Head		\$ 17.10	\$ 83,722	\$ 22.07	\$ 108,073	\$ 24,352	29.09%
147	250 Watt HPS Shoebox		\$ 17.10	\$ 1,436	\$ 24.45	\$ 2,054	\$ 618	43.01%
148	<u>Mercury Vapor:</u>							
149	175 Watt MV		\$ 12.18	\$ 28,647	\$ 15.15	\$ 35,634	\$ 6,986	24.39%
150	400 Watt MV TV		\$ 23.65	\$ 1,135	\$ 29.95	\$ 1,437	\$ 302	26.62%
151	<u>Metal Halide:</u>							
152	250 Watt MH Cobra Head		\$ 19.50	\$ 60,372	\$ 22.76	\$ 70,475	\$ 10,103	16.73%
153	250 Watt MH Decashield		\$ 19.50	\$ 702	\$ 22.46	\$ 809	\$ 107	15.20%
154	400 Watt MH Cobra Head		\$ 26.22	\$ 114,529	\$ 32.37	\$ 141,398	\$ 26,869	23.46%
155	400 Watt MH Flood TV		\$ 26.22	\$ -	\$ 32.72	\$ -	\$ -	0.00%
156	400 Watt MH Shoebox		\$ 26.22	\$ 1,573	\$ 34.69	\$ 2,082	\$ 508	32.32%
157	Energy Charge Only (Town of Boone Owned Lighting):							
158	<u>Sodium Vapor:</u>							
159	150 Watt Sodium Vapor TOB		\$ 6.89	\$ 6,532	\$ 8.58	\$ 8,136	\$ 1,604	24.56%
160	250 Watt Sodium Vapor TOB		\$ 11.48	\$ 29,756	\$ 14.30	\$ 37,066	\$ 7,310	24.57%
161	400 Watt Sodium Vapor TOB		\$ 18.36	\$ 35,912	\$ 22.87	\$ 44,738	\$ 8,826	24.58%
162	750 Watt Sodium Vapor TOB		\$ 34.44	\$ 413	\$ 42.89	\$ 515	\$ 101	24.54%
163	<u>Mercury Vapor:</u>							
164	175 Watt MV TOB		\$ 8.04	\$ 15,726	\$ 10.00	\$ 19,568	\$ 3,842	24.43%
165	400 Watt MV TV TOB		\$ 18.36	\$ 1,322	\$ 22.87	\$ 1,647	\$ 325	24.58%
166	<u>Metal Halide:</u>							
167	250 Watt Metal Halide - TOB		\$ 11.48	\$ 138	\$ 14.30	\$ 172	\$ 34	24.57%
168	400 Watt Metal Halide - TOB		\$ 18.36	\$ 220	\$ 22.87	\$ 274	\$ 54	24.58%
169	<u>Schedule ILEDI Total Charge</u>							
170	Investment and Energy Charge:							
171	50 Watt Yard Light (No Longer Available)		\$ 4.90	\$ 235	\$ 5.23	\$ 251	\$ 16	6.82%
172	96 Watt LED TV Bronze		\$ 8.45	\$ 406	\$ 11.89	\$ 561	\$ 156	38.34%
173	101 Watt LED Bronze Cobra Head		\$ 8.54	\$ 410	\$ 14.25	\$ 684	\$ 274	66.83%
174	110 Watt LED (No Longer Available)		\$ 8.69	\$ 730	\$ 9.40	\$ 790	\$ 60	8.16%
175	119 Area Light LED Shoebox (No Longer Available)		\$ 11.97	\$ 14,077	\$ 12.75	\$ 14,989	\$ 912	6.48%
176	160 Watt Cobra Head LED		\$ 13.77	\$ 1,983	\$ 14.28	\$ 2,056	\$ 73	3.67%
177	Energy Charge Only (Town of Boone Owned Lighting):							
178	20 Watt LED TOB		\$ 0.77	\$ 9	\$ 1.14	\$ 14	\$ 4	48.26%
179	27 Watt LED TOB		\$ 1.08	\$ 220	\$ 1.54	\$ 314	\$ 94	42.61%
180	40 Watt LED TOB		\$ 1.61	\$ 483	\$ 2.28	\$ 685	\$ 202	41.82%
181	50 Watt LED TOB		\$ 1.96	\$ 71	\$ 2.86	\$ 103	\$ 33	46.13%
182	TOB 80 Watt LED		\$ 3.16	\$ 1,251	\$ 4.58	\$ 1,812	\$ 561	44.83%
183	92 Watt LED TOB		\$ 3.68	\$ 751	\$ 5.27	\$ 1,074	\$ 323	43.08%
184	100 Watt LED TOB		\$ 4.00	\$ 3,888	\$ 5.72	\$ 5,558	\$ 1,670	42.95%
185	106 Watt LED TOB		\$ 4.22	\$ 2,735	\$ 6.06	\$ 3,929	\$ 1,194	43.66%
186	TOB 110 Watt LED		\$ 4.35	\$ 1,044	\$ 6.29	\$ 1,509	\$ 465	44.57%
187	120 Watt LED TOB		\$ 4.77	\$ 973	\$ 6.86	\$ 1,399	\$ 426	43.81%
188	TOB 136 Watt LED		\$ 5.41	\$ 130	\$ 7.78	\$ 187	\$ 57	43.72%
189	150 Watt LED TOB		\$ 5.96	\$ 12,373	\$ 8.58	\$ 17,817	\$ 5,444	44.00%
190	TOB 180 Watt LED		\$ 7.16	\$ 2,062	\$ 10.29	\$ 2,965	\$ 903	43.78%
191	Estimated kWh Usage	2,658,434						
192	<u>Pole Charges</u>							
193	Shakespeare Fiberglass Bronze Poles	11	\$ 6.81	\$ 899	\$ 12.83	\$ 1,694	\$ 795	88.44%
194	30' Wood Pole	8	\$ 3.40	\$ 326	\$ 4.33	\$ 416	\$ 90	27.34%
195	Total Lighting			\$ 446,618		\$ 559,864	\$ 113,247	25.36%
196	Total System:							
197								
198								
199	Total Customers (Excluding Lighting)	8,882						
200	Total kWh Usage	705,526,911						
201	Total Base Revenues			\$ 18,690,798		\$ 23,364,854	\$ 4,674,056	25.01%
202	Total PPA Revenues			\$ 9,403,399		\$ 7,377,044	\$ (2,026,355)	-21.55%
203	Total Revenues			\$ 28,094,197		\$ 30,741,897	\$ 2,647,700	9.42%
204	Facilities Charge			\$ 2,443,429		\$ 3,315,754	\$ 872,325	35.70%
205	Demand Charge			\$ 2,541,172		\$ 1,266,788	\$ (1,274,384)	-50.15%
206	Energy Charge			\$ 22,662,979		\$ 24,342,671	\$ 1,679,692	7.41%
207	Lighting Charges:							
208	O&M Related			\$ 231,057		\$ 321,075	\$ 90,018	38.96%
209	Investment Related			\$ 94,003		\$ 143,304	\$ 49,301	52.45%
210	Total Lighting Charges			\$ 325,060		\$ 464,379	\$ 139,319	42.86%

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Lighting and Pole Investment Charges**

Line	Light Fixture Description	Fixture/Pole Cost			Lamp Cost			Average Life			ROR	Monthly Investment Charge		
		Material	Installation	Total	Lamp	Installation	Total	Fixture	Lamp	Pole		Fixture/Pole	Lamp	Total
1	Sodium Vapor:													
2	150 Watt HPS Cobra Head	\$ 224.09	\$ 216.90	\$ 440.99	\$ 7.50	\$ 108.47	\$ 115.97	10.00	5.48	n/a	7.007%	\$ 5.12	\$ 2.13	\$ 7.25
3	250 Watt HPS Cobra Head	\$ 269.09	\$ 216.90	\$ 485.99	\$ 7.50	\$ 108.47	\$ 115.97	10.00	5.48	n/a	7.007%	\$ 5.64	\$ 2.13	\$ 7.77
4	250 Watt HPS Shoebox	\$ 474.09	\$ 216.90	\$ 690.99	\$ 7.50	\$ 108.47	\$ 115.97	10.00	5.48	n/a	7.007%	\$ 8.03	\$ 2.13	\$ 10.15
5	400 Watt HPS Cobra Head	\$ 319.09	\$ 216.90	\$ 535.99	\$ 8.00	\$ 108.47	\$ 116.47	10.00	5.48	n/a	7.007%	\$ 6.23	\$ 2.14	\$ 8.36
6	750 Watt Sodium Vapor													
7														
8	Mercury Vapor:													
9	175 Watt MV	\$ 42.88	\$ 216.90	\$ 259.78	\$ 7.50	\$ 108.47	\$ 115.97	10.00	5.48	n/a	7.007%	\$ 3.02	\$ 2.13	\$ 5.15
10	400 Watt MV TV	\$ 204.92	\$ 216.90	\$ 421.82	\$ 10.00	\$ 108.47	\$ 118.47	10.00	5.48	n/a	7.007%	\$ 4.90	\$ 2.17	\$ 7.07
11														
12	Metal Halide:													
13	250 Watt MH Cobra Head	\$ 269.09	\$ 216.90	\$ 485.99	\$ 12.00	\$ 108.47	\$ 120.47	10.00	4.11	n/a	7.007%	\$ 5.64	\$ 2.82	\$ 8.46
14	250 Watt MH Decashield	\$ 243.38	\$ 216.90	\$ 460.28	\$ 12.00	\$ 108.47	\$ 120.47	10.00	4.11	n/a	7.007%	\$ 5.35	\$ 2.82	\$ 8.16
15	400 Watt MH Cobra Head	\$ 369.09	\$ 216.90	\$ 585.99	\$ 17.50	\$ 108.47	\$ 125.97	10.00	4.57	n/a	7.007%	\$ 6.81	\$ 2.69	\$ 9.50
16	400 Watt MH Flood TV	\$ 399.09	\$ 216.90	\$ 615.99	\$ 17.50	\$ 108.47	\$ 125.97	10.00	4.57	n/a	7.007%	\$ 7.15	\$ 2.69	\$ 9.85
17	400 Watt MH Shoebox	\$ 569.09	\$ 216.90	\$ 785.99	\$ 17.50	\$ 108.47	\$ 125.97	10.00	4.57	n/a	7.007%	\$ 9.13	\$ 2.69	\$ 11.82
18														
19	Light-Emitting Diode:													
20	20 Watt LED							No Longer Available						
21	27 Watt LED							No Longer Available						
22	40 Watt LED							No Longer Available						
23	50 Watt Yard Light							No Longer Available						
24	50 Watt LED Cobra Head	\$ 182.99	\$ 216.90	\$ 399.89	n/a	n/a	n/a	11.42	n/a	n/a	7.007%	\$ 4.25	n/a	\$ 4.25
25	80 Watt LED							No Longer Available						
26	92 Watt LED							No Longer Available						
27	96 Watt LED TV Bronze	\$ 366.69	\$ 216.90	\$ 583.59	n/a	n/a	n/a	11.42	n/a	n/a	7.007%	\$ 6.20	n/a	\$ 6.20
28	101 Watt LED Bronze Cobra Head	\$ 581.09	\$ 216.90	\$ 797.99	n/a	n/a	n/a	11.42	n/a	n/a	7.007%	\$ 8.48	n/a	\$ 8.48
29	100 Watt LED							No Longer Available						
30	106 Watt LED							No Longer Available						
31	108 Watt 32 LED Cobra Head	\$ 254.09	\$ 216.90	\$ 470.99	n/a	n/a	n/a	11.42	n/a	n/a	7.007%	\$ 5.00	n/a	\$ 5.00
32	110 Watt LED							No Longer Available						
33	119 Area Light LED (Shoebox)							No Longer Available						
34	120 Watt LED							No Longer Available						
35	136 Watt LED							No Longer Available						
36	150 Watt LED							No Longer Available						
37	160 Watt LED Cobra Head	\$ 255.09	\$ 216.90	\$ 471.99	n/a	n/a	n/a	11.42	n/a	n/a	7.007%	\$ 5.01	n/a	\$ 5.01
38	180 Watt LED							No Longer Available						
39														
40	Poles:													
41	Shakespeare Fiberglass Bronze Poles	\$ 1,306.24	\$ 508.30	\$ 1,814.54	n/a	n/a	n/a	n/a	n/a	25.00	7.007%	\$ 12.83	n/a	\$ 12.83
42	30' Wood Pole	\$ 142.00	\$ 508.30	\$ 650.30	n/a	n/a	n/a	n/a	n/a	30.00	7.007%	\$ 4.33	n/a	\$ 4.33

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Breakdown of Existing Lighting Charges**

Line	Light Type	# of Lights	kW Demand	kWh Energy	Monthly kWh per Light	Current Charges Based on COS Output from 2017 Rate Case							
						Monthly O&M Costs	Monthly Purchased Power Costs	Monthly Non-Investment Cost	Non-Investment Cost	Total Current Charge	Assumed Current Investment Cost	Total Current Rate Revenue	Assumed Investment Revenue
						\$ 0.030262	\$ 0.062846						
1	Schedule OL:												
2	Investment & Energy Charge:												
3	Sodium Vapor:												
4	150 Watt Sodium Vapor	141	21.10	92,421	54.8	\$ 1.66	\$ 3.44	\$ 5.10	\$ 8,629.20	\$ 8.90	\$ 3.80	\$ 15,058.80	\$ 6,429.60
5	150 Watt Sodium Vapor - ASU	1	0.15	657	54.8	\$ 1.66	\$ 3.44	\$ 5.10	\$ 61.20	\$ 8.90	\$ 3.80	\$ 106.80	\$ 45.60
6	250 Watt Sodium Vapor	408	102.06	446,982	91.3	\$ 2.76	\$ 5.73	\$ 8.49	\$ 41,567.04	\$ 12.93	\$ 4.44	\$ 63,305.28	\$ 21,738.24
7	250 Watt Sodium Vapor - ASU	7	1.75	7,665	91.3	\$ 2.76	\$ 5.73	\$ 8.49	\$ 713.16	\$ 12.93	\$ 4.44	\$ 1,086.12	\$ 372.96
8	Total Sodium Vapor	557	125.06	547,725					\$ 50,970.60			\$ 79,557.00	\$ 28,586.40
9													
10	Mercury Vapor:												
11	175 Watt Mercury Vapor	196	34.34	150,423	63.9	\$ 1.93	\$ 4.01	\$ 5.94	\$ 13,970.88	\$ 9.26	\$ 3.32	\$ 21,779.52	\$ 7,808.64
12	400 Watt Mercury Vapor	4	1.60	7,008	146.0	\$ 4.42	\$ 9.18	\$ 13.60	\$ 652.80	\$ 16.97	\$ 3.37	\$ 814.56	\$ 161.76
13	Total Mercury Vapor	200	35.94	157,431					\$ 14,623.68			\$ 22,594.08	\$ 7,970.40
14													
15	Metal Halide:												
16	250 Watt Metal Halide	258	64.50	282,510	91.3	\$ 2.76	\$ 5.73	\$ 8.49	\$ 26,285.04	\$ 15.33	\$ 6.84	\$ 47,461.68	\$ 21,176.64
17	250 Watt Metal Halide - ASU	3	0.75	3,285	91.3	\$ 2.76	\$ 5.73	\$ 8.49	\$ 305.64	\$ 15.33	\$ 6.84	\$ 551.88	\$ 246.24
18	400 Watt Metal Halide	364	145.53	637,306	146.0	\$ 4.42	\$ 9.18	\$ 13.60	\$ 59,404.80	\$ 19.54	\$ 5.94	\$ 85,350.72	\$ 25,945.92
19	400 Watt Metal Halide - ASU	5	2.00	8,760	146.0	\$ 4.42	\$ 9.18	\$ 13.60	\$ 816.00	\$ 19.54	\$ 5.94	\$ 1,172.40	\$ 356.40
20	Total Metal Halide	630	212.78	931,861					\$ 86,811.48			\$ 134,536.68	\$ 47,725.20
21													
22	Energy Charge Only (Town of Boone Owned Lighting):												
23	Sodium Vapor:												
24	150 Watt Sodium Vapor TOB	79	11.85	51,903	54.8			\$ 4.39	\$ 4,161.72	\$ 4.39	n/a	\$ 4,161.72	
25	250 Watt Sodium Vapor TOB	216	54.00	236,520	91.3			\$ 7.31	\$ 18,947.52	\$ 7.31	n/a	\$ 18,947.52	
26	400 Watt Sodium Vapor TOB	163	65.20	285,576	146.0			\$ 11.68	\$ 22,846.08	\$ 11.68	n/a	\$ 22,846.08	
27	750 Watt Sodium Vapor TOB	1	0.75	3,285	273.8			\$ 21.92	\$ 263.04	\$ 21.92	n/a	\$ 263.04	
28	Total Sodium Vapor	459	131.80	577,284					\$ 46,218.36			\$ 46,218.36	
29													
30	Mercury Vapor:												
31	175 Watt Mercury Vapor TOB	163	28.53	124,940	63.9			\$ 5.12	\$ 10,014.72	\$ 5.12	n/a	\$ 10,014.72	
32	400 Watt Mercury Vapor TOB	6	2.40	10,512	146.0			\$ 11.68	\$ 840.96	\$ 11.68	n/a	\$ 840.96	
33	Total Mercury Vapor	169	30.93	135,452					\$ 10,855.68			\$ 10,855.68	
34													
35	Metal Halide:												
36	250 Watt Metal Halide - TOB	1	0.25	1,095	91.3			\$ 7.31	\$ 87.72	\$ 7.31	n/a	\$ 87.72	
37	400 Watt Metal Halide - TOB	1	0.40	1,752	146.0			\$ 11.68	\$ 140.16	\$ 11.68	n/a	\$ 140.16	
38	Total Metal Halide	2	0.65	2,847					\$ 227.88			\$ 227.88	
39													

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Dec 22 2022

**Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Breakdown of Existing Lighting Charges**

Line	Light Type	# of Lights	kW Demand	kWh Energy	Monthly kWh per Light	Current Charges Based on COS Output from 2017 Rate Case							
						Monthly O&M Costs	Monthly Purchased Power Costs	Monthly Non-Investment Cost	Non-Investment Cost	Total Current Charge	Assumed Current Investment Cost	Total Current Rate Revenue	Assumed Investment Revenue
40	Total Schedule OL	2,017	537.16	2,352,599		\$ 0.030262	\$ 0.062846			\$ 209,707.68		\$ 293,989.68	\$ 84,282.00
41													
42	Schedule LEDL:												
43	Investment & Energy Charge:												
44	50 Watt Yard Light	4	0.20	876	18.3	\$ 0.55	\$ 1.15	\$ 1.70	\$ 81.60	\$ 4.07	\$ 2.37	\$ 195.36	\$ 113.76
45	96 Watt LED	4	0.38	1,646	35.0	\$ 1.06	\$ 2.20	\$ 3.26	\$ 156.48	\$ 6.85	\$ 3.59	\$ 328.90	\$ 172.42
46	101 Watt LED	4	0.40	1,770	36.9	\$ 1.12	\$ 2.32	\$ 3.44	\$ 165.12	\$ 6.85	\$ 3.41	\$ 328.90	\$ 163.78
47	110 Watt LED	7	0.77	3,373	40.2	\$ 1.22	\$ 2.52	\$ 3.74	\$ 314.16	\$ 6.85	\$ 3.11	\$ 575.57	\$ 261.41
48	119 Area Light LED (Shoebox)	97	11.55	50,594	43.4	\$ 1.31	\$ 2.73	\$ 4.04	\$ 4,702.56	\$ 9.98	\$ 5.94	\$ 11,616.72	\$ 6,914.16
49	119 Area Light LED (Shoebox) - ASU	1	0.12	521	43.4	\$ 1.31	\$ 2.73	\$ 4.04	\$ 48.48	\$ 9.98	\$ 5.94	\$ 119.76	\$ 71.28
50	162 Watt Cobra Head LED	12	1.96	8,575	59.1	\$ 1.79	\$ 3.72	\$ 5.51	\$ 793.44	\$ 11.06	\$ 5.55	\$ 1,592.64	\$ 799.20
51	Total Investment & Energy Charge	129	15.38	67,355					\$ 6,261.84			\$ 14,757.84	\$ 8,496.00
52													
53	Energy Charge Only (Town of Boone Owned Lighting):												
54	20 Watt LED TOB	1	0.02	88	7.3			\$ 0.44	\$ 5.28	\$ 0.44	n/a	\$ 5.28	
55	27 Watt LED TOB	17	0.46	2,010	9.9			\$ 0.63	\$ 128.52	\$ 0.63	n/a	\$ 128.52	
56	40 Watt LED TOB	25	1.00	4,380	14.6			\$ 0.94	\$ 282.00	\$ 0.94	n/a	\$ 282.00	
57	50 Watt LED TOB	3	0.15	657	18.3			\$ 1.13	\$ 40.68	\$ 1.13	n/a	\$ 40.68	
58	TOB 80 Watt LED	33	2.64	11,563	29.2			\$ 1.82	\$ 720.72	\$ 1.82	n/a	\$ 720.72	
59	92 Watt LED TOB	17	1.56	6,850	33.6			\$ 2.14	\$ 436.56	\$ 2.14	n/a	\$ 436.56	
60	100 Watt LED TOB	81	8.11	35,515	36.5			\$ 2.33	\$ 2,264.76	\$ 2.33	n/a	\$ 2,264.76	
61	106 Watt LED TOB	54	5.72	25,071	38.7			\$ 2.45	\$ 1,587.60	\$ 2.45	n/a	\$ 1,587.60	
62	TOB 110 Watt LED	20	2.20	9,636	40.2			\$ 2.51	\$ 602.40	\$ 2.51	n/a	\$ 602.40	
63	120 Watt LED TOB	17	2.04	8,935	43.8			\$ 2.77	\$ 565.08	\$ 2.77	n/a	\$ 565.08	
64	TOB 136 Watt LED	2	0.27	1,191	49.6			\$ 3.14	\$ 75.36	\$ 3.14	n/a	\$ 75.36	
65	150 Watt LED TOB	173	25.95	113,661	54.8			\$ 3.46	\$ 7,182.96	\$ 3.46	n/a	\$ 7,182.96	
66	TOB 180 Watt LED	24	4.32	18,922	65.7			\$ 4.15	\$ 1,195.20	\$ 4.15	n/a	\$ 1,195.20	
67	Total Energy Charge Only	467	54.45	238,480					\$ 15,087.12			\$ 15,087.12	
68													
69	Total Schedule LEDL	596	69.83	305,835					\$ 21,348.96			\$ 29,844.96	\$ 8,496.00
70													
71	Pole Charges:												
72	Fiberglass Pole	11								\$ 6.81	\$ 898.92	\$ 898.92	
73	Wood Pole	8								\$ 3.40	\$ 326.40	\$ 326.40	
74	Total Pole Charges	19										\$ 1,225.32	\$ 1,225.32
75													
76	Total Lighting	2,613	606.99	2,658,434					\$ 231,056.64			\$ 325,059.96	\$ 94,003.32

Docket No. E-34, Sub 54
 Appalachian State University
 d/b/a New River Light and Power Company
 Renewable Energy Net Billing Rider
 For Twelve Months Ended December 31, 2021

DOCKET E-34 SUB 54

Exhibit (REH-19A)

Page 1 of 1

Line	Description	Actual Billing Data	CP Peaks as % of Max Output
1	Production from Customer Solar Generation [1]:		
2	Energy Produced (kWh)	50,414,790	n/a
3	Output at BREMCO CP Demand (kW)	11,790	29.12%
4	Output at DEC CP Demand (kW)	11,790	29.12%
5	Output at CPP CP Demand (kW)	10,540	26.03%
6	Max Output (kW)	40,485	100.00%

Description	From Exhibit REH-16: Rate Design		
	Proposed Residential Rates	Unadjusted Residential Billing Determinants	Unadjusted Proposed Residential Rate Revenues

Calculation of Charge to Collect Costs NOT Avoided from Customer Solar Generation						
Solar Generation Output	Adjusted Residential Billing Determinants	Adjusted Proposed Residential Rate Revenues	Unrecovered Costs	Name Plate Solar Generation Capacity	Percent of Unrecovered Costs to Collect	Monthly Charge per Name Plate Capacity

7	Proposed Residential Rate:											
8	Basic Facilities Charge	\$ 14.50	7,142	\$ 1,242,766		7,142	\$ 1,242,766	\$ -	40,485	100.00%	\$ -	
9	Energy Charge:											
10	NRLP Distribution Related	\$ 0.032593	61,988,218	\$ 2,020,382	50,415	61,937,803	\$ 2,018,739	\$ (1,643)	40,485	100.00%	\$ 3.38	
11	Wholesale Power Supply Charge:											
12	BREMCO Distribution Related	\$ 0.007939	61,988,218	\$ 492,126	50,415	61,937,803	\$ 491,726	\$ (400)	40,485	70.88%	\$ 0.58	
13	DEC Transmission Related	\$ 0.003393	61,988,218	\$ 210,351	50,415	61,937,803	\$ 210,180	\$ (171)	40,485	70.88%	\$ 0.25	
14	CPP Production Demand Related	\$ 0.025459	61,988,218	\$ 1,578,131	50,415	61,937,803	\$ 1,576,848	\$ (1,283)	40,485	73.97%	\$ 1.95	
15	CPP Production Energy Related	\$ 0.043217	61,988,218	\$ 2,678,965							\$ -	
16	Total Wholesale Power Supply	\$ 0.080008		\$ 4,959,574							\$ 2.79	
17	PPAC Energy	\$ 0.035893	61,988,218	\$ 2,224,943							\$ -	
18	Total Residential Service			\$ 10,447,665							\$ 6.17	
											Monthly kW Charge for Customer's Installed Name Plate Capacity	\$ 6.17

Notes:

[1] As taken from hourly load profiles from all solar output for 12 months ended December 31, 2021.

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Avoided Cost for Buy All / Sell All of Renewable Energy
For Twelve Months Ended December 31, 2021

DOCKET E-34 SUB 54

Exhibit (REH-19B)
Page 1 of 1

Line	Description	Actual Billing Data	CP Peaks as % of Max Output
1	Production from Customer Solar Generation [1]:		
2	Energy Produced (kWh)	50,414,790	n/a
3	Output at BREMCO CP Demand (kW)	11.790	29.12%
4	Output at DEC CP Demand (kW)	11.790	29.12%
5	Output at CPP CP Demand (kW)	10.540	26.03%
6	Max Output (kW)	40.485	100.00%

Description	From Exhibit REH-16: Rate Design		
	Proposed Residential Rates	Unadjusted Residential Billing Determinants	Unadjusted Proposed Residential Rate Revenues
7 Proposed Residential Rate:			
8 Basic Facilities Charge	\$ 14.50	7,142	\$ 1,242,766
9 Energy Charge:			
10 NRLP Distribution Related	\$ 0.032593	61,988,218	\$ 2,020,382
11 Wholesale Power Supply Charge:			
12 BREMCO Distribution Related	\$ 0.007939	61,988,218	\$ 492,126
13 DEC Transmission Related	\$ 0.003393	61,988,218	\$ 210,351
14 CPP Production Demand Related	\$ 0.025459	61,988,218	\$ 1,578,131
15 CPP Production Energy Related	\$ 0.043217	61,988,218	\$ 2,678,965
16 Total Wholesale Power Supply	\$ 0.080008		\$ 4,959,574
17 PPAC Energy	\$ 0.035893	61,988,218	\$ 2,224,943
18 Total Residential Service			\$ 10,447,665

Calculation of Wholesale Power Supply Costs Avoided		
Description of Wholesale Power Costs	Percent of Wholesale Power Supply Costs Avoided	Avoided Cost (\$/kWh)
Wholesale Power Supply Charge:		
BREMCO Distribution Related	29.12%	\$ 0.002312
DEC Transmission Related	29.12%	\$ 0.000988
CPP Production Demand Related	26.03%	\$ 0.006628
CPP Production Energy Related	100.00%	\$ 0.043217
Total Wholesale Power Supply		\$ 0.053146
PPA Energy	100.00%	\$ 0.035893
Total Avoided Cost as \$/kWh		\$ 0.089039

Notes:

[1] As taken from hourly load profiles from all solar output for 12 months ended December 31, 2021.

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
PPAC Adjustment for Rate Design Purposes

Description	As Filed in Docket No. E-34, Sub 56	Base Rate PP Costs Adjusted
2023 Purchased Power Costs to Recover	\$ 19,814,840	\$ 19,814,840
<i>Current Purchased Power Included in Base Rates</i>	<i>\$ 0.062846</i>	<i>\$ 0.072692</i>
Pur. Pwr. Costs Recovered in Base Rates	\$ 13,332,615	\$ 15,421,418
Excess Purchased Power Costs to be Recovered	\$ 6,482,226	\$ 4,393,423
Estimated 2023 kWh Sales	212,147,386	212,147,386
Levelized Rate to Increase Purchased Power Base Rate (\$/'23E Sales)	\$ 0.030555	\$ 0.020709
Under-Recovery as of December 31, 2022	\$ 3,210,741	\$ 3,210,741
Interest on Under-Recovery	\$ -	\$ -
Total Amount to be Recovered from Consumers	\$ 3,210,741	\$ 3,210,741
Levelized Experience Modification Factor (\$/'23E Sales)	\$ 0.015134	\$ 0.015134
Change in Rates for 2023 PPA	\$ 0.045689	\$ 0.035843
Change in Rates for 2023 PPA adjusted for Reg. Fee	\$ 0.045753	\$ 0.035893
Current PPA Factor Grossed up for Reg. Fee	\$ 0.021602	\$ 0.021602
Net Increase in PPA Factor Adjusted for Regulatory Fee	\$ 0.024151	\$ 0.014291
Revenue Increase from Current Rates Due Solely to PPA	\$ 5,123,572	\$ 3,031,798

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Summary of Allocated Cost of Service
Developed from Detail Contained in Exhibit REH-14

Line	Cost Description	Total System	Residential	Commercial Non-Demand	Commercial Demand	ASU Campus	Security Lighting
1	NRLP Distribution Related	\$ 8,281,435	\$ 3,085,897	\$ 1,067,059	\$ 2,382,910	\$ 1,533,161	\$ 212,409
2	BREMCO Transmission Related	\$ 1,478,845	\$ 465,397	\$ 183,655	\$ 548,339	\$ 281,454	\$ -
3	DEC Transmission Related	\$ 686,169	\$ 198,926	\$ 85,738	\$ 256,577	\$ 144,928	\$ -
4	CPP Production Demand Related	\$ 4,375,200	\$ 1,492,417	\$ 647,789	\$ 1,933,444	\$ 301,550	\$ -
5	CPP Production Energy Related	\$ 8,399,893	\$ 2,533,461	\$ 950,464	\$ 2,977,390	\$ 1,829,928	\$ 108,650
6	Total Costs	\$ 23,221,543	\$ 7,776,098	\$ 2,934,706	\$ 8,098,660	\$ 4,091,020	\$ 321,059

Docket No. E-34, Sub 54
Appalachian State University
d/b/a New River Light and Power Company
Summary of Fixed Cost per Customers Served
Developed from Detail Contained in Exhibit REH-14

Line	Description	Residential	Commercial Non-Demand	Commercial Demand	ASU Campus
1	Number of Customers	7,142	1,465	274	1
2					
3	<u>Monthly Cost per Customer:</u>				
4	NRLP Distribution Related	\$ 36.00	\$ 60.70	\$ 724.51	\$ 127,763.39
5	BREMCO Transmission Related	\$ 5.43	\$ 10.45	\$ 166.72	\$ 23,454.52
6	DEC Transmission Related	\$ 2.32	\$ 4.88	\$ 78.01	\$ 12,077.36
7	CPP Production Demand Related	\$ 17.41	\$ 36.85	\$ 587.85	\$ 25,129.13
8	Total	\$ 61.17	\$ 112.88	\$ 1,557.09	\$ 188,424.40

To David Jamison
Appalachian State University

Date June 26, 2019

From Donald E. Rich, Jr.
Shawn M. Hutchinson
KPMG LLP

Ref Public Utility UBI review

Facts:

The New River Light and Power Company ("NRLP"), which is division of Appalachian State University (ASU, or, the "University"), provides electricity to both the University's campus and the area surrounding Boone, North Carolina.

In 1971 the North Carolina General Assembly merged sixteen of the State-owned institutions of higher education, including the University, into one multi-campus university called "the University of North Carolina." The multi-campus university is governed by the Board of Governors of the University of North Carolina and is an integral part of the State of North Carolina. As an integral part of the University of North Carolina system, the University is also an integral part of the State of North Carolina.

Issue:

Is the revenue generated by electricity sold to the general public subject to unrelated business income tax (UBIT) as unrelated business income ("UBI")?

Conclusion:

The revenue generated by electricity sold to the general public more likely than not is UBI.

Discussion:

N.C. Gen Stat. §116-35 provides that institutions operating electric power plants as of October 30, 1971 are authorized to continue such operation and to sell any excess electricity at rates approved by the Utilities Commission. Additionally, any net profit derived from operating a power plant is to be paid into a permanent endowment fund held for the institution. While N.C. Gen Stat. §116-35 gives permission for the University to operate a power plant, it does not appear to mandate that the University continue operating a power plant in order to perform an essential government function.

Internal Revenue Code ("IRC") §115(1) provides that gross income does not include income derived from any public utility or the exercise of any essential governmental function and accruing to a State or any political subdivision thereof.

Integral parts of universities are not subject to federal income tax under the doctrine of implied statutory immunity, not because they exclude income under section 115(1). *See, e.g.*, Notice 2019-09, Q/A-5. The IRS has on a number of occasions, including in the recently issued Notice 2019-09 (regarding the excise tax under section 4960), concluded that a state university cannot be both an integral part of a state and at the same time an entity eligible to exclude income under IRC §115(1).

IRC §511(a)(1) imposes a tax on the unrelated business taxable income ("UBTI") of state colleges or universities.

The Internal Revenue Service ("IRS") has previously issued a Technical Advice Memorandum ("TAM"), published as TAM 7904006, where the IRS analyzed the interplay between IRC §115(1) and IRC §511(a)(2)(B), specifically addressing the operation of a public utility by a state university.

In this TAM the IRS first reviewed the legislative history of IRC §511(a)(2)(B):

"The legislative history indicates that Congress enacted... section 511(a)(2)(B) to tax the unrelated business income of state colleges and universities that did not have exemption rulings under...section 501(c), but which were, nevertheless, exempt from tax on their income because they were agencies or instrumentalities of the state. Congress wanted to place these entities on a parity with colleges and universities that are exempt under section 501(c)(3)...See S. Rep. No. 781, 82d Cong., 1st Sess., pt. 2 (1951), 1951-2 C.B. 545, 534-85."

Based upon such review, the IRS conceded that:

"...there is no indication in the legislative history or the language of section 511(a)(2)(B) to indicate that Congress intended to completely negate the applicability of section 115(1) to governmental colleges and universities whose income accrues to a state or political subdivision."

Consequently, the IRS concluded that:

"...section 511(a)(2)(B) should be interpreted to merely limit the application of section 115(1) in the case of governmental colleges and universities that have unrelated business income...rather than to completely supersede the applicability of section 115(1) in any case involving a governmental college or university."

"To clarify our view of the interrelationship of these statutory provisions, consider the example of a college or university within the scope of section 511(a)(2)(B) that derives income from the exercise of an essential governmental activity, with such income accruing to a state or political subdivision of a state. We believe that this income would constitute related business income that would not be taxable under section 511(a)(2)(B) because the income would be derived from the exercise or performance of a purpose or function described in section 501(c)(3), as that section has been construed by the Service to include lessening of the burdens of government. Furthermore, we believe that income would also be excludable from gross income under section 115(1)."

The IRS then ultimately ruled in the TAM that income from providing utility services to the general public *was* taxable based upon the following analysis:

- 1) Providing utility services is not an essential governmental activity.
- 2) A determination that IRC §115(1) does not apply to income from engaging in activities that are not substantially related to the exercise of section 501(c)(3) purposes is necessary if IRC §511(a)(2)(B) is to have any validity.

By referencing the applicability of IRC §115(1) and drawing its conclusion that a state university deriving income from performing an essential governmental function does not have unrelated business income while a state university deriving income from providing public utility services does have unrelated business income, the IRS appeared to ignore the "or" in IRC §115(1). In one of the IRS's statements above, the Service notes that the UBTI provisions of 511 do not limit the applicability of IRC §115(1) in the case of state colleges and universities. In essence, the IRS seemed to be saying that IRC §115(1) operated as a subset of section 511, and if income was excluded under IRC §115(1) it should be

excluded under section 511. If that was the case, the subsequent analysis in the TAM as to whether the provision of utility services is an essential governmental activity appeared to be irrelevant. Further, to conclude as the IRS did in its TAM that exempting utility income if the utility service is provided directly by a state or political subdivision while taxing such income as UBTI if the service was performed by a state university seemed to be an illogical conclusion.

However, in General Counsel Memorandum (“GCM”) 37657, the IRS examined the analysis and conclusions in TAM 7904006 and concluded that because “the University is [an integral part], rather than a separate corporation or trust, we necessarily must conclude that section 115 does not apply.” *See also* the recently issued Notice 2019-09, Q/A-5 (“[A] state, political subdivision of a state, or integral part of a state or political subdivision, often referred to as a ‘governmental unit,’ does not meet the requirements to exclude income from gross income under section 115(1) because section 115(1) does not apply to income from an activity that the state conducts directly, rather than through a separate entity.”). GCM 37657 considered the application of IRC §511(a)(2)(B) to integral parts and concluded that UBIT “should be applied in the case at bar with respect to all activities of [the integral part] that are not substantially related to the exercise or performance of any purpose or function described in IRC §501(c)(3) or carried on primarily for the convenience of its students, officers, or employees. Thus, the provision of . . . utility services to the general public would, in our opinion, be subject to [UBIT].” *See also* Rev. Rul. 87-2 (noting that an example of a statutory exception to the doctrine of implied statutory immunity is found in IRC §511(a)(2)(B)). Though inapplicable to an integral part, the IRS then discussed whether it would reach a different result if the university was not an integral part, but instead excluded income under IRC §115(1). The GCM made clear that the conclusion would be the same:

Section 115(1) would exclude the income derived . . . from any public utility and accruing to [the university], but section 511(a)(2)(B) would call for the application of the unrelated business income tax with respect to such income to the extent the income is derived from utility services provided the general public, just as the tax would be applied in case of a private college or university. . . . We hereby affirm this conclusion and, thus, believe that our conclusion . . . would obtain even [if the university excluded income under section 115].

While this wording continues to be a bit confusing, the IRS appears to be concluding that even if a state university was not an integral part of the state, and therefore could exclude income under IRC §115(1), it would nevertheless still be subject to UBIT under IRC section 511. And further, if such income at issue were being derived from the operation of a public utility, that income would not be considered to be from performing an essential governmental function and as such, would constitute UBTI. In contrast, the IRS noted that “we believe that [income derived from the exercise of an essential governmental function that accrues to a state or political subdivision of a state] would constitute related business income that would not be taxable under section 511(a)(2)(B) because the income would be derived from the exercise or performance of [a] purpose or function described in section 501(c)(3), as that section has been construed by the Service – the lessening of the burdens of government.” So, income derived by a university that performs an essential governmental function and thereby lessens the burdens of government is not subject to UBIT. And, at least according to GCM 37657, the operation of a public utility is not an essential governmental function. Therefore, a state university’s operation of a public utility was subject to UBIT.

In applying the analysis above to ASU, it should be first noted that despite the somewhat confusing statements in PLR 7904006, the IRS has on a number of occasions, including during the current year in Notice 2019-09, concluded that a state university cannot be both an integral part of a state and at the same time an entity eligible to exclude income under IRC §115(1). ASU appears to be an integral part of the state of North Carolina, and therefore, cannot exclude income under IRC §115(1). Therefore, any reference to a public utility (as well as any authorities examining the intersection of IRC §115(1) and §511(a)(2)(B)) are not relevant to ASU. Second, as a state university, ASU is subject to UBIT under IRC §511. To exclude income from NRLP from the definition of UBTI, ASU would have to show that the generation of power is substantially related to its exempt purposes. One way to do that would be to show that the generation of power by ASU is considered to be an essential governmental function for the state of North Carolina, and therefore is lessening the burdens of government. As noted above, however, the

statute authorizing ASU to operate NRLP seems to simply authorize its operation, not mandate it or encourage its operation to lessen the burden of state government. While the statute does require that any net profits from its operation be placed in an endowment fund, mandating the use of the funds is not the same as mandating the generation of the funds. If the operation of NRLP cannot be considered lessening the burdens of government, and thus income therefrom is not substantially related function income, it is then income from an activity unrelated to ASU's exempt purposes. Thus, absent a conclusion that ASU is performing an essential governmental function through the operation of a public utility, it is more likely than not that the income from NRLP is UBTI.

In preparing this advice, we considered tax authorities that are subject to change, retroactively, prospectively, or both, and any such changes could affect the conclusions stated herein. This advice is based on the completeness and accuracy of any one or more of the facts, assumptions, and client representations on which we relied, relating to the matters to which this advice is addressed. Unless separately agreed in writing, we will not update our advice for subsequent changes or modifications to the law, regulations, or to the judicial and administrative interpretations thereof, nor to take into account your correcting, updating, or providing new or additional facts or information you supplied or any assumptions on which we relied in preparing our advice.

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