

Docket No. E-34, Sub 46
Keanochian State University
d/b/a New River Light and Power Company
Current and Settlement Rate Order
For Twelve Months Ended December 31, 2016

Line	Description	Billing Structure/Code	Current Rate	Current Rate Increase	Settlement Rate	Settlement Rate Increase	Percent Increase
1	Residential Service						
2	Basic Facilities Charge		6.000 \$	6.000 \$	467.077 \$	12.100 \$	100.00%
3	Customer Growth		85.8 \$	6.000 \$	6.478 \$	12.100 \$	6.478
4	Energy Charge (Including Public Staff Adjustment)						
5	Base Energy - All kWh	53,700.00	0.077036 \$	3,866.792 \$	0.000044 \$	4,796.430 \$	23.98%
6	PPA Energy - All kWh		0.014454 \$	768.064 \$		768.064 \$	100.00%
7	Total Energy - All kWh		0.091490 \$	4,634.856 \$	0.000044 \$	4,796.430 \$	1.01%
8	Customer Growth Charge and Usage						
9	Customer Growth - kWh	741,803	0.087044 \$	64,570 \$	0.000044 \$	68,705 \$	2.22%
10	Usage - kWh	(1,025,802)	0.087044 \$	(89,290) \$	0.000044 \$	(92,367) \$	(1.0777)
11	Usage - kWh	1,453,101	0.087044 \$	126,000 \$	0.000044 \$	130,861 \$	4.36%
12	Total Demand Service			6,210.29 \$		6,845.29 \$	11.20%
13	Commercial Service						
14	Basic Facilities Charge		4,004 \$	8.71 \$	258,170 \$	17.42 \$	100.00%
15	Customer Growth		3 \$	8.71 \$	345 \$	17.42 \$	680
16	Energy Charge (Including Public Staff Adjustment)						
17	Base Energy - All kWh	24,086,561	0.067880 \$	1,632,638 \$	0.000083 \$	2,088,162 \$	27.70%
18	PPA Energy - All kWh		0.014454 \$	768.064 \$		768.064 \$	100.00%
19	Total Energy - All kWh		0.082334 \$	1,633,406 \$	0.000083 \$	2,088,930 \$	1.31%
20	Customer Growth and Usage						
21	Customer Growth - kWh	12,968	0.082334 \$	1,068 \$	0.000083 \$	1,101 \$	2.82
22	Usage - kWh	16,000	0.082334 \$	1,317 \$	0.000083 \$	1,332 \$	1.06
23	Total Commercial Demand Service			2,385.19 \$		2,412.19 \$	11.20%
24	Industrial Service						
25	Basic Facilities Charge (Including Public Staff Adj.)		252 \$	11.61 \$	35,039 \$	23.22 \$	702.78
26	Customer Growth		23 \$	11.61 \$	3,135 \$	23.22 \$	6,209
27	Energy Charge (Including Public Staff Adjustment)						
28	All kWh	38,200	8.27 \$	1,324,406 \$	8.27 \$	1,324,406 \$	-
29	Customer Growth		8.27 \$	136,209 \$	8.27 \$	136,209 \$	-
30	Energy Charge (Including Public Staff Adjustment)						
31	Base Energy - All kWh	50,782,536	0.031205 \$	1,592,453 \$	0.004322 \$	3,021,538 \$	17.94%
32	PPA Energy - All kWh		0.014454 \$	768.064 \$		768.064 \$	100.00%
33	Total Energy - All kWh		0.045659 \$	1,593,221 \$	0.004322 \$	3,022,302 \$	28.09%
34	Customer Growth and Usage						
35	Customer Growth - kWh	1,051,041	0.045659 \$	47,807 \$	0.004322 \$	45,266 \$	10.59
36	Usage - kWh	18,405	0.045659 \$	840 \$	0.004322 \$	800 \$	(1.08)
37	Total Commercial Demand High Load Factor Service			6,164.62 \$		6,164.62 \$	11.20%
38	Public Staff Adjustment						
39	Basic Facilities Charge (Including Public Staff Adj.)		17 \$	11.61 \$	2,368 \$	23.22 \$	4,737
40	Customer Growth		- \$	11.61 \$	- \$	23.22 \$	-
41	Energy Charge (Including Public Staff Adjustment)						
42	All kWh	38,604	8.27 \$	302,715 \$	10.00 \$	386,040 \$	63.32%
43	Customer Growth		8.27 \$	302,715 \$	10.00 \$	386,040 \$	63.32%
44	Energy Charge (Including Public Staff Adjustment)						
45	Base Energy - All kWh	38,679,906	0.030317 \$	1,169,838 \$	0.001800 \$	1,019,215 \$	16.84%
46	PPA Energy - All kWh		0.014454 \$	768.064 \$		768.064 \$	100.00%
47	Total Energy - All kWh		0.044771 \$	1,170,606 \$	0.001800 \$	1,019,983 \$	9.18%
48	Customer Growth and Usage						
49	Customer Growth - kWh	-	0.044771 \$	- \$	0.001800 \$	- \$	-
50	Usage - kWh	-	0.044771 \$	- \$	0.001800 \$	- \$	-
51	Total Commercial Demand High Load Factor Service			2,288.09 \$		2,288.09 \$	11.20%
52	ASU Service						
53	Basic Facilities Charge (Including Public Staff Adj.)		107 \$	11.61 \$	14,941 \$	17.42 \$	100.00%
54	Customer Growth		- \$	11.61 \$	- \$	17.42 \$	-
55	Energy Charge (Including Public Staff Adjustment)						
56	All kWh (KCP at Customer Premises)	90,801	8.27 \$	750,715 \$	10.00 \$	860,940 \$	63.32%
57	All kWh (KCP at ASU Substation)	90,801	8.27 \$	750,715 \$	10.00 \$	860,940 \$	63.32%
58	Energy Charge (Including Public Staff Adjustment)						
59	Base Energy - All kWh	48,084,076	0.030317 \$	1,469,838 \$	0.001800 \$	1,019,215 \$	16.84%
60	PPA Energy - All kWh		0.014454 \$	768.064 \$		768.064 \$	100.00%
61	Total Energy - All kWh		0.044771 \$	1,470,606 \$	0.001800 \$	1,019,983 \$	9.18%
62	Customer Growth and Usage						
63	Customer Growth - kWh	108,162	0.044771 \$	4,820 \$	0.001800 \$	4,536 \$	10.59
64	Usage - kWh (at Customer Premises)	201,112	0.044771 \$	9,040 \$	0.001800 \$	8,540 \$	10.59
65	Usage - kWh (at ASU Substation)	187,226	0.044771 \$	8,391 \$	0.001800 \$	7,991 \$	10.59
66	Total ASU Service			6,760.85 \$		6,760.85 \$	11.20%
67	Security Service						
68	Line Charge						
69	175 West MV	242	7.87 \$	22,843 \$	9.26 \$	26,895 \$	17.72%
70	400 West MV	1	34.05 \$	841 \$	10.07 \$	1,018 \$	17.72%
71	150 West SV	146	7.99 \$	13,397 \$	8.90 \$	15,538 \$	2.29%
72	250 West SV	446	20.86 \$	57,297 \$	22.89 \$	62,239 \$	17.71%
73	400 West MV	433	36.30 \$	83,734 \$	39.34 \$	99,185 \$	18.45%
74	250 West MV	242	13.39 \$	38,766 \$	15.33 \$	44,702 \$	5.93%
75	100 West SV TOB	5	2.28 \$	10	2.81 \$	10	27.42%
76	175 West SV TOB	89	3.13 \$	3,449 \$	4.39 \$	4,889 \$	33.93%
77	175 West MV TOB	882	3.87 \$	33,864 \$	5.12 \$	38,489 \$	34.44%
78	250 West SV TOB	171	5.54 \$	11,530 \$	7.31 \$	13,176 \$	14.80%
79	400 West MV TOB	11	8.91 \$	1,170 \$	11.68 \$	1,342 \$	16%
80	400 West SV TOB	420	8.91 \$	45,486 \$	11.68 \$	60,129 \$	31.15%
81	750 West SV TOB	1	36.71 \$	602 \$	11.67 \$	780 \$	187
82	Rate Change						
83	275 West MV		2.08 \$	2,148 \$	- \$	- \$	(14.40)
84	400 West MV		2.38 \$	343 \$	- \$	- \$	(14.40)
85	250 West SV		2.18 \$	4,779 \$	- \$	- \$	(12.78)
86	250 West SV		1.32 \$	7,693 \$	- \$	- \$	(7.69)
87	400 West MV		2.38 \$	12,101 \$	- \$	- \$	(12.10)
88	250 West MV		1.12 \$	4,400 \$	- \$	- \$	(4.40)
89	100 West SV TOB		0.51 \$	13	- \$	- \$	(13)
90	150 West SV TOB		1.82 \$	1,079 \$	- \$	- \$	(1,079)
91	175 West SV TOB		1.08 \$	5,956 \$	- \$	- \$	(5,956)
92	250 West SV TOB		1.32 \$	3,146 \$	- \$	- \$	(3,146)
93	400 West MV TOB		2.38 \$	315 \$	- \$	- \$	(315)
94	400 West SV TOB		2.38 \$	12,171 \$	- \$	- \$	(12,171)
95	750 West SV TOB		4.47 \$	181 \$	- \$	- \$	(181)
96	Total Charge						
97	175 West MV		8.91 \$	25,991 \$	9.26 \$	28,991 \$	3.40%
98	400 West MV		36.40 \$	844 \$	39.37 \$	1,018 \$	34%
99	150 West SV		8.90 \$	15,087 \$	8.90 \$	15,538 \$	3.40%
100	250 West SV		12.10 \$	65,130 \$	12.10 \$	67,239 \$	3.40%
101	400 West MV		38.46 \$	95,825 \$	39.34 \$	99,185 \$	3.40%
102	250 West MV		14.81 \$	43,186 \$	15.33 \$	44,702 \$	3.51%
103	100 West SV TOB		2.81 \$	47	2.81 \$	10	2
104	150 West SV TOB		4.13 \$	4,528 \$	4.39 \$	4,889 \$	3.60
105	175 West MV TOB		4.95 \$	37,879 \$	5.12 \$	38,489 \$	6.54
106	250 West SV TOB		7.10 \$	14,637 \$	7.31 \$	15,176 \$	5.10
107	400 West MV TOB		12.10 \$	1,400 \$	11.68 \$	1,342 \$	12
108	400 West SV TOB		11.29 \$	58,121 \$	11.68 \$	60,129 \$	2.00%
109	750 West SV TOB		21.18 \$	762 \$	21.62 \$	780 \$	27
110	Estimated kWh Usage		8,454,203				
111	Total Security Service			24.69 \$		2,469 \$	3.40%
112	Public Staff						
113	Total Customer Residential Security Adjustment		4,400				
114	Total kWh Usage		200,454,876				
115	Total Non-Revenue			16,107,711		16,796,939	33.40%
116	Total PPA Revenues			2,946,476		2,946,476	100.00%
117	Total Revenues			17,054,187		19,743,399	10.00%
118	Facilities Charge			2,742,239		2,742,239	207.00%
119	Demand Charge			1,962,439		2,881,232	47.33%
120	Energy Charge			14,052,052		13,157,470	(6.43%)

Public Staff Target			
Classification	Cost	Unit Cost	% Change

Total	\$	1,847,049	12.20%
-------	----	-----------	--------

From current PPA filed with NERC January 18, 2017

5. 0.004408 Increase in Base Rates for 2017 PPA adjusted for Reg. Fee
6. 0.002042 Current Base Rates PPA Factor Increased up for Reg. Factor
7. 0.004177 Net Increase in PPA Factor Adjusted for Gross Receipts Tax and Regulatory Fee

Total	\$	2,412,386	
-------	----	-----------	--

Total	\$	4,842,160	
-------	----	-----------	--

Total	\$	1,386,180	
-------	----	-----------	--

Total	\$	3,946,865	
-------	----	-----------	--

Total	\$	3,946,865	0.00%
-------	----	-----------	-------

Total	\$	1,790,674	17.51
-------	----	-----------	-------

Total	\$	1,101,008	0.002303
-------	----	-----------	----------

Total	\$	1,075,223	10.36
-------	----	-----------	-------

Assumptions for Meter Model					
Month	Rate	Rate	Rate	Rate	Rate
Jan	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Feb	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Mar	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Apr	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
May	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Jun	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Jul	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Aug	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Sep	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Oct	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Nov	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041
Dec	1,462,127	1,716,041	1,716,041	1,716,041	1,716,041

Actual	Target	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate	Rate
--------	--------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

Docket No. E-34, Sub 46
Appalachian State University
d/b/a New River Light and Power Company
Rate of Return by Class
For Twelve Months Ended December 31, 2016

Line	Description		NRLP Retail	RES	G	GL	GLH	ASU	SL
1	Total Operating Revenue		\$ 17,116,975	\$ 5,258,312	\$ 2,159,688	\$ 4,319,266	\$ 1,238,687	\$ 3,797,354	\$ 343,668
1.1	Sales Revenue		\$ 17,053,787	\$ 5,210,262	\$ 2,149,570	\$ 4,314,813	\$ 1,238,609	\$ 3,796,865	\$ 343,668
1.2	Other Revenue		\$ 63,188	\$ 48,050	\$ 10,118	\$ 4,453	\$ 78	\$ 489	\$ -
2	Revenue Increase		\$ 1,777,512	\$ 662,892	\$ 268,202	\$ 529,776	\$ 151,424	\$ 153,269	\$ 11,947
2.1	Sales Revenue Increase		\$ 1,743,208	\$ 636,807	\$ 262,709	\$ 527,359	\$ 151,382	\$ 153,004	\$ 11,947
2.2	Other Revenue Increase		\$ 34,304	\$ 26,086	\$ 5,493	\$ 2,418	\$ 42	\$ 265	\$ -
3	Net Income Before Increase		\$ (18,757)	\$ (248,939)	\$ 14,703	\$ (110,425)	\$ (31,706)	\$ 328,584	\$ 29,025
4	Change in Net Income	L2 * Retention Factor	\$ 1,773,012	\$ 661,197	\$ 267,531	\$ 528,425	\$ 151,039	\$ 152,878	\$ 11,942
5	Total Net Income	L3 + L4	\$ 1,754,255	\$ 412,258	\$ 282,234	\$ 418,000	\$ 119,333	\$ 481,462	\$ 40,967
6	Rate Base		\$ 26,885,114	\$ 9,738,267	\$ 3,313,124	\$ 6,895,794	\$ 1,580,914	\$ 4,933,293	\$ 423,722
7	Rate of Return (before change)	L3 / L6	-0.07%	-2.56%	0.44%	-1.60%	-2.01%	6.66%	6.85%
8	Rate of Return Index (before change)	L7 (class) / L7 (NRLP Retail)	1.00	36.64	-6.36	22.95	28.75	-95.47	-98.18
9	Rate of Return (after change)	L5 / L6	6.525%	4.23%	8.52%	6.06%	7.55%	9.76%	9.67%
10	Rate of Return Index (after change)	L9 (class) / L9 (NRLP Retail)	1.00	0.65	1.31	0.93	1.16	1.50	1.48
11	Percent Change in Sales Revenue	L2.1 / L1.1	10.22%	12.22%	12.22%	12.22%	12.22%	4.03%	3.48%

Docket No. E-34, Sub 46
Appalachian State University
d/b/a New River Light and Power Company
Settlement Monthly Charges for New LED Lighting

Line	Light and Pole Costs	Cost			Life	ROR	Monthly Cost
		Material	Installation	Total			
1	<u>Monthly Light Costs:</u>						
2	150 Watt Flood Light	\$ 571.59	\$ 160.94	\$ 732.53	20	6.53%	\$5.47
3	266 Watt Flood Light	\$ 806.80	\$ 160.94	\$ 967.74	20	6.53%	\$7.23
4	162 Watt Cobra Head	\$ 583.35	\$ 160.94	\$ 744.29	20	6.53%	\$5.56
5	119 Area Light (Shoe Box)	\$ 639.78	\$ 160.94	\$ 800.72	20	6.53%	\$5.98
6	50 Watt Yard Light	\$ 159.89	\$ 160.94	\$ 320.83	20	6.53%	\$2.40
5	<u>Monthly Pole Cost:</u>						
6	30' Wood Pole	\$ 122.38	\$ 413.88	\$ 536.26	30	6.53%	\$3.40
7	Decorative Fiberglass Pole	\$ 659.96	\$ 413.88	\$ 1,073.84	30	6.53%	\$6.81

O&M Costs		Watts	Daily Burn (Hrs)	Monthly kWh	O&M Cost / kWh	Monthly O&M Cost
8	<u>Monthly O&M Costs:</u>					
9	150 Watt Flood Light	150	12	55	\$ 0.03026	\$ 1.66
10	266 Watt Flood Light	266	12	97	\$ 0.03026	\$ 2.94
11	162 Watt Cobra Head	162	12	59	\$ 0.03026	\$ 1.79
12	119 Area Light (Shoe Box)	119	12	43	\$ 0.03026	\$ 1.30
13	50 Watt Yard Light	50	12	18	\$ 0.03026	\$ 0.54

Purchased Power Costs		Watts	Daily Burn (Hrs)	Monthly kWh	PP Cost / kWh	Monthly PP Cost
14	<u>Monthly Purchased Power Costs:</u>					
15	150 Watt Flood Light	150	12	55	\$ 0.062846	\$ 3.46
16	266 Watt Flood Light	266	12	97	\$ 0.062846	\$ 6.10
17	162 Watt Cobra Head	162	12	59	\$ 0.062846	\$ 3.71
18	119 Area Light (Shoe Box)	119	12	43	\$ 0.062846	\$ 2.70
19	50 Watt Yard Light	50	12	18	\$ 0.062846	\$ 1.13
20	TOB 80 Watt LED	80	12	29	\$ 0.062846	\$ 1.82
21	TOB 110 Watt LED	110	12	40	\$ 0.062846	\$ 2.51
22	TOB 136 Watt LED	136	12	50	\$ 0.062846	\$ 3.14
23	TOB 180 Watt LED	180	12	66	\$ 0.062846	\$ 4.15

Schedule 3-1(e)

OFFICIAL COPY

Apr 06 2018

Docket No. E-34, Sub 46
Appalachian State University
d/b/a New River Light and Power Company
Settlement Monthly Charges for New LED Lighting

Monthly Light and Pole Charges	Monthly Charge	Costs Included			
		Light Cost	Pole Cost	O&M Cost	Purchased Power Cost
24 <u>Metered Lighting Only:</u>					
25 150 Watt Flood Light	\$7.13	X		X	
26 266 Watt Flood Light	\$10.17	X		X	
27 162 Watt Cobra Head	\$7.35	X		X	
28 119 Area Light (Shoe Box)	\$7.28	X		X	
29 50 Watt Yard Light	\$2.94	X		X	
30 <u>Metered Lighting with Wood Pole:</u>					
31 150 Watt Flood Light	\$10.53	X	X	X	
32 266 Watt Flood Light	\$13.57	X	X	X	
33 162 Watt Cobra Head	\$10.75	X	X	X	
34 119 Area Light (Shoe Box)	\$10.68	X	X	X	
35 50 Watt Yard Light	\$6.34	X	X	X	
36 <u>Metered Lighting with Decorative Fiberglass Pole:</u>					
37 150 Watt Flood Light	\$13.94	X	X	X	
38 266 Watt Flood Light	\$16.98	X	X	X	
39 162 Watt Cobra Head	\$14.16	X	X	X	
40 119 Area Light (Shoe Box)	\$14.09	X	X	X	
41 50 Watt Yard Light	\$9.75	X	X	X	
42 <u>Unmetered Lighting Only:</u>					
43 150 Watt Flood Light	\$10.59	X		X	X
44 266 Watt Flood Light	\$16.27	X		X	X
45 162 Watt Cobra Head	\$11.06	X		X	X
46 119 Area Light (Shoe Box)	\$9.98	X		X	X
47 50 Watt Yard Light	\$4.07	X		X	X
48 <u>Unmetered Lighting with Wood Pole:</u>					
49 150 Watt Flood Light	\$13.99	X	X	X	X
50 266 Watt Flood Light	\$19.67	X	X	X	X
51 162 Watt Cobra Head	\$14.46	X	X	X	X
52 119 Area Light (Shoe Box)	\$13.38	X	X	X	X
53 50 Watt Yard Light	\$7.47	X	X	X	X
54 <u>Unmetered Lighting with Decorative Fiberglass Pole:</u>					
55 150 Watt Flood Light	\$17.40	X	X	X	X
56 266 Watt Flood Light	\$23.08	X	X	X	X
57 162 Watt Cobra Head	\$17.87	X	X	X	X
58 119 Area Light (Shoe Box)	\$16.79	X	X	X	X
59 50 Watt Yard Light	\$10.88	X	X	X	X

OFFICIAL COPY

Apr 06 2018

Docket No. E-34, Sub 46
Appalachian State University
d/b/a New River Light and Power Company
Settlement Monthly Charge for New Sodium Vapor Lighting

Line	Light and Pole Costs	Cost			Life	ROR	Monthly Cost
		Material	Installation	Total			
1	<u>Monthly Light Costs:</u>						
2	100 Watt Yard Light (SV)	\$ 133.44	\$ 160.94	\$ 294.38	20	6.53%	\$2.20
3	<u>Monthly Pole Cost:</u>						
4	30' Wood Pole	\$ 122.38	\$ 413.88	\$ 536.26	30	6.53%	\$3.40
O&M Costs		Watts	Daily Burn (Hrs)	Monthly kWh	O&M Cost / kWh	Monthly O&M Cost	
5	<u>Monthly O&M Costs:</u>						
6	100 Watt Yard Light (SV)	100	12	37	\$ 0.03026	\$ 1.12	
Purchased Power Costs		Watts	Daily Burn (Hrs)	Monthly kWh	PP Cost / kWh	Monthly PP Cost	
7	<u>Monthly Purchased Power Costs:</u>						
8	100 Watt Yard Light (SV)	100	12	37	\$ 0.062846	\$ 2.33	
Monthly Light and Pole Charges		Monthly Charge	Costs Included				
			Light Cost	Pole Cost	O&M Cost	Purchased Power Cost	
9	<u>Unmetered Lighting with Wood Pole:</u>						
10	100 Watt Yard Light (SV)	\$9.05	X	X	X	X	

OFFICIAL COPY

Apr 06 2018

PRORATION FACTOR=>

0.50

NEW RIVER LIGHT AND POWER
DERIVATION OF KWH ATTRIBUTABLE TO INCREASED USAGE
12 MONTHS ENDED DECEMBER 31, 2016

RESIDENTIAL

OBS	CLASS	YEAR	MONTH	weather normalized kwh used	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL KWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	EOP CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1 R		2015	1	6410641	5961	1075					
2 R		2015	2	6849151	5926	1156					
3 R		2015	3	7079944	5885	1203					
4 R		2015	4	5067919	5898	859					
5 R		2015	5	3631238	5926	613					
6 R		2015	6	2915801	6034	483					
7 R		2015	7	3041354	6024	505					
8 R		2015	8	3513413	6940	506					
9 R		2015	9	4120015	6204	664					
10 R		2015	10	3375666	6012	561					
11 R		2015	11	3794994	6005	632					
12 R		2015	12	5632040	5999	939	55,432,176	9,197			
13 R		2016	1	6262834	6130	1022					
14 R		2016	2	6554290	6038	1086					
15 R		2016	3	6722536	6017	1117					
16 R		2016	4	5282389	6020	877					
17 R		2016	5	3569979	6040	591					
18 R		2016	6	3043164	6165	494					
19 R		2016	7	3043014	6107	498					
20 R		2016	8	2991858	6897	434					
21 R		2016	9	4018042	6245	643					
22 R		2016	10	3986608	6102	653					
23 R		2016	11	3813111	6251	610					
24 R		2016	12	5261963	6245	843	54,549,788	8,868	(329.0466)	6,235 #	(1,025,803)

COMMERCIAL

OBS	CLASS	YEAR	MONTH	KWh Used	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL KWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	EOP CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1 G		2015	1	2390931	1454	1644					
2 G		2015	2	2520747	1448	1741					
3 G		2015	3	2393823	1459	1641					
4 G		2015	4	1865716	1466	1273					
5 G		2015	5	1539321	1467	1049					
6 G		2015	6	1900307	1464	1298					
7 G		2015	7	1769227	1464	1208					
8 G		2015	8	1855809	1477	1256					
9 G		2015	9	1866918	1475	1266					
10 G		2015	10	1578364	1481	1066					
11 G		2015	11	1679734	1486	1130					
12 G		2015	12	2098298	1490	1408	23,459,195	15,981			
13 G		2016	1	2314776	1484	1560					
14 G		2016	2	2613632	1486	1759					
15 G		2016	3	2168222	1489	1456					
16 G		2016	4	1841134	1489	1236					
17 G		2016	5	1808004	1488	1215					
18 G		2016	6	1621710	1492	1087					
19 G		2016	7	1966019	1498	1312					
20 G		2016	8	2151341	1511	1424					
21 G		2016	9	2009640	1505	1335					
22 G		2016	10	1585808	1498	1059					
23 G		2016	11	1616925	1501	1077					
24 G		2016	12	2369332	1489	1591	24,066,563	16,112	130.9392	1,497 #	98,008

COMMERCIAL - DEMAND

OBS	CLASS	YEAR	MONTH	kWh Used	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL KWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	EOP CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1 GL		2015	1	7280131	283	25725					
2 GL		2015	2	7365678	281	26212					
3 GL		2015	3	7014892	275	25509					
4 GL		2015	4	6166055	274	22504					
5 GL		2015	5	5294591	273	19394					
6 GL		2015	6	6788996	274	24777					
7 GL		2015	7	6167215	271	22757					
8 GL		2015	8	6469837	270	23962					
9 GL		2015	9	6709930	269	24944					
10 GL		2015	10	5570762	269	20709					
11 GL		2015	11	5611791	272	20632					
12 GL		2015	12	6375353	266	23967	76,815,231	281,093			
13 GL		2016	1	6688491	269	24864					
14 GL		2016	2	7091375	270	26264					
15 GL		2016	3	6538251	272	24001					
16 GL		2016	4	5682033	265	21442					
17 GL		2016	5	6113326	263	23245					
18 GL		2016	6	5556886	265	20969					
19 GL		2016	7	6530512	267	24459					
20 GL		2016	8	7035972	267	26352					
21 GL		2016	9	6547596	267	24523					
22 GL		2016	10	5414070	272	19905					
23 GL		2016	11	5377434	271	19843					
24 GL		2016	12	6785330	272	24946	75,351,276	280,812	(280.5993)	274 #	(38,442)

ASU

OBS	CLASS	YEAR	MONTH	kWh Used	CUSTOMERS	MONTHLY AVERAGE KWH	TOTAL KWH	TOTAL AVERAGE KWH PER YEAR	CHANGE IN AVERAGE KWH PER YEAR	EOP CUSTOMERS	KWH ATTRIBUTED TO INC. USAGE
1 A		2015	1	3022720	105	28788					
2 A		2015	2	4248207	106	40077					
3 A		2015	3	3793146	106	35784					
4 A		2015	4	4430920	108	41027					
5 A		2015	5	3851510	107	35995					
6 A		2015	6	3938413	107	36808					
7 A		2015	7	4545219	107	42479					
8 A		2015	8	5003041	108	46324					
9 A		2015	9	5116014	108	47371					
10 A		2015	10	4438497	107	41481					
11 A		2015	11	3855802	107	36036					
12 A		2015	12	3400710	107	31782	49,644,199	463,952			
13 A		2016	1	3451252	107	32255					
14 A		2016	2	3480337	107	32527					
15 A		2016	3	3493122	107	32646					
16 A		2016	4	3942227	107	36843					
17 A		2016	5	3945830	107	36877					
18 A		2016	6	3696623	107	34548					
19 A		2016	7	4180036	107	39066					
20 A		2016	8	4730743	107	44213					
21 A		2016	9	5303692	107	49567					
22 A		2016	10	4562204	108	42243					
23 A		2016	11	3928553	108	36375					
24 A		2016	12	3379456	108	31291	48,094,075	448,450	(15,502.3255)	108 #	(837,126)