

June 19, 2019

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VIA ELECTRONIC FILING

Martha Lynn Jarvis
Chief Clerk
N.C. Utilities Commission
430 N Salisbury Street – Dobbs Building
Raleigh, NC 27603

RE: Docket No. E-34, Sub 46

**In the Matter of Application of Appalachian State University, d/b/a New River
Light and Power Company, for an Adjustment of Rates and Charges for Electric
Service in North Carolina**

Dear Ms. Jarvis:

Attached hereto are Attachments A and B and Exhibits 1-5 to the Updated Cost of Service Study Using Advanced Metering System Data; they were inadvertently omitted from the filing made yesterday. Please file the attached as part of said filing.

Please direct any questions in connection with the foregoing to the undersigned.

Sincerely,

/s/ Michael S. Colo

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Attorney for New River Light and Power

cc: Edmund Miller
Randy Halley

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

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting	
Allocation Factors										
SPECIFIC ALLOCATOR:										
1.01	Residential	c	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	
1.02	Commercial Non-Demand	c	1.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000	
1.03	Commercial Demand	c	1.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000	
1.04	Commercial Demand High Load Factor	c	1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000	
1.05	ASU Campus	c	1.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000	
1.06	Security Lighting	c	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000	
ENERGY ALLOCATOR:										
	Usage in kWh		202,215,273	53,270,063	23,797,508	53,826,414	19,733,160	48,094,075	3,494,053	
2.01	Allocation %	e	100.00%	26.34%	11.77%	26.62%	9.76%	23.78%	1.73%	
	Res. And Commercial Usage Only		150,627,145	53,270,063	23,797,508	53,826,414	19,733,160			
2.02	Allocation %	e	100.00%	35.37%	15.80%	35.73%	13.10%			
DEMAND ALLOCATORS										
			Load Factor	47.19%	37.18%	46.91%	46.91%	71.83%	56.40%	50.00%
	Annual NCP Demand (kW) [1]		48,915	16,357	5,791	13,098	3,136	9,735	798	
3.01	Allocation %	d	100.00%	33.44%	11.84%	26.78%	6.41%	19.90%	1.63%	
			Load Factor	75.40%	69.82%	72.75%	72.75%	95.46%	78.83%	n/a
	Average CP Demand (kW) [2]		30,614	8,710	3,734	8,446	2,360	6,964	399	
3.02	Allocation %	d	100.00%	28.45%	12.20%	27.59%	7.71%	22.75%	1.30%	
CUSTOMER ALLOCATORS:										
	Average Number of Customers		8,148	6,188	1,494	251	18	107	90	
4.01	Allocation %	c	100.00%	75.94%	18.34%	3.07%	0.22%	1.32%	1.11%	
4.02	Weighted Customer/Energy/NCP Demand Allocation [3]	c	100.00%	42.29%	13.45%	20.81%	5.70%	16.23%	1.52%	
4.03	Weighted Customer/NCP Demand Allocation [4]	c	100.00%	44.07%	13.46%	20.85%	4.86%	15.26%	1.50%	
4.04	Number of Customers Excluding Security Lighting Allocation %	c	100.00%	76.80%	18.54%	3.11%	0.22%	1.33%		
Notes:										
[1]	NCP Load Factors (LF) were estimated for each customer class (except Comm Demand High LF & Security Lighting) by taking the annual NCP LF of the wholesale delivery point that most closely matched the usage pattern of the respective customer class. Comm Demand High LF is based on actual billing data. Security Lighting was estimated by assuming 12 hours of lamp burn time per day.									
[2]	CP Load Factors (LF) were estimated for each customer class (except Comm Demand High LF & Security Lighting) by taking the average CP LF of the wholesale delivery point that most closely matched the usage pattern of the respective customer class. Comm Demand High LF demand was based on a DEP coincident factor for large general service customers applied to he NCP. Security Lighting is assumed at 50% of its NCP to ensure some fixed demand costs are appropriately assigned.									
[3]	4.02 - Weighted Customer Allocation:									
	NCP Demand		50.00%							
	Customer		25.00%							
	Energy		25.00%							
	Total		100.00%							
[4]	4.03 - Weighted Customer Allocation:									
	NCP Demand		75.00%							
	Customer		25.00%							
	Total		100.00%							

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Cost of Service Analysis
For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Current Rate Revenues									
1.01	Energy Charges		\$ 14,017,770	\$ 4,666,191	\$ 1,971,838	\$ 2,583,991	\$ 947,310	\$ 3,848,440	\$ -
1.02	Demand Charges		\$ 1,798,571	\$ -	\$ -	\$ 1,494,995	\$ 303,576	\$ -	\$ -
1.03	Customer Charges		\$ 1,019,241	\$ 467,077	\$ 156,170	\$ 34,900	\$ 2,485	\$ 14,942	\$ 343,668
1.04	Total Revenues from Current Rates		\$ 16,835,581	\$ 5,133,268	\$ 2,128,008	\$ 4,113,885	\$ 1,253,370	\$ 3,863,382	\$ 343,668
REV1	Total Revenue Allocator		100.00%	30.49%	12.64%	24.44%	7.44%	22.95%	2.04%
REV2	Total Revenue Allocator Excluding ASU		100.00%	39.57%	16.40%	31.71%	9.66%	0.00%	2.65%
Other Operating Income									
2.00	Revenue Job & Contract ASU	c 4.04	\$ 23,777	\$ 18,260	\$ 4,409	\$ 739	\$ 53	\$ 316	\$ -
2.01	Rev Job&Con TOB	c 4.04	\$ 6,824	\$ 5,241	\$ 1,265	\$ 212	\$ 15	\$ 91	\$ -
2.02	Revenue Job & Contract Cmp Broadstone	c 4.04	\$ 509	\$ 391	\$ 94	\$ 16	\$ 1	\$ 7	\$ -
2.03	Int Inc Other	c 4.04	\$ 9,831	\$ 7,550	\$ 1,823	\$ 306	\$ 22	\$ 131	\$ -
2.04	Misc Non-Operating Income	c 4.04	\$ 51	\$ 39	\$ 10	\$ 2	\$ 0	\$ 1	\$ -
2.05	Misc Svc Revenue-Conn & Reconnect Chrgs	c Direct	\$ 44,949	\$ 33,712	\$ 5,619	\$ 5,619	\$ -	\$ -	\$ -
2.06	Temporary Construct Revenue	c 4.04	\$ 21,974	\$ 16,875	\$ 4,075	\$ 683	\$ 49	\$ 292	\$ -
2.07	Rent Electric Property	c 4.04	\$ 24,569	\$ 18,868	\$ 4,556	\$ 764	\$ 54	\$ 327	\$ -
2.08	Rent Electric Property-Fiber	c 4.04	\$ 6,000	\$ 4,608	\$ 1,113	\$ 187	\$ 13	\$ 80	\$ -
2.09	Total Other Operating Income	Sum	\$ 138,485	\$ 105,544	\$ 22,963	\$ 8,526	\$ 207	\$ 1,245	\$ -
3.00	Total Revenues	Sum	\$ 16,974,067	\$ 5,238,811	\$ 2,150,971	\$ 4,122,412	\$ 1,253,577	\$ 3,864,627	\$ 343,668
Purchased Power									
4.00	Energy Expense	e 2.01	\$ 4,893,995	\$ 1,289,237	\$ 575,945	\$ 1,302,702	\$ 477,580	\$ 1,163,968	\$ 84,563
4.01	Demand Expense	d 3.02	\$ 6,243,456	\$ 1,776,341	\$ 761,584	\$ 1,722,590	\$ 481,267	\$ 1,420,328	\$ 81,345
4.02	Transmission & Ancillary Expenses	d 3.02	\$ 521,183	\$ 148,283	\$ 63,575	\$ 143,796	\$ 40,175	\$ 118,564	\$ 6,790
4.03	BREMCO Distribution Expenses	d 3.02	\$ 1,257,246	\$ 357,702	\$ 153,360	\$ 346,878	\$ 96,913	\$ 286,012	\$ 16,380
4.04	Generation Credit	c 1.05	\$ (74,340)	\$ -	\$ -	\$ -	\$ -	\$ (74,340)	\$ -
4.05	Avioded Costs for Retail Customer Renewable Energy	c 4.04	\$ 8,238	\$ 6,327	\$ 1,528	\$ 256	\$ 18	\$ 110	\$ -
4.06	Total Purchased Power Expense	Sum	\$ 12,849,778	\$ 3,577,890	\$ 1,555,992	\$ 3,516,223	\$ 1,095,953	\$ 2,914,642	\$ 189,079
Total Purchased Power Expense			\$ 12,849,778	\$ 3,577,890	\$ 1,555,992	\$ 3,516,223	\$ 1,095,953	\$ 2,914,642	\$ 189,079
Customer-Related			\$ (66,102)	\$ 6,327	\$ 1,528	\$ 256	\$ 18	\$ (74,230)	\$ -
Energy-Related			\$ 4,893,995	\$ 1,289,237	\$ 575,945	\$ 1,302,702	\$ 477,580	\$ 1,163,968	\$ 84,563
Demand-Related			\$ 8,021,884	\$ 2,282,326	\$ 978,519	\$ 2,213,265	\$ 618,354	\$ 1,824,904	\$ 104,516
Gross Income									
5.00	Revenues less Purchased Power	Sum	\$ 4,124,289	\$ 1,660,921	\$ 594,979	\$ 606,189	\$ 157,625	\$ 949,985	\$ 154,590

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Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Electric Operating & Maintenance Expenses									
<u>Expense Job & Contract ASU</u>									
6.00	Expense Job & Contract ASU	c 4.04	\$ 3,652	\$ 2,805	\$ 677	\$ 114	\$ 8	\$ 49	\$ -
6.01	Expense Job & Contract ASU-Labor	c 4.04	\$ 9,512	\$ 7,304	\$ 1,764	\$ 296	\$ 21	\$ 127	\$ -
6.02	Expense Job & Contract ASU-Benefits	c 4.04	\$ 9,609	\$ 7,380	\$ 1,782	\$ 299	\$ 21	\$ 128	\$ -
6.03	Expense Job & Contract ASU-Transportation	c 4.04	\$ 1,401	\$ 1,076	\$ 260	\$ 44	\$ 3	\$ 19	\$ -
6.04	Expense Job & Contract TOB-Labor	c 4.04	\$ 3,356	\$ 2,577	\$ 622	\$ 104	\$ 7	\$ 45	\$ -
6.05	Expense Job & Contract TOB-Benefits	c 4.04	\$ 1,824	\$ 1,401	\$ 338	\$ 57	\$ 4	\$ 24	\$ -
6.06	Expense Job & Contract TOB-Transportation	c 4.04	\$ 595	\$ 457	\$ 110	\$ 18	\$ 1	\$ 8	\$ -
6.07	Expense Job & Contract Camp Broadstone	c 4.04	\$ 219	\$ 168	\$ 41	\$ 7	\$ 0	\$ 3	\$ -
6.08	Expense Job & Contract Camp Broadstone-Benefits	c 4.04	\$ 107	\$ 82	\$ 20	\$ 3	\$ 0	\$ 1	\$ -
6.09	Expense Job & Contract Camp Broadstone-Transportation	c 4.04	\$ 71	\$ 54	\$ 13	\$ 2	\$ 0	\$ 1	\$ -
6.10	Total Expense Job & Contract ASU	Sum	\$ 30,344	\$ 23,303	\$ 5,627	\$ 943	\$ 67	\$ 404	\$ -
<u>Operations Superv & Engineering</u>									
7.00	Operations Superv & Engineering-Labor	c 4.03	\$ 119,980	\$ 52,870	\$ 16,153	\$ 25,018	\$ 5,835	\$ 18,303	\$ 1,800
7.01	Operations Superv & Engineering-Benefits	c 4.03	\$ 42,811	\$ 18,865	\$ 5,764	\$ 8,927	\$ 2,082	\$ 6,531	\$ 642
7.02	Operations Superv & Engineering-Transportation	c 4.03	\$ 2,977	\$ 1,312	\$ 401	\$ 621	\$ 145	\$ 454	\$ 45
7.03	Total Operations Superv & Engineering	Sum	\$ 165,768	\$ 73,047	\$ 22,318	\$ 34,565	\$ 8,061	\$ 25,289	\$ 2,487
<u>Station Expense</u>									
8.00	Station Expense-Labor	d 3.01	\$ 6,930	\$ 2,317	\$ 820	\$ 1,856	\$ 444	\$ 1,379	\$ 113
8.01	Station Expense-Benefits	d 3.01	\$ 3,674	\$ 1,229	\$ 435	\$ 984	\$ 236	\$ 731	\$ 60
8.02	Station Expense-Transportation	d 3.01	\$ 823	\$ 275	\$ 97	\$ 220	\$ 53	\$ 164	\$ 13
8.03	Total Station Expense	Sum	\$ 11,427	\$ 3,821	\$ 1,353	\$ 3,060	\$ 733	\$ 2,274	\$ 186
9.00	Overhead Line Expense	c 4.03	\$ 1,722	\$ 759	\$ 232	\$ 359	\$ 84	\$ 263	\$ 26
<u>Meter Expense</u>									
10.00	Meter Expense	c 4.04	\$ 30,326	\$ 23,289	\$ 5,623	\$ 943	\$ 67	\$ 404	\$ -
10.01	Meter Expense-Labor	c 4.04	\$ 18,728	\$ 14,382	\$ 3,473	\$ 582	\$ 41	\$ 249	\$ -
10.02	Meter Expense-Benefits	c 4.04	\$ 11,527	\$ 8,852	\$ 2,137	\$ 358	\$ 26	\$ 153	\$ -
10.03	Meter Expense-Transportation	c 4.04	\$ 2,500	\$ 1,920	\$ 464	\$ 78	\$ 6	\$ 33	\$ -
10.04	Total Meter Expense	Sum	\$ 63,082	\$ 48,444	\$ 11,697	\$ 1,961	\$ 140	\$ 840	\$ -
<u>Customer Install Expense</u>									
11.00	Customer Install Expense-Labor	c 4.01	\$ 6,930	\$ 5,263	\$ 1,271	\$ 213	\$ 15	\$ 91	\$ 77
11.01	Customer Install Expense-Benefits	c 4.01	\$ 3,674	\$ 2,790	\$ 674	\$ 113	\$ 8	\$ 48	\$ 41
11.02	Customer Install Expense-Transportation	c 4.01	\$ 823	\$ 625	\$ 151	\$ 25	\$ 2	\$ 11	\$ 9
11.03	Total Customer Install Expense	Sum	\$ 11,427	\$ 8,678	\$ 2,095	\$ 351	\$ 25	\$ 150	\$ 127

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Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
<u>Miscellaneous Distribution Expense</u>									
12.00	Miscellaneous Distribution Expense	d 3.01	\$ 11,139	\$ 3,725	\$ 1,319	\$ 2,983	\$ 714	\$ 2,217	\$ 182
12.01	Miscellaneous Distribution Expense-Labor	d 3.01	\$ 151,872	\$ 50,786	\$ 17,980	\$ 40,668	\$ 9,736	\$ 30,225	\$ 2,477
12.02	Miscellaneous Distribution Expense-Benefits	d 3.01	\$ 86,879	\$ 29,052	\$ 10,285	\$ 23,264	\$ 5,570	\$ 17,290	\$ 1,417
12.03	Total Miscellaneous Distribution Expense	Sum	\$ 249,890	\$ 83,563	\$ 29,584	\$ 66,914	\$ 16,020	\$ 49,733	\$ 4,075
<u>Maintenance Superv & Engineering</u>									
13.00	Maintenance Superv & Engineering-Labor	c 4.03	\$ 31,881	\$ 14,049	\$ 4,292	\$ 6,648	\$ 1,550	\$ 4,864	\$ 478
13.01	Maintenance Superv & Engineering-Benefits	c 4.03	\$ 17,281	\$ 7,615	\$ 2,327	\$ 3,603	\$ 840	\$ 2,636	\$ 259
13.02	Maintenance Superv & Engineering-Transportation	c 4.03	\$ 3,791	\$ 1,671	\$ 510	\$ 790	\$ 184	\$ 578	\$ 57
13.03	Total Maintenance Superv & Engineering	Sum	\$ 52,953	\$ 23,334	\$ 7,129	\$ 11,042	\$ 2,575	\$ 8,078	\$ 795
<u>On Call Pay</u>									
14.00	On Call Pay -Primary/Secondary	c 4.03	\$ 28,782	\$ 12,683	\$ 3,875	\$ 6,001	\$ 1,400	\$ 4,391	\$ 432
14.01	On Call Pay-Primary/Secondary Benefits	c 4.03	\$ 20,337	\$ 8,962	\$ 2,738	\$ 4,241	\$ 989	\$ 3,102	\$ 305
14.02	Total On Call Pay	Sum	\$ 49,118	\$ 21,644	\$ 6,613	\$ 10,242	\$ 2,389	\$ 7,493	\$ 737
<u>Maintenance Station Equipment</u>									
15.00	Maintenance Station Equipment	d 3.01	\$ 1,387	\$ 464	\$ 164	\$ 371	\$ 89	\$ 276	\$ 23
15.01	Maintenance Station Equipment-Labor	d 3.01	\$ 16,606	\$ 5,553	\$ 1,966	\$ 4,447	\$ 1,065	\$ 3,305	\$ 271
15.02	Maintenance Station Equipment-Benefits	d 3.01	\$ 14,463	\$ 4,837	\$ 1,712	\$ 3,873	\$ 927	\$ 2,878	\$ 236
15.03	Maintenance Station Equipment-Transportation	d 3.01	\$ 1,681	\$ 562	\$ 199	\$ 450	\$ 108	\$ 335	\$ 27
15.04	Total Maintenance Station Equipment	Sum	\$ 34,137	\$ 11,415	\$ 4,041	\$ 9,141	\$ 2,189	\$ 6,794	\$ 557
<u>Maintenance Overhead Lines</u>									
16.00	Maintenance Overhead Lines	d 3.01	\$ 157,519	\$ 52,675	\$ 18,648	\$ 42,180	\$ 10,098	\$ 31,349	\$ 2,569
16.01	Maintenance Overhead Lines-Labor	d 3.01	\$ 114,174	\$ 38,180	\$ 13,517	\$ 30,573	\$ 7,320	\$ 22,723	\$ 1,862
16.02	Maintenance Overhead Lines-Benefits	d 3.01	\$ 64,744	\$ 21,651	\$ 7,665	\$ 17,337	\$ 4,151	\$ 12,885	\$ 1,056
16.03	Maintenance Overhead Lines-Transportation	d 3.01	\$ 12,907	\$ 4,316	\$ 1,528	\$ 3,456	\$ 827	\$ 2,569	\$ 210
16.04	Total Maintenance Overhead Lines	Sum	\$ 349,345	\$ 116,821	\$ 41,358	\$ 93,546	\$ 22,396	\$ 69,526	\$ 5,697
<u>Maintenance Underground Lines</u>									
17.00	Maintenance Underground Lines	c 4.03	\$ 6,218	\$ 2,740	\$ 837	\$ 1,296	\$ 302	\$ 949	\$ 93
17.01	Maintenance Underground Lines-Labor	c 4.03	\$ 18,618	\$ 8,204	\$ 2,507	\$ 3,882	\$ 905	\$ 2,840	\$ 279
17.02	Maintenance Underground Lines-Benefits	c 4.03	\$ 14,396	\$ 6,344	\$ 1,938	\$ 3,002	\$ 700	\$ 2,196	\$ 216
17.03	Maintenance Underground Lines-Transportation	c 4.03	\$ 1,988	\$ 876	\$ 268	\$ 415	\$ 97	\$ 303	\$ 30
17.04	Total Maintenance Underground Lines	Sum	\$ 41,220	\$ 18,164	\$ 5,550	\$ 8,595	\$ 2,004	\$ 6,288	\$ 619
<u>Maintenance Line Transformers</u>									
18.00	Maintenance Line Transformers	c 4.03	\$ 16,119	\$ 7,103	\$ 2,170	\$ 3,361	\$ 784	\$ 2,459	\$ 242
18.01	Maintenance Line Transformers-Labor	c 4.03	\$ 783	\$ 345	\$ 105	\$ 163	\$ 38	\$ 119	\$ 12
18.02	Maintenance Line Transformers-Benefits	c 4.03	\$ (511)	\$ (225)	\$ (69)	\$ (107)	\$ (25)	\$ (78)	\$ (8)
18.03	Maintenance Line Transformers-Transportation	c 4.03	\$ 61	\$ 27	\$ 8	\$ 13	\$ 3	\$ 9	\$ 1
18.04	Total Maintenance Line Transformers	Sum	\$ 16,452	\$ 7,250	\$ 2,215	\$ 3,430	\$ 800	\$ 2,510	\$ 247

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<u>Maintenance Street Lights</u>									
19.00	Maintenance Street Lights	c 1.06	\$ 16,179	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,179
19.01	Maintenance Street Lights-Labor	c 1.06	\$ 17,761	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,761
19.02	Maintenance Street Lights-Benefits	c 1.06	\$ 8,363	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,363
19.03	Maintenance Street Lights-Transportation	c 1.06	\$ 2,375	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,375
19.04	Total Maintenance Street Lights	Sum	\$ 44,677	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 44,677
<u>Maintenance-Meters</u>									
20.00	Maintenance-Meters	c 4.04	\$ 6,431	\$ 4,939	\$ 1,192	\$ 200	\$ 14	\$ 86	\$ -
20.01	Maintenance-Meters-Labor	c 4.04	\$ 52,485	\$ 40,306	\$ 9,732	\$ 1,632	\$ 116	\$ 699	\$ -
20.02	Maintenance-Meters-Benefits	c 4.04	\$ 30,227	\$ 23,213	\$ 5,605	\$ 940	\$ 67	\$ 402	\$ -
20.03	Maintenance-Meters-Transportation	c 4.04	\$ 5,451	\$ 4,186	\$ 1,011	\$ 169	\$ 12	\$ 73	\$ -
20.04	Total Maintenance-Meters	Sum	\$ 94,594	\$ 72,644	\$ 17,541	\$ 2,941	\$ 209	\$ 1,259	\$ -
<u>Maintenance Misc Distribution Plant</u>									
21.00	Maintenance Misc Distribution Plant	c 4.03	\$ 681	\$ 300	\$ 92	\$ 142	\$ 33	\$ 104	\$ 10
21.01	Maintenance Misc Distribution Plant-Labor	c 4.03	\$ 56,862	\$ 25,057	\$ 7,656	\$ 11,857	\$ 2,765	\$ 8,675	\$ 853
21.02	Maintenance Misc Distribution Plant-Benefits	c 4.03	\$ 15,618	\$ 6,882	\$ 2,103	\$ 3,257	\$ 760	\$ 2,383	\$ 234
21.03	Maintenance Misc Distribution Plant-Transportation	c 4.03	\$ 5,985	\$ 2,637	\$ 806	\$ 1,248	\$ 291	\$ 913	\$ 90
21.04	Total Maintenance Misc Distribution Plant	Sum	\$ 79,146	\$ 34,876	\$ 10,656	\$ 16,503	\$ 3,849	\$ 12,074	\$ 1,188
<u>Supervision Customer Accounts</u>									
22.00	Supervision Customer Accounts-Labor	c 4.01	\$ 30,858	\$ 23,434	\$ 5,658	\$ 949	\$ 68	\$ 406	\$ 342
22.01	Supervision Customer Accounts-Benefits	c 4.01	\$ 16,768	\$ 12,734	\$ 3,075	\$ 516	\$ 37	\$ 221	\$ 186
22.02	Supervision Customer Accounts-Transportation	c 4.01	\$ 3,681	\$ 2,796	\$ 675	\$ 113	\$ 8	\$ 48	\$ 41
22.03	Total Supervision Customer Accounts	Sum	\$ 51,307	\$ 38,965	\$ 9,408	\$ 1,577	\$ 112	\$ 675	\$ 569
<u>Meter Reading Expense</u>									
23.00	Meter Reading Expense	c 4.01	\$ 1,455	\$ 1,105	\$ 267	\$ 45	\$ 3	\$ 19	\$ 16
23.01	Meter Reading Expense-Labor	c 4.01	\$ 20,742	\$ 15,752	\$ 3,804	\$ 638	\$ 45	\$ 273	\$ 230
23.02	Meter Reading Expense-Benefits	c 4.01	\$ 11,790	\$ 8,954	\$ 2,162	\$ 362	\$ 26	\$ 155	\$ 131
23.03	Meter Reading Expense-Transportation	c 4.01	\$ 2,238	\$ 1,699	\$ 410	\$ 69	\$ 5	\$ 29	\$ 25
23.04	Total Meter Reading Expense	Sum	\$ 36,225	\$ 27,510	\$ 6,643	\$ 1,114	\$ 79	\$ 477	\$ 402
<u>Customer Records</u>									
24.00	Customer Records & Collections Expense	c 4.01	\$ 144,195	\$ 109,507	\$ 26,441	\$ 4,433	\$ 316	\$ 1,898	\$ 1,600
24.01	Customer Records & Collections Expense-Labor	c 4.01	\$ 173,671	\$ 131,892	\$ 31,846	\$ 5,339	\$ 380	\$ 2,286	\$ 1,927
24.02	Customer Records & Collections Expense-Benefits	c 4.01	\$ 94,798	\$ 71,993	\$ 17,383	\$ 2,914	\$ 207	\$ 1,248	\$ 1,052
24.03	Postage	c 4.01	\$ 4,976	\$ 3,779	\$ 913	\$ 153	\$ 11	\$ 66	\$ 55
24.04	Customer Records Cash Over/Short	c 4.01	\$ 13	\$ 10	\$ 2	\$ 0	\$ 0	\$ 0	\$ 0
24.05	Customer Records - Bank Service Fees	c 4.01	\$ 17,908	\$ 13,600	\$ 3,284	\$ 551	\$ 39	\$ 236	\$ 199
24.06	Customer Records - Credit Card Fees	c 4.01	\$ 35,612	\$ 27,045	\$ 6,530	\$ 1,095	\$ 78	\$ 469	\$ 395
24.07	Total Customer Records	Sum	\$ 471,173	\$ 357,826	\$ 86,400	\$ 14,485	\$ 1,031	\$ 6,202	\$ 5,228

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

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
<u>Maintenance Of General Plant</u>									
25.00	Maintenance Of General Plant	c 4.03	\$ 69,681	\$ 30,706	\$ 9,381	\$ 14,530	\$ 3,389	\$ 10,630	\$ 1,046
25.01	Maintenance Of General Plant-Labor	c 4.03	\$ 2,284	\$ 1,007	\$ 308	\$ 476	\$ 111	\$ 348	\$ 34
25.02	Maintenance Of General Plant-Benefits	c 4.03	\$ 1,109	\$ 489	\$ 149	\$ 231	\$ 54	\$ 169	\$ 17
25.03	Maintenance Of General Plant-Transportation	c 4.03	\$ 149	\$ 66	\$ 20	\$ 31	\$ 7	\$ 23	\$ 2
25.04	Total Maintenance Of General Plant	Sum	\$ 73,224	\$ 32,267	\$ 9,858	\$ 15,268	\$ 3,561	\$ 11,171	\$ 1,099
26.00	Subtotal Electric Operating & Maintenance Expense		\$ 14,777,009	\$ 4,582,223	\$ 1,836,310	\$ 3,812,262	\$ 1,162,277	\$ 3,126,142	\$ 257,795
26.01	Subtotal Electric O&M Excluding Purchased Power		\$ 1,927,231	\$ 1,004,333	\$ 280,318	\$ 296,039	\$ 66,324	\$ 211,499	\$ 68,716
26.02	Electric O&M Excluding Purchased Power Allocator	w	100.00%	52.11%	14.55%	15.36%	3.44%	10.97%	3.57%
Electric O&M Excluding Purchased Power			\$ 1,927,231	\$ 1,004,333	\$ 280,318	\$ 296,039	\$ 66,324	\$ 211,499	\$ 68,716
	Customer-Related	c	\$ 1,282,431	\$ 788,712	\$ 203,982	\$ 123,378	\$ 24,987	\$ 83,172	\$ 58,201
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demand-Related	d	\$ 644,799	\$ 215,621	\$ 76,336	\$ 172,661	\$ 41,338	\$ 128,327	\$ 10,516
General & Administrative Expenses									
<u>Administration - Other</u>									
27.00	Customer Assistance Expense	w 26.02	\$ 3,379	\$ 1,761	\$ 492	\$ 519	\$ 116	\$ 371	\$ 120
27.01	Informational Advertising Expense	w 26.02	\$ 4,572	\$ 2,383	\$ 665	\$ 702	\$ 157	\$ 502	\$ 163
27.02	Administrative & General-Salaries	w 26.02	\$ 306,658	\$ 159,808	\$ 44,604	\$ 47,105	\$ 10,553	\$ 33,653	\$ 10,934
27.03	Administrative & General-Benefits	w 26.02	\$ 152,654	\$ 79,552	\$ 22,204	\$ 23,449	\$ 5,253	\$ 16,753	\$ 5,443
27.04	Office Supplies And Expenses	w 26.02	\$ 26,862	\$ 13,999	\$ 3,907	\$ 4,126	\$ 924	\$ 2,948	\$ 958
27.05	Consulting Fees	w 26.02	\$ 97,087	\$ 50,595	\$ 14,121	\$ 14,913	\$ 3,341	\$ 10,655	\$ 3,462
27.06	Investment Management Expense	w 26.02	\$ 23,888	\$ 12,448	\$ 3,474	\$ 3,669	\$ 822	\$ 2,621	\$ 852
27.07	Property Insurance	w 26.02	\$ 6,190	\$ 3,226	\$ 900	\$ 951	\$ 213	\$ 679	\$ 221
27.08	Injuries & Damages Expense	w 26.02	\$ 67,740	\$ 35,301	\$ 9,853	\$ 10,405	\$ 2,331	\$ 7,434	\$ 2,415
27.09	Injuries & Damages Expense-Labor	w 26.02	\$ 5,905	\$ 3,077	\$ 859	\$ 907	\$ 203	\$ 648	\$ 211
27.10	Injuries & Damages Expense-Benefits	w 26.02	\$ 3,354	\$ 1,748	\$ 488	\$ 515	\$ 115	\$ 368	\$ 120
27.11	Injuries & Damages Expense-Transportation	w 26.02	\$ 829	\$ 432	\$ 121	\$ 127	\$ 29	\$ 91	\$ 30
27.12	Institutional Advertising Expense	w 26.02	\$ 10,457	\$ 5,449	\$ 1,521	\$ 1,606	\$ 360	\$ 1,148	\$ 373
27.13	Miscellaneous General Expense	w 26.02	\$ 53,958	\$ 28,119	\$ 7,848	\$ 8,288	\$ 1,857	\$ 5,922	\$ 1,924
27.14	Total Administrative-Other	Sum	\$ 763,533	\$ 397,898	\$ 111,057	\$ 117,285	\$ 26,276	\$ 83,792	\$ 27,224
<u>ASU Administrative Support Costs</u>									
28.00	Legal	w 26.02	\$ 106,501	\$ 55,501	\$ 15,491	\$ 16,359	\$ 3,665	\$ 11,688	\$ 3,797
28.01	Human Resources	w 26.02	\$ 17,351	\$ 9,042	\$ 2,524	\$ 2,665	\$ 597	\$ 1,904	\$ 619
28.02	Information Technology	w 26.02	\$ 16,788	\$ 8,749	\$ 2,442	\$ 2,579	\$ 578	\$ 1,842	\$ 599
28.03	Administrative Supervision	w 26.02	\$ 60,940	\$ 31,758	\$ 8,864	\$ 9,361	\$ 2,097	\$ 6,688	\$ 2,173
28.04	Total ASU Administrative Support Costs	Sum	\$ 201,580	\$ 105,049	\$ 29,320	\$ 30,964	\$ 6,937	\$ 22,122	\$ 7,187

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

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Increase in Salary and Benefits									
29.00	A&G Related	w 26.02	\$ 43,881	\$ 22,868	\$ 6,383	\$ 6,741	\$ 1,510	\$ 4,816	\$ 1,565
29.01	Customer Service Related	c 4.01	\$ 27,970	\$ 21,241	\$ 5,129	\$ 860	\$ 61	\$ 368	\$ 310
29.02	Distribution Related	c 4.03	\$ 48,950	\$ 21,570	\$ 6,590	\$ 10,207	\$ 2,380	\$ 7,468	\$ 735
29.03	Contract Related	c 4.04	\$ 1,342	\$ 1,030	\$ 249	\$ 42	\$ 3	\$ 18	\$ -
29.04	Total Increase in Salary and Benefits	Sum	\$ 122,143	\$ 66,710	\$ 18,351	\$ 17,849	\$ 3,955	\$ 12,669	\$ 2,609
30.00	Total O&M	Sum	\$ 15,864,264	\$ 5,151,880	\$ 1,995,038	\$ 3,978,361	\$ 1,199,445	\$ 3,244,725	\$ 294,816
30.01	Total O&M Allocator		100.00%	32.47%	12.58%	25.08%	7.56%	20.45%	1.86%
30.02	Total O&M Less Purchased Power	Sum	\$ 3,014,487	\$ 1,573,990	\$ 439,046	\$ 462,138	\$ 103,493	\$ 330,083	\$ 105,737
30.03	Total O&M Less Purchased Power Allocator		100.00%	52.21%	14.56%	15.33%	3.43%	10.95%	3.51%
Total O&M Excluding Purchased Power									
	Customer-Related	c	\$ 2,032,105	\$ 1,245,481	\$ 322,744	\$ 199,081	\$ 40,513	\$ 134,571	\$ 89,716
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demand-Related	d	\$ 982,381	\$ 328,509	\$ 116,302	\$ 263,058	\$ 62,980	\$ 195,512	\$ 16,021
Depreciation and Property Transaction Expense									
31.00	Depreciation	d 3.01	\$ 1,014,251	\$ 339,166	\$ 120,075	\$ 271,592	\$ 65,023	\$ 201,855	\$ 16,541
31.01	Amortization of Regulatory Asset and Gain on Old Trucks	d 3.01	\$ 44,560	\$ 14,901	\$ 5,275	\$ 11,932	\$ 2,857	\$ 8,868	\$ 727
31.02	Gain/Loss Disposing Utility Property	d 3.01	\$ 3,376	\$ 1,129	\$ 400	\$ 904	\$ 216	\$ 672	\$ 55
31.03	Sale Of Surplus Property	d 3.01	\$ (850)	\$ (284)	\$ (101)	\$ (228)	\$ (55)	\$ (169)	\$ (14)
31.04	Total Depreciation and Property Transaction Expense	Sum	\$ 1,061,336	\$ 354,911	\$ 125,649	\$ 284,200	\$ 68,042	\$ 211,226	\$ 17,309
Interest Expense									
Interest Expense:									
32.00	Interest Expense Consumer Deposits	c 4.01	\$ 12,933	\$ 9,822	\$ 2,372	\$ 398	\$ 28	\$ 170	\$ 144
32.01	Total Interest Expense	Sum	\$ 12,933	\$ 9,822	\$ 2,372	\$ 398	\$ 28	\$ 170	\$ 144
Total Expenses									
33.00	Total Expenses		\$ 16,938,534	\$ 5,516,613	\$ 2,123,059	\$ 4,262,958	\$ 1,267,515	\$ 3,456,121	\$ 312,268
33.01	Total Expenses Less Purchased Power		\$ 4,088,756	\$ 1,938,723	\$ 567,067	\$ 746,736	\$ 171,563	\$ 541,479	\$ 123,189
Total Expenses Less Purchased Power									
	Customer-Related	c	\$ 1,978,936	\$ 1,261,630	\$ 326,643	\$ 199,734	\$ 40,559	\$ 60,510	\$ 89,860
	Energy-Related	e	\$ 4,893,995	\$ 1,289,237	\$ 575,945	\$ 1,302,702	\$ 477,580	\$ 1,163,968	\$ 84,563
	Demand-Related	d	\$ 10,065,602	\$ 2,965,746	\$ 1,220,470	\$ 2,760,522	\$ 749,376	\$ 2,231,642	\$ 137,846
Total Expenses Less Purchased Power									
	Customer-Related	c	\$ 2,045,038	\$ 1,255,303	\$ 325,116	\$ 199,478	\$ 40,541	\$ 134,741	\$ 89,860
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demand-Related	d	\$ 2,043,718	\$ 683,420	\$ 241,951	\$ 547,257	\$ 131,021	\$ 406,738	\$ 33,330

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

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Net Income and Return on Rate Base									
34.00	Net Income	Sum	\$ 35,532	\$ (277,802)	\$ 27,912	\$ (140,547)	\$ (13,938)	\$ 408,506	\$ 31,400
Rate Base									
35.00	Plant In Service	d 3.01	\$ 30,737,879	\$ 10,278,761	\$ 3,638,989	\$ 8,230,849	\$ 1,970,585	\$ 6,117,409	\$ 501,286
35.01	Less: Accumulated Depreciation	d 3.01	\$ (12,266,448)	\$ (4,101,906)	\$ (1,452,197)	\$ (3,284,654)	\$ (786,394)	\$ (2,441,251)	\$ (200,046)
35.02	Net Plant in Service	Sum	\$ 18,471,431	\$ 6,176,855	\$ 2,186,791	\$ 4,946,196	\$ 1,184,191	\$ 3,676,158	\$ 301,240
35.03	Construction Work in Progress	d 3.01	\$ 62,292	\$ 20,831	\$ 7,375	\$ 16,680	\$ 3,994	\$ 12,397	\$ 1,016
35.04	Investments - Blue Ridge Electric Membership Corporation	c 4.03	\$ 6,973,506	\$ 3,072,942	\$ 938,871	\$ 1,454,097	\$ 339,116	\$ 1,063,840	\$ 104,640
35.05	Investments - North Carolina Electric Membership Corporation	c 4.03	\$ 407,837	\$ 179,717	\$ 54,909	\$ 85,041	\$ 19,833	\$ 62,217	\$ 6,120
35.06	Regulatory Asset (Unamortized Old Meters)	c 4.01	\$ 139,708	\$ 106,100	\$ 25,619	\$ 4,295	\$ 306	\$ 1,839	\$ 1,550
35.07	Regulatory Asset (Hydro Removal and Clean-up)	d 3.02	\$ 52,500	\$ 14,937	\$ 6,404	\$ 14,485	\$ 4,047	\$ 11,943	\$ 684
35.08	Regulatory Liability on Gain from Old Trucks	d 3.01	\$ 13,381	\$ 4,475	\$ 1,584	\$ 3,583	\$ 858	\$ 2,663	\$ 218
35.09	Prepayments	d 3.01	\$ 34,573	\$ 11,561	\$ 4,093	\$ 9,258	\$ 2,216	\$ 6,881	\$ 564
35.10	Working Capital	d 3.01	\$ 895,981	\$ 299,616	\$ 106,073	\$ 239,922	\$ 57,441	\$ 178,317	\$ 14,612
35.11	Total Rate Base	Sum	\$ 27,051,210	\$ 9,887,034	\$ 3,331,719	\$ 6,773,556	\$ 1,612,001	\$ 5,016,256	\$ 430,644
35.12	Current Return on Rate Base	Calc	0.13%	-2.81%	0.84%	-2.07%	-0.86%	8.14%	7.29%
Updated with the Stipulated ROR of 6.525% in place of the originally requested 6.97%.									
36.00	Proposed Return on Rate Base	Pulled	6.525%	6.525%	6.525%	6.525%	6.525%	6.525%	6.525%
36.01	Targeted Net Income	Calc	\$ 1,765,091	\$ 645,129	\$ 217,395	\$ 441,975	\$ 105,183	\$ 327,311	\$ 28,100
36.02	Revenue Requirement before Uncollectible Accounts Adder	Sum	\$ 18,565,140	\$ 6,056,198	\$ 2,317,490	\$ 4,696,406	\$ 1,372,491	\$ 3,782,187	\$ 340,368
36.03	Additional Revenue Requirement to Cover Uncollectible Accounts	c REV2	\$ 21,114	\$ 8,355	\$ 3,464	\$ 6,696	\$ 2,040	\$ -	\$ 559
36.04	Additional Revenue Requirement to Cover Regulatory Commission Expense	c REV1	\$ 26,105	\$ 7,960	\$ 3,300	\$ 6,379	\$ 1,943	\$ 5,991	\$ 533
36.05	Total Revenue Requirement to Recover from Rates	Sum	\$ 18,612,359	\$ 6,072,513	\$ 2,324,254	\$ 4,709,481	\$ 1,376,475	\$ 3,788,177	\$ 341,460
36.06	Total Current Rate Revenues	Pulled	\$ 16,835,581	\$ 5,133,268	\$ 2,128,008	\$ 4,113,885	\$ 1,253,370	\$ 3,863,382	\$ 343,668
36.07	Total Revenue Increase(Decrease) Required	Sum	\$ 1,776,778	\$ 939,245	\$ 196,245	\$ 595,596	\$ 123,104	\$ (75,205)	\$ (2,208)
36.08	Total Percent Increase(Decrease) Required	Calc	10.55%	18.30%	9.22%	14.48%	9.82%	-1.95%	-0.64%
36.09	Current Base Rate Revenues	Pulled	\$ 13,806,599	\$ 4,335,335	\$ 1,771,545	\$ 3,307,619	\$ 957,787	\$ 3,142,981	\$ 291,331
36.10	Base Revenue Increase(Decrease) Required	Sum	\$ 4,805,760	\$ 1,737,178	\$ 552,708	\$ 1,401,862	\$ 418,687	\$ 645,196	\$ 50,129
36.11	Base Percent Increase(Decrease) Required	Calc	34.81%	40.07%	31.20%	42.38%	43.71%	20.53%	17.21%
Total Revenue Requirement to Recover from Rates									
	Customer-Related	c	\$ 2,331,200	\$ 1,375,245	\$ 370,196	\$ 291,917	\$ 63,794	\$ 132,861	\$ 97,188
	Energy-Related	e	\$ 4,893,995	\$ 1,289,237	\$ 575,945	\$ 1,302,702	\$ 477,580	\$ 1,163,968	\$ 84,563
	Demand-Related	d	\$ 11,339,945	\$ 3,391,716	\$ 1,371,349	\$ 3,101,788	\$ 831,118	\$ 2,485,358	\$ 158,617
Rev Req to Recover from Rates Adj. for Uncollectible Accounts & Reg. Fee									
	Customer-Related	c	\$ 2,378,419	\$ 1,391,560	\$ 376,959	\$ 304,992	\$ 67,777	\$ 138,851	\$ 98,280
	Energy-Related	e	\$ 4,893,995	\$ 1,289,237	\$ 575,945	\$ 1,302,702	\$ 477,580	\$ 1,163,968	\$ 84,563
	Demand-Related	d	\$ 11,339,945	\$ 3,391,716	\$ 1,371,349	\$ 3,101,788	\$ 831,118	\$ 2,485,358	\$ 158,617

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Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis Modified with AMI Data Allocation Factors
For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Allocation Factors									
<u>SPECIFIC ALLOCATOR:</u>									
1.01	Residential	c	1.000000	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000
1.02	Commercial Non-Demand	c	1.000000	0.000000	1.000000	0.000000	0.000000	0.000000	0.000000
1.03	Commercial Demand	c	1.000000	0.000000	0.000000	1.000000	0.000000	0.000000	0.000000
1.04	Commercial Demand High Load Factor	c	1.000000	0.000000	0.000000	0.000000	1.000000	0.000000	0.000000
1.05	ASU Campus	c	1.000000	0.000000	0.000000	0.000000	0.000000	1.000000	0.000000
1.06	Security Lighting	c	1.000000	0.000000	0.000000	0.000000	0.000000	0.000000	1.000000
<u>ENERGY ALLOCATOR:</u>									
	Usage in kWh		214,024,144	59,919,471	24,151,350	58,361,371	19,310,487	48,787,412	3,494,053
2.01	Allocation %	e	100.00%	28.00%	11.28%	27.27%	9.02%	22.80%	1.63%
	Res. And Commercial Usage Only		161,742,679	59,919,471	24,151,350	58,361,371	19,310,487		
2.02	Allocation %	e	100.00%	37.05%	14.93%	36.08%	11.94%		
<u>DEMAND ALLOCATORS</u>									
	DEC 20CP Peak Demands - Average kW		30,171	5,726	3,858	9,290	2,644	8,253	399
3.01	Allocation %	d	100.00%	18.98%	12.79%	30.79%	8.76%	27.35%	1.32%
	DEC Transmission Peak Demands - Average kW		33,578	10,170	4,137	9,600	2,494	6,778	399
3.02	Allocation %	d	100.00%	30.29%	12.32%	28.59%	7.43%	20.19%	1.19%
	BREMCO Distribution Peak Demands - Average kW		33,372	10,590	4,060	9,511	2,509	6,303	399
3.03	Allocation %	d	100.00%	31.73%	12.17%	28.50%	7.52%	18.89%	1.20%
	NRLP Distribution Peak Demands - Average kW		35,062	10,523	4,342	10,032	2,528	7,238	399
3.04	Allocation %	d	100.00%	30.01%	12.38%	28.61%	7.21%	20.64%	1.14%
	Customer NCP Peak Demands - Average kW		35,461	10,523	4,342	10,032	2,528	7,238	798
3.05	Allocation %	d	100.00%	29.67%	12.24%	28.29%	7.13%	20.41%	2.25%
<u>CUSTOMER ALLOCATORS:</u>									
	Average Number of Customers		8,326	6,369	1,489	258	17	103	90
4.01	Allocation %	c	100.00%	76.50%	17.88%	3.10%	0.20%	1.24%	1.08%
4.02	Weighted Customer/Energy/NCP Demand Allocation [1]	c	100.00%	40.96%	13.41%	21.74%	5.87%	16.21%	1.80%
4.03	Weighted Customer/NCP Demand Allocation [2]	c	100.00%	41.38%	13.65%	21.99%	5.40%	15.62%	1.96%
4.04	Number of Customers Excluding Security Lighting Allocation %	c	100.00%	77.33%	18.08%	3.13%	0.21%	1.25%	0.00%
<u>Notes:</u>									
[1]	<u>4.02 - Weighted Customer Allocation:</u>			<u>[2] 4.03 - Weighted Customer Allocation:</u>					
	NCP Demand	50.00%			NCP Demand	75.00%			
	Customer	25.00%			Customer	25.00%			
	Energy	25.00%			Total	100.00%			
	Total	100.00%							

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For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Current Rate Revenues									
1.01	Energy Charges		\$ 14,017,770	\$ 4,666,191	\$ 1,971,838	\$ 2,583,991	\$ 947,310	\$ 3,848,440	\$ -
1.02	Demand Charges		\$ 1,798,571	\$ -	\$ -	\$ 1,494,995	\$ 303,576	\$ -	\$ -
1.03	Customer Charges		\$ 1,019,241	\$ 467,077	\$ 156,170	\$ 34,900	\$ 2,485	\$ 14,942	\$ 343,668
1.04	Total Revenues from Current Rates		\$ 16,835,581	\$ 5,133,268	\$ 2,128,008	\$ 4,113,885	\$ 1,253,370	\$ 3,863,382	\$ 343,668
REV1	Total Revenue Allocator	c	100.00%	30.49%	12.64%	24.44%	7.44%	22.95%	2.04%
REV2	Total Revenue Allocator Excluding ASU	c	100.00%	39.57%	16.40%	31.71%	9.66%	0.00%	2.65%
Other Operating Income									
2.00	Revenue Job & Contract ASU	c 4.04	\$ 23,777	\$ 18,387	\$ 4,299	\$ 745	\$ 49	\$ 297	\$ -
2.01	Rev Job&Con TOB	c 4.04	\$ 6,824	\$ 5,277	\$ 1,234	\$ 214	\$ 14	\$ 85	\$ -
2.02	Revenue Job & Contract Cmp Broadstone	c 4.04	\$ 509	\$ 394	\$ 92	\$ 16	\$ 1	\$ 6	\$ -
2.03	Int Inc Other	c 4.04	\$ 9,831	\$ 7,603	\$ 1,777	\$ 308	\$ 20	\$ 123	\$ -
2.04	Misc Non-Operating Income	c 4.04	\$ 51	\$ 40	\$ 9	\$ 2	\$ 0	\$ 1	\$ -
2.05	Misc Svc Revenue-Conn & Reconnect Chrgs	c Direct	\$ 44,949	\$ 33,712	\$ 5,619	\$ 5,619	\$ -	\$ -	\$ -
2.06	Temporary Construct Revenue	c 4.04	\$ 21,974	\$ 16,993	\$ 3,973	\$ 688	\$ 45	\$ 275	\$ -
2.07	Rent Electric Property	c 4.04	\$ 24,569	\$ 18,999	\$ 4,442	\$ 770	\$ 51	\$ 307	\$ -
2.08	Rent Electric Property-Fiber	c 4.04	\$ 6,000	\$ 4,640	\$ 1,085	\$ 188	\$ 12	\$ 75	\$ -
2.09	Total Other Operating Income	Sum	\$ 138,485	\$ 106,044	\$ 22,529	\$ 8,549	\$ 193	\$ 1,170	\$ -
3.00	Total Revenues	Sum	\$ 16,974,067	\$ 5,239,312	\$ 2,150,537	\$ 4,122,434	\$ 1,253,564	\$ 3,864,552	\$ 343,668
Purchased Power									
4.00	Energy Expense	e 2.01	\$ 4,893,995	\$ 1,370,152	\$ 552,258	\$ 1,334,524	\$ 441,564	\$ 1,115,600	\$ 79,897
4.01	Demand Expense	d 3.01	\$ 6,243,456	\$ 1,184,962	\$ 798,338	\$ 1,922,553	\$ 547,204	\$ 1,707,858	\$ 82,540
4.02	Transmission & Ancillary Expenses	d 3.02	\$ 521,183	\$ 157,849	\$ 64,209	\$ 149,010	\$ 38,713	\$ 105,210	\$ 6,191
4.03	BREMCO Distribution Expenses	d 3.03	\$ 1,257,246	\$ 398,978	\$ 152,960	\$ 358,301	\$ 94,518	\$ 237,462	\$ 15,027
4.04	Generation Credit	c 1.05	\$ (74,340)	\$ -	\$ -	\$ -	\$ -	\$ (74,340)	\$ -
4.05	Avoided Costs for Retail Customer Renewable Energy	c 4.04	\$ 8,238	\$ 6,371	\$ 1,489	\$ 258	\$ 17	\$ 103	\$ -
4.06	Total Purchased Power Expense	Sum	\$ 12,849,778	\$ 3,118,312	\$ 1,569,256	\$ 3,764,646	\$ 1,122,017	\$ 3,091,892	\$ 183,655
Total Purchased Power Expense			\$ 12,849,778	\$ 3,118,312	\$ 1,569,256	\$ 3,764,646	\$ 1,122,017	\$ 3,091,892	\$ 183,655
Customer-Related			\$ (66,102)	\$ 6,371	\$ 1,489	\$ 258	\$ 17	\$ (74,237)	\$ -
Energy-Related			\$ 4,893,995	\$ 1,370,152	\$ 552,258	\$ 1,334,524	\$ 441,564	\$ 1,115,600	\$ 79,897
Demand-Related			\$ 8,021,884	\$ 1,741,789	\$ 1,015,508	\$ 2,429,865	\$ 680,435	\$ 2,050,529	\$ 103,758
Gross Income									
5.00	Revenues less Purchased Power	Sum	\$ 4,124,289	\$ 2,121,000	\$ 581,281	\$ 357,788	\$ 131,547	\$ 772,659	\$ 160,013

Docket No. E-34, Sub 46
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis Modified with AMI Data Allocation Factors
For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Electric Operating & Maintenance Expenses									
<u>Expense Job & Contract ASU</u>									
6.00	Expense Job & Contract ASU	c 4.04	\$ 3,652	\$ 2,824	\$ 660	\$ 114	\$ 8	\$ 46	\$ -
6.01	Expense Job & Contract ASU-Labor	c 4.04	\$ 9,512	\$ 7,355	\$ 1,720	\$ 298	\$ 20	\$ 119	\$ -
6.02	Expense Job & Contract ASU-Benefits	c 4.04	\$ 9,609	\$ 7,431	\$ 1,737	\$ 301	\$ 20	\$ 120	\$ -
6.03	Expense Job & Contract ASU-Transportation	c 4.04	\$ 1,401	\$ 1,083	\$ 253	\$ 44	\$ 3	\$ 18	\$ -
6.04	Expense Job & Contract TOB-Labor	c 4.04	\$ 3,356	\$ 2,595	\$ 607	\$ 105	\$ 7	\$ 42	\$ -
6.05	Expense Job & Contract TOB-Benefits	c 4.04	\$ 1,824	\$ 1,410	\$ 330	\$ 57	\$ 4	\$ 23	\$ -
6.06	Expense Job & Contract TOB-Transportation	c 4.04	\$ 595	\$ 460	\$ 108	\$ 19	\$ 1	\$ 7	\$ -
6.07	Expense Job & Contract Camp Broadstone	c 4.04	\$ 219	\$ 169	\$ 40	\$ 7	\$ 0	\$ 3	\$ -
6.08	Expense Job & Contract Camp Broadstone-Benefits	c 4.04	\$ 107	\$ 83	\$ 19	\$ 3	\$ 0	\$ 1	\$ -
6.09	Expense Job & Contract Camp Broadstone-Transportation	c 4.04	\$ 71	\$ 55	\$ 13	\$ 2	\$ 0	\$ 1	\$ -
6.10	Total Expense Job & Contract ASU	Sum	\$ 30,344	\$ 23,465	\$ 5,486	\$ 951	\$ 63	\$ 379	\$ -
<u>Operations Superv & Engineering</u>									
7.00	Operations Superv & Engineering-Labor	d 3.04	\$ 119,980	\$ 36,008	\$ 14,858	\$ 34,329	\$ 8,651	\$ 24,769	\$ 1,365
7.01	Operations Superv & Engineering-Benefits	d 3.04	\$ 42,811	\$ 12,848	\$ 5,302	\$ 12,249	\$ 3,087	\$ 8,838	\$ 487
7.02	Operations Superv & Engineering-Transportation	d 3.04	\$ 2,977	\$ 894	\$ 369	\$ 852	\$ 215	\$ 615	\$ 34
7.03	Total Operations Superv & Engineering	Sum	\$ 165,768	\$ 49,749	\$ 20,529	\$ 47,430	\$ 11,953	\$ 34,221	\$ 1,886
<u>Station Expense</u>									
8.00	Station Expense-Labor	d 3.04	\$ 6,930	\$ 2,080	\$ 858	\$ 1,983	\$ 500	\$ 1,431	\$ 79
8.01	Station Expense-Benefits	d 3.04	\$ 3,674	\$ 1,103	\$ 455	\$ 1,051	\$ 265	\$ 758	\$ 42
8.02	Station Expense-Transportation	d 3.04	\$ 823	\$ 247	\$ 102	\$ 235	\$ 59	\$ 170	\$ 9
8.03	Total Station Expense	Sum	\$ 11,427	\$ 3,429	\$ 1,415	\$ 3,270	\$ 824	\$ 2,359	\$ 130
9.00	Overhead Line Expense	d 3.04	\$ 1,722	\$ 517	\$ 213	\$ 493	\$ 124	\$ 356	\$ 20
<u>Meter Expense</u>									
10.00	Meter Expense	c 4.04	\$ 30,326	\$ 23,452	\$ 5,483	\$ 950	\$ 63	\$ 379	\$ -
10.01	Meter Expense-Labor	c 4.04	\$ 18,728	\$ 14,482	\$ 3,386	\$ 587	\$ 39	\$ 234	\$ -
10.02	Meter Expense-Benefits	c 4.04	\$ 11,527	\$ 8,914	\$ 2,084	\$ 361	\$ 24	\$ 144	\$ -
10.03	Meter Expense-Transportation	c 4.04	\$ 2,500	\$ 1,934	\$ 452	\$ 78	\$ 5	\$ 31	\$ -
10.04	Total Meter Expense	Sum	\$ 63,082	\$ 48,782	\$ 11,405	\$ 1,976	\$ 130	\$ 789	\$ -
<u>Customer Install Expense</u>									
11.00	Customer Install Expense-Labor	c 4.01	\$ 6,930	\$ 5,301	\$ 1,239	\$ 215	\$ 14	\$ 86	\$ 75
11.01	Customer Install Expense-Benefits	c 4.01	\$ 3,674	\$ 2,810	\$ 657	\$ 114	\$ 8	\$ 45	\$ 40
11.02	Customer Install Expense-Transportation	c 4.01	\$ 823	\$ 630	\$ 147	\$ 26	\$ 2	\$ 10	\$ 9
11.03	Total Customer Install Expense	Sum	\$ 11,427	\$ 8,741	\$ 2,044	\$ 354	\$ 23	\$ 141	\$ 124

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d/b/a New River Light and Power Company
Cost of Service Analysis Modified with AMI Data Allocation Factors
For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
<u>Miscellaneous Distribution Expense</u>									
12.00	Miscellaneous Distribution Expense	d 3.04	\$ 11,139	\$ 3,343	\$ 1,379	\$ 3,187	\$ 803	\$ 2,300	\$ 127
12.01	Miscellaneous Distribution Expense-Labor	d 3.04	\$ 151,872	\$ 45,579	\$ 18,808	\$ 43,454	\$ 10,951	\$ 31,353	\$ 1,728
12.02	Miscellaneous Distribution Expense-Benefits	d 3.04	\$ 86,879	\$ 26,074	\$ 10,759	\$ 24,858	\$ 6,264	\$ 17,935	\$ 988
12.03	Total Miscellaneous Distribution Expense	Sum	\$ 249,890	\$ 74,996	\$ 30,946	\$ 71,499	\$ 18,019	\$ 51,588	\$ 2,843
<u>Maintenance Superv & Engineering</u>									
13.00	Maintenance Superv & Engineering-Labor	d 3.04	\$ 31,881	\$ 9,568	\$ 3,948	\$ 9,122	\$ 2,299	\$ 6,582	\$ 363
13.01	Maintenance Superv & Engineering-Benefits	d 3.04	\$ 17,281	\$ 5,186	\$ 2,140	\$ 4,944	\$ 1,246	\$ 3,568	\$ 197
13.02	Maintenance Superv & Engineering-Transportation	d 3.04	\$ 3,791	\$ 1,138	\$ 469	\$ 1,085	\$ 273	\$ 783	\$ 43
13.03	Total Maintenance Superv & Engineering	Sum	\$ 52,953	\$ 15,892	\$ 6,558	\$ 15,151	\$ 3,818	\$ 10,932	\$ 602
<u>On Call Pay</u>									
14.00	On Call Pay -Primary/Secondary	c 4.03	\$ 28,782	\$ 11,910	\$ 3,930	\$ 6,330	\$ 1,554	\$ 4,495	\$ 563
14.01	On Call Pay-Primary/Secondary Benefits	c 4.03	\$ 20,337	\$ 8,415	\$ 2,777	\$ 4,473	\$ 1,098	\$ 3,176	\$ 398
14.02	Total On Call Pay	Sum	\$ 49,118	\$ 20,325	\$ 6,707	\$ 10,802	\$ 2,651	\$ 7,671	\$ 961
<u>Maintenance Station Equipment</u>									
15.00	Maintenance Station Equipment	d 3.04	\$ 1,387	\$ 416	\$ 172	\$ 397	\$ 100	\$ 286	\$ 16
15.01	Maintenance Station Equipment-Labor	d 3.04	\$ 16,606	\$ 4,984	\$ 2,056	\$ 4,751	\$ 1,197	\$ 3,428	\$ 189
15.02	Maintenance Station Equipment-Benefits	d 3.04	\$ 14,463	\$ 4,341	\$ 1,791	\$ 4,138	\$ 1,043	\$ 2,986	\$ 165
15.03	Maintenance Station Equipment-Transportation	d 3.04	\$ 1,681	\$ 505	\$ 208	\$ 481	\$ 121	\$ 347	\$ 19
15.04	Total Maintenance Station Equipment	Sum	\$ 34,137	\$ 10,245	\$ 4,228	\$ 9,767	\$ 2,461	\$ 7,047	\$ 388
<u>Maintenance Overhead Lines</u>									
16.00	Maintenance Overhead Lines	d 3.04	\$ 157,519	\$ 47,274	\$ 19,507	\$ 45,070	\$ 11,358	\$ 32,519	\$ 1,792
16.01	Maintenance Overhead Lines-Labor	d 3.04	\$ 114,174	\$ 34,265	\$ 14,139	\$ 32,668	\$ 8,233	\$ 23,570	\$ 1,299
16.02	Maintenance Overhead Lines-Benefits	d 3.04	\$ 64,744	\$ 19,431	\$ 8,018	\$ 18,525	\$ 4,668	\$ 13,366	\$ 737
16.03	Maintenance Overhead Lines-Transportation	d 3.04	\$ 12,907	\$ 3,874	\$ 1,598	\$ 3,693	\$ 931	\$ 2,665	\$ 147
16.04	Total Maintenance Overhead Lines	Sum	\$ 349,345	\$ 104,843	\$ 43,263	\$ 99,956	\$ 25,190	\$ 72,119	\$ 3,974
<u>Maintenance Underground Lines</u>									
17.00	Maintenance Underground Lines	d 3.04	\$ 6,218	\$ 1,866	\$ 770	\$ 1,779	\$ 448	\$ 1,284	\$ 71
17.01	Maintenance Underground Lines-Labor	d 3.04	\$ 18,618	\$ 5,587	\$ 2,306	\$ 5,327	\$ 1,342	\$ 3,843	\$ 212
17.02	Maintenance Underground Lines-Benefits	d 3.04	\$ 14,396	\$ 4,320	\$ 1,783	\$ 4,119	\$ 1,038	\$ 2,972	\$ 164
17.03	Maintenance Underground Lines-Transportation	d 3.04	\$ 1,988	\$ 597	\$ 246	\$ 569	\$ 143	\$ 411	\$ 23
17.04	Total Maintenance Underground Lines	Sum	\$ 41,220	\$ 12,371	\$ 5,105	\$ 11,794	\$ 2,972	\$ 8,509	\$ 469
<u>Maintenance Line Transformers</u>									
18.00	Maintenance Line Transformers	d 3.05	\$ 16,119	\$ 4,783	\$ 1,974	\$ 4,560	\$ 1,149	\$ 3,290	\$ 363
18.01	Maintenance Line Transformers-Labor	d 3.05	\$ 783	\$ 232	\$ 96	\$ 221	\$ 56	\$ 160	\$ 18
18.02	Maintenance Line Transformers-Benefits	d 3.05	\$ (511)	\$ (152)	\$ (63)	\$ (145)	\$ (36)	\$ (104)	\$ (11)
18.03	Maintenance Line Transformers-Transportation	d 3.05	\$ 61	\$ 18	\$ 8	\$ 17	\$ 4	\$ 13	\$ 1
18.04	Total Maintenance Line Transformers	Sum	\$ 16,452	\$ 4,882	\$ 2,014	\$ 4,654	\$ 1,173	\$ 3,358	\$ 370

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d/b/a New River Light and Power Company

Cost of Service Analysis **Modified with AMI Data Allocation Factors**
For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
<u>Maintenance Street Lights</u>									
19.00	Maintenance Street Lights	c 1.06	\$ 16,179	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,179
19.01	Maintenance Street Lights-Labor	c 1.06	\$ 17,761	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,761
19.02	Maintenance Street Lights-Benefits	c 1.06	\$ 8,363	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 8,363
19.03	Maintenance Street Lights-Transportation	c 1.06	\$ 2,375	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,375
19.04	Total Maintenance Street Lights	Sum	\$ 44,677	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 44,677
<u>Maintenance-Meters</u>									
20.00	Maintenance-Meters	c 4.04	\$ 6,431	\$ 4,973	\$ 1,163	\$ 201	\$ 13	\$ 80	\$ -
20.01	Maintenance-Meters-Labor	c 4.04	\$ 52,485	\$ 40,587	\$ 9,489	\$ 1,644	\$ 108	\$ 656	\$ -
20.02	Maintenance-Meters-Benefits	c 4.04	\$ 30,227	\$ 23,375	\$ 5,465	\$ 947	\$ 62	\$ 378	\$ -
20.03	Maintenance-Meters-Transportation	c 4.04	\$ 5,451	\$ 4,215	\$ 986	\$ 171	\$ 11	\$ 68	\$ -
20.04	Total Maintenance-Meters	Sum	\$ 94,594	\$ 73,151	\$ 17,102	\$ 2,963	\$ 195	\$ 1,183	\$ -
<u>Maintenance Misc Distribution Plant</u>									
21.00	Maintenance Misc Distribution Plant	d 3.04	\$ 681	\$ 204	\$ 84	\$ 195	\$ 49	\$ 141	\$ 8
21.01	Maintenance Misc Distribution Plant-Labor	d 3.04	\$ 56,862	\$ 17,065	\$ 7,042	\$ 16,269	\$ 4,100	\$ 11,739	\$ 647
21.02	Maintenance Misc Distribution Plant-Benefits	d 3.04	\$ 15,618	\$ 4,687	\$ 1,934	\$ 4,469	\$ 1,126	\$ 3,224	\$ 178
21.03	Maintenance Misc Distribution Plant-Transportation	d 3.04	\$ 5,985	\$ 1,796	\$ 741	\$ 1,712	\$ 432	\$ 1,236	\$ 68
21.04	Total Maintenance Misc Distribution Plant	Sum	\$ 79,146	\$ 23,753	\$ 9,801	\$ 22,645	\$ 5,707	\$ 16,339	\$ 900
<u>Supervision Customer Accounts</u>									
22.00	Supervision Customer Accounts-Labor	c 4.01	\$ 30,858	\$ 23,605	\$ 5,518	\$ 956	\$ 63	\$ 382	\$ 334
22.01	Supervision Customer Accounts-Benefits	c 4.01	\$ 16,768	\$ 12,827	\$ 2,999	\$ 520	\$ 34	\$ 207	\$ 181
22.02	Supervision Customer Accounts-Transportation	c 4.01	\$ 3,681	\$ 2,816	\$ 658	\$ 114	\$ 8	\$ 46	\$ 40
22.03	Total Supervision Customer Accounts	Sum	\$ 51,307	\$ 39,248	\$ 9,176	\$ 1,590	\$ 105	\$ 635	\$ 555
<u>Meter Reading Expense</u>									
23.00	Meter Reading Expense	c 4.04	\$ 1,455	\$ 1,125	\$ 263	\$ 46	\$ 3	\$ 18	\$ -
23.01	Meter Reading Expense-Labor	c 4.04	\$ 20,742	\$ 16,040	\$ 3,750	\$ 650	\$ 43	\$ 259	\$ -
23.02	Meter Reading Expense-Benefits	c 4.04	\$ 11,790	\$ 9,117	\$ 2,132	\$ 369	\$ 24	\$ 147	\$ -
23.03	Meter Reading Expense-Transportation	c 4.04	\$ 2,238	\$ 1,730	\$ 405	\$ 70	\$ 5	\$ 28	\$ -
23.04	Total Meter Reading Expense	Sum	\$ 36,225	\$ 28,013	\$ 6,549	\$ 1,135	\$ 75	\$ 453	\$ -
<u>Customer Records</u>									
24.00	Customer Records & Collections Expense	c 4.01	\$ 144,195	\$ 110,302	\$ 25,787	\$ 4,468	\$ 294	\$ 1,784	\$ 1,559
24.01	Customer Records & Collections Expense-Labor	c 4.01	\$ 173,671	\$ 132,850	\$ 31,059	\$ 5,382	\$ 355	\$ 2,148	\$ 1,877
24.02	Customer Records & Collections Expense-Benefits	c 4.01	\$ 94,798	\$ 72,516	\$ 16,953	\$ 2,938	\$ 194	\$ 1,173	\$ 1,025
24.03	Postage	c 4.01	\$ 4,976	\$ 3,807	\$ 890	\$ 154	\$ 10	\$ 62	\$ 54
24.04	Customer Records Cash Over/Short	c 4.01	\$ 13	\$ 10	\$ 2	\$ 0	\$ 0	\$ 0	\$ 0
24.05	Customer Records - Bank Service Fees	c 4.01	\$ 17,908	\$ 13,698	\$ 3,203	\$ 555	\$ 37	\$ 222	\$ 194
24.06	Customer Records - Credit Card Fees	c 4.01	\$ 35,612	\$ 27,242	\$ 6,369	\$ 1,104	\$ 73	\$ 441	\$ 385
24.07	Total Customer Records	Sum	\$ 471,173	\$ 360,425	\$ 84,263	\$ 14,600	\$ 962	\$ 5,829	\$ 5,093

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Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis **Modified with AMI Data Allocation Factors**
For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
<u>Maintenance Of General Plant</u>									
25.00	Maintenance Of General Plant	c 4.03	\$ 69,681	\$ 28,834	\$ 9,515	\$ 15,325	\$ 3,762	\$ 10,883	\$ 1,364
25.01	Maintenance Of General Plant-Labor	c 4.03	\$ 2,284	\$ 945	\$ 312	\$ 502	\$ 123	\$ 357	\$ 45
25.02	Maintenance Of General Plant-Benefits	c 4.03	\$ 1,109	\$ 459	\$ 151	\$ 244	\$ 60	\$ 173	\$ 22
25.03	Maintenance Of General Plant-Transportation	c 4.03	\$ 149	\$ 62	\$ 20	\$ 33	\$ 8	\$ 23	\$ 3
25.04	Total Maintenance Of General Plant	Sum	\$ 73,224	\$ 30,299	\$ 9,998	\$ 16,104	\$ 3,953	\$ 11,436	\$ 1,433
26.00	Subtotal Electric Operating & Maintenance Expense		\$ 14,777,009	\$ 4,051,437	\$ 1,846,056	\$ 4,101,781	\$ 1,202,415	\$ 3,327,238	\$ 248,081
26.01	Subtotal Electric O&M Excluding Purchased Power		\$ 1,927,231	\$ 933,126	\$ 276,801	\$ 337,135	\$ 80,398	\$ 235,345	\$ 64,426
26.02	Electric O&M Excluding Purchased Power Allocator	w	100.00%	48.42%	14.36%	17.49%	4.17%	12.21%	3.34%
Electric O&M Excluding Purchased Power			\$ 1,927,231	\$ 933,126	\$ 276,801	\$ 337,135	\$ 80,398	\$ 235,345	\$ 64,426
	Customer-Related	c	\$ 925,171	\$ 632,449	\$ 152,729	\$ 50,475	\$ 8,157	\$ 28,517	\$ 52,844
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demand-Related	d	\$ 1,002,060	\$ 300,677	\$ 124,071	\$ 286,660	\$ 72,241	\$ 206,828	\$ 11,582
General & Administrative Expenses									
<u>Administration - Other</u>									
27.00	Customer Assistance Expense	w 26.02	\$ 3,379	\$ 1,636	\$ 485	\$ 591	\$ 141	\$ 413	\$ 113
27.01	Informational Advertising Expense	w 26.02	\$ 4,572	\$ 2,214	\$ 657	\$ 800	\$ 191	\$ 558	\$ 153
27.02	Administrative & General-Salaries	w 26.02	\$ 306,658	\$ 148,478	\$ 44,044	\$ 53,644	\$ 12,793	\$ 37,448	\$ 10,251
27.03	Administrative & General-Benefits	w 26.02	\$ 152,654	\$ 73,912	\$ 21,925	\$ 26,704	\$ 6,368	\$ 18,641	\$ 5,103
27.04	Office Supplies And Expenses	w 26.02	\$ 26,862	\$ 13,006	\$ 3,858	\$ 4,699	\$ 1,121	\$ 3,280	\$ 898
27.05	Consulting Fees	w 26.02	\$ 97,087	\$ 47,008	\$ 13,944	\$ 16,984	\$ 4,050	\$ 11,856	\$ 3,246
27.06	Investment Management Expense	w 26.02	\$ 23,888	\$ 11,566	\$ 3,431	\$ 4,179	\$ 997	\$ 2,917	\$ 799
27.07	Property Insurance	w 26.02	\$ 6,190	\$ 2,997	\$ 889	\$ 1,083	\$ 258	\$ 756	\$ 207
27.08	Injuries & Damages Expense	w 26.02	\$ 67,740	\$ 32,798	\$ 9,729	\$ 11,850	\$ 2,826	\$ 8,272	\$ 2,264
27.09	Injuries & Damages Expense-Labor	w 26.02	\$ 5,905	\$ 2,859	\$ 848	\$ 1,033	\$ 246	\$ 721	\$ 197
27.10	Injuries & Damages Expense-Benefits	w 26.02	\$ 3,354	\$ 1,624	\$ 482	\$ 587	\$ 140	\$ 410	\$ 112
27.11	Injuries & Damages Expense-Transportation	w 26.02	\$ 829	\$ 401	\$ 119	\$ 145	\$ 35	\$ 101	\$ 28
27.12	Institutional Advertising Expense	w 26.02	\$ 10,457	\$ 5,063	\$ 1,502	\$ 1,829	\$ 436	\$ 1,277	\$ 350
27.13	Miscellaneous General Expense	w 26.02	\$ 53,958	\$ 26,125	\$ 7,750	\$ 9,439	\$ 2,251	\$ 6,589	\$ 1,804
27.14	Total Administrative-Other	Sum	\$ 763,533	\$ 369,687	\$ 109,663	\$ 133,566	\$ 31,852	\$ 93,239	\$ 25,524
<u>ASU Administrative Support Costs</u>									
28.00	Legal	w 26.02	\$ 106,501	\$ 51,566	\$ 15,296	\$ 18,630	\$ 4,443	\$ 13,005	\$ 3,560
28.01	Human Resources	w 26.02	\$ 17,351	\$ 8,401	\$ 2,492	\$ 3,035	\$ 724	\$ 2,119	\$ 580
28.02	Information Technology	w 26.02	\$ 16,788	\$ 8,128	\$ 2,411	\$ 2,937	\$ 700	\$ 2,050	\$ 561
28.03	Administrative Supervision	w 26.02	\$ 60,940	\$ 29,506	\$ 8,753	\$ 10,660	\$ 2,542	\$ 7,442	\$ 2,037
28.04	Total ASU Administrative Support Costs	Sum	\$ 201,580	\$ 97,601	\$ 28,952	\$ 35,263	\$ 8,409	\$ 24,616	\$ 6,739

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Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Increase in Salary and Benefits									
29.00	A&G Related	w 26.02	\$ 43,881	\$ 21,246	\$ 6,302	\$ 7,676	\$ 1,831	\$ 5,359	\$ 1,467
29.01	Customer Service Related	c 4.01	\$ 27,970	\$ 21,395	\$ 5,002	\$ 867	\$ 57	\$ 346	\$ 302
29.02	Distribution Related	d 3.05	\$ 48,950	\$ 14,525	\$ 5,994	\$ 13,848	\$ 3,490	\$ 9,992	\$ 1,101
29.03	Contract Related	c 4.04	\$ 1,342	\$ 1,038	\$ 243	\$ 42	\$ 3	\$ 17	\$ -
29.04	Total Increase in Salary and Benefits	Sum	\$ 122,143	\$ 58,205	\$ 17,541	\$ 22,433	\$ 5,380	\$ 15,713	\$ 2,870
30.00	Total O&M	Sum	\$ 15,864,264	\$ 4,576,930	\$ 2,002,213	\$ 4,293,043	\$ 1,248,057	\$ 3,460,806	\$ 283,214
30.01	Total O&M Allocator		100.00%	28.85%	12.62%	27.06%	7.87%	21.82%	1.79%
30.02	Total O&M Less Purchased Power	Sum	\$ 3,014,487	\$ 1,458,618	\$ 432,957	\$ 528,397	\$ 126,041	\$ 368,914	\$ 99,559
30.03	Total O&M Less Purchased Power Allocator		100.00%	48.39%	14.36%	17.53%	4.18%	12.24%	3.30%
Total O&M Excluding Purchased Power			\$ 3,014,487	\$ 1,458,618	\$ 432,957	\$ 528,397	\$ 126,041	\$ 368,914	\$ 99,559
	Customer-Related	c	\$ 1,438,852	\$ 985,998	\$ 237,934	\$ 77,810	\$ 12,488	\$ 43,810	\$ 80,812
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demand-Related	d	\$ 1,575,634	\$ 472,620	\$ 195,022	\$ 450,587	\$ 113,553	\$ 325,104	\$ 18,748
Depreciation and Property Transaction Expense									
31.00	Depreciation	d 3.05	\$ 1,014,251	\$ 300,967	\$ 124,191	\$ 286,937	\$ 72,311	\$ 207,028	\$ 22,817
31.01	Amortization of Regulatory Asset and Gain on Old Trucks	d 3.04	\$ 44,560	\$ 13,373	\$ 5,518	\$ 12,750	\$ 3,213	\$ 9,199	\$ 507
31.02	Gain/Loss Disposing Utility Property	d 3.04	\$ 3,376	\$ 1,013	\$ 418	\$ 966	\$ 243	\$ 697	\$ 38
31.03	Sale Of Surplus Property	d 3.04	\$ (850)	\$ (255)	\$ (105)	\$ (243)	\$ (61)	\$ (176)	\$ (10)
31.04	Total Depreciation and Property Transaction Expense	Sum	\$ 1,061,336	\$ 315,098	\$ 130,022	\$ 300,409	\$ 75,706	\$ 216,749	\$ 23,352
Interest Expense									
Interest Expense:									
32.00	Interest Expense Consumer Deposits	c REV1	\$ 12,933	\$ 3,943	\$ 1,635	\$ 3,160	\$ 963	\$ 2,968	\$ 264
32.01	Total Interest Expense	Sum	\$ 12,933	\$ 3,943	\$ 1,635	\$ 3,160	\$ 963	\$ 2,968	\$ 264
Total Expenses									
33.00	Total Expenses		\$ 16,938,534	\$ 4,895,972	\$ 2,133,870	\$ 4,596,613	\$ 1,324,726	\$ 3,680,523	\$ 306,831
33.01	Total Expenses Less Purchased Power		\$ 4,088,756	\$ 1,777,660	\$ 564,614	\$ 831,966	\$ 202,710	\$ 588,631	\$ 123,176
Total Expenses			\$ 16,938,534	\$ 4,895,972	\$ 2,133,870	\$ 4,596,613	\$ 1,324,726	\$ 3,680,523	\$ 306,831
	Customer-Related	c	\$ 1,385,684	\$ 996,312	\$ 241,059	\$ 81,228	\$ 13,468	\$ (27,459)	\$ 81,076
	Energy-Related	e	\$ 4,893,995	\$ 1,370,152	\$ 552,258	\$ 1,334,524	\$ 441,564	\$ 1,115,600	\$ 79,897
	Demand-Related	d	\$ 10,658,855	\$ 2,529,507	\$ 1,340,553	\$ 3,180,861	\$ 869,694	\$ 2,592,382	\$ 145,858
Total Expenses Less Purchased Power			\$ 4,088,756	\$ 1,777,660	\$ 564,614	\$ 831,966	\$ 202,710	\$ 588,631	\$ 123,176
	Customer-Related	c	\$ 1,451,785	\$ 989,942	\$ 239,569	\$ 80,970	\$ 13,451	\$ 46,778	\$ 81,076
	Energy-Related	e	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Demand-Related	d	\$ 2,636,971	\$ 787,718	\$ 325,045	\$ 750,996	\$ 189,259	\$ 541,853	\$ 42,100

Docket No. E-34, Sub 46
Appalachian State University
d/b/a New River Light and Power Company
Cost of Service Analysis Modified with AMI Data Allocation Factors
For Twelve Months Ended December 31, 2016

Line	Description	Allocation Factors	Total System	Residential	Commercial Non-Demand	Commercial Demand	Comm Demand High LF >65%	ASU Campus	Security Lighting
Net Income and Return on Rate Base									
34.00	Net Income	Sum	\$ 35,532	\$ 343,340	\$ 16,667	\$ (474,179)	\$ (71,163)	\$ 184,029	\$ 36,837
Rate Base									
35.00	Plant In Service	d 3.05	\$ 30,737,879	\$ 9,121,107	\$ 3,763,741	\$ 8,695,894	\$ 2,191,457	\$ 6,274,195	\$ 691,485
35.01	Less: Accumulated Depreciation	d 3.05	\$ (12,266,448)	\$ (3,639,925)	\$ (1,501,982)	\$ (3,470,237)	\$ (874,536)	\$ (2,503,819)	\$ (275,948)
35.02	Net Plant in Service	Sum	\$ 18,471,431	\$ 5,481,181	\$ 2,261,760	\$ 5,225,657	\$ 1,316,920	\$ 3,770,376	\$ 415,537
35.03	Construction Work in Progress	d 3.05	\$ 62,292	\$ 18,485	\$ 7,627	\$ 17,623	\$ 4,441	\$ 12,715	\$ 1,401
35.04	Investments - Blue Ridge Electric Membership Corporation	d 3.03	\$ 6,973,506	\$ 2,212,990	\$ 848,418	\$ 1,987,372	\$ 524,260	\$ 1,317,118	\$ 83,347
35.05	Investments - North Carolina Electric Membership Corporation	d 3.03	\$ 407,837	\$ 129,424	\$ 49,619	\$ 116,229	\$ 30,661	\$ 77,030	\$ 4,874
35.06	Regulatory Asset (Unamortized Old Meters)	c 4.04	\$ 139,708	\$ 108,038	\$ 25,258	\$ 4,376	\$ 288	\$ 1,747	\$ -
35.07	Regulatory Asset (Hydro Removal and Clean-up)	d 3.04	\$ 52,500	\$ 15,756	\$ 6,502	\$ 15,021	\$ 3,786	\$ 10,838	\$ 597
35.08	Regulatory Liability on Gain from Old Trucks	d 3.04	\$ 13,381	\$ 4,016	\$ 1,657	\$ 3,829	\$ 965	\$ 2,762	\$ 152
35.09	Prepayments	d 3.04	\$ 34,573	\$ 10,376	\$ 4,282	\$ 9,892	\$ 2,493	\$ 7,137	\$ 393
35.10	Working Capital	d 3.04	\$ 895,981	\$ 268,896	\$ 110,958	\$ 256,361	\$ 64,606	\$ 184,968	\$ 10,193
35.11	Total Rate Base	Sum	\$ 27,051,210	\$ 8,249,163	\$ 3,316,080	\$ 7,636,360	\$ 1,948,419	\$ 5,384,692	\$ 516,495
35.12	Current Return on Rate Base	Calc	0.13%	4.16%	0.50%	-6.21%	-3.65%	3.42%	7.13%
Updated with the Stipulated ROR of 6.525% in place of the originally requested 6.97%.									
36.00	Proposed Return on Rate Base	Pulled	6.525%	6.525%	6.525%	6.525%	6.525%	6.525%	6.525%
36.01	Targeted Net Income	Calc	\$ 1,765,091	\$ 538,258	\$ 216,374	\$ 498,273	\$ 127,134	\$ 351,351	\$ 33,701
36.02	Revenue Requirement before Uncollectible Accounts Adder	Sum	\$ 18,565,140	\$ 5,328,185	\$ 2,327,715	\$ 5,086,336	\$ 1,451,668	\$ 4,030,704	\$ 340,532
36.03	Additional Revenue Requirement to Cover Uncollectible Accounts	c REV2	\$ 21,114	\$ 8,355	\$ 3,464	\$ 6,696	\$ 2,040	\$ -	\$ 559
36.04	Additional Revenue Requirement to Cover Regulatory Commission Expense	c REV1	\$ 26,105	\$ 7,960	\$ 3,300	\$ 6,379	\$ 1,943	\$ 5,991	\$ 533
36.05	Total Revenue Requirement to Recover from Rates	Sum	\$ 18,612,359	\$ 5,344,500	\$ 2,334,478	\$ 5,099,411	\$ 1,455,651	\$ 4,036,695	\$ 341,624
36.06	Total Current Rate Revenues	Pulled	\$ 16,835,581	\$ 5,133,268	\$ 2,128,008	\$ 4,113,885	\$ 1,253,370	\$ 3,863,382	\$ 343,668
36.07	Total Revenue Increase(Decrease) Required	Sum	\$ 1,776,778	\$ 211,232	\$ 206,470	\$ 985,526	\$ 202,281	\$ 173,313	\$ (2,044)
36.08	Total Percent Increase(Decrease) Required	Calc	10.55%	4.11%	9.70%	23.96%	16.14%	4.49%	-0.59%
36.09	Current Base Rate Revenues	Pulled	\$ 13,806,599	\$ 4,335,335	\$ 1,771,545	\$ 3,307,619	\$ 957,787	\$ 3,142,981	\$ 291,331
36.10	Base Revenue Increase(Decrease) Required	Sum	\$ 4,805,760	\$ 1,009,165	\$ 562,933	\$ 1,791,792	\$ 497,864	\$ 893,714	\$ 50,294
36.11	Base Percent Increase(Decrease) Required	Calc	34.81%	23.28%	31.78%	54.17%	51.98%	28.44%	17.26%
Total Revenue Requirement to Recover from Rates			\$ 18,565,140	\$ 5,328,185	\$ 2,327,715	\$ 5,086,336	\$ 1,451,668	\$ 4,030,704	\$ 340,532
Customer-Related			\$ 1,256,314	\$ 897,317	\$ 220,178	\$ 72,965	\$ 13,293	\$ (28,515)	\$ 81,076
Energy-Related			\$ 4,893,995	\$ 1,370,152	\$ 552,258	\$ 1,334,524	\$ 441,564	\$ 1,115,600	\$ 79,897
Demand-Related			\$ 12,414,831	\$ 3,060,716	\$ 1,555,279	\$ 3,678,847	\$ 996,810	\$ 2,943,619	\$ 179,559
Rev Req to Recover from Rates Adj. for Uncollectible Accounts & Reg. Fee			\$ 18,612,359	\$ 5,344,500	\$ 2,334,478	\$ 5,099,411	\$ 1,455,651	\$ 4,036,695	\$ 341,624
Customer-Related			\$ 1,303,533	\$ 913,632	\$ 226,941	\$ 86,040	\$ 17,277	\$ (22,525)	\$ 82,168
Energy-Related			\$ 4,893,995	\$ 1,370,152	\$ 552,258	\$ 1,334,524	\$ 441,564	\$ 1,115,600	\$ 79,897
Demand-Related			\$ 12,414,831	\$ 3,060,716	\$ 1,555,279	\$ 3,678,847	\$ 996,810	\$ 2,943,619	\$ 179,559

Exhibit 1**New River Light and Power****2018 AMI Hourly Load Data (kW)****Summary of NRLP Load During DEC 20CP Peak Times**

Line	Values	Residential	Gen Comm	Comm DMD	High LF DMD	ASU	Street Lighting	Retail Total System	NRLP Total Sytem	Retail Difference	% Retail Difference	Missing Data Points	% of Total
1	Count of Meter	6,369	1,489	258	17	103							
2	Sum of 1-6/19-17	5,442	3,832	8,817	2,638	8,120	399	29,248	31,609	(2,361)	-7.5%	1,155	14.0%
3	Sum of 2-6/19-16	5,077	3,895	8,910	2,589	8,311	399	29,180	31,623	(2,443)	-7.7%	1,086	13.2%
4	Sum of 3-6/18-17	5,949	3,867	9,680	2,705	8,273	399	30,874	32,336	(1,462)	-4.5%	859	10.4%
5	Sum of 4-6/19-15	4,888	3,859	8,728	2,505	8,464	399	28,844	31,098	(2,254)	-7.2%	978	11.9%
6	Sum of 5-6/19-18	5,835	3,331	8,594	2,625	7,948	399	28,732	30,605	(1,873)	-6.1%	1,046	12.7%
7	Sum of 6-7/11-17	5,893	3,999	9,471	2,586	7,925	399	30,274	31,312	(1,038)	-3.3%	392	4.8%
8	Sum of 7-6/18-16	5,436	3,962	9,849	2,689	8,422	399	30,757	32,342	(1,585)	-4.9%	1,033	12.5%
9	Sum of 8-7/11-18	6,209	3,473	8,566	2,544	7,549	399	28,740	29,478	(738)	-2.5%	247	3.0%
10	Sum of 9-7/3-17	5,822	3,928	10,028	2,779	7,689	399	30,645	32,271	(1,626)	-5.0%	923	11.2%
11	Sum of 10-6/18-18	6,321	3,387	8,578	2,647	7,756	399	29,088	30,896	(1,808)	-5.9%	862	10.5%
12	Sum of 11-8/30-17	6,528	3,966	9,435	2,574	9,391	399	32,292	33,313	(1,021)	-3.1%	216	2.6%
13	Sum of 12-7/3-18	6,323	3,546	9,418	2,741	7,812	399	30,239	31,688	(1,449)	-4.6%	773	9.4%
14	Sum of 13-7/11-16	5,506	4,158	9,960	2,676	8,242	399	30,941	32,583	(1,642)	-5.0%	816	9.9%
15	Sum of 14-7/3-16	5,492	4,040	10,109	2,759	7,867	399	30,666	32,518	(1,852)	-5.7%	994	12.1%
16	Sum of 15-6/18-15	5,080	3,878	9,374	2,684	8,256	399	29,672	31,727	(2,055)	-6.5%	1,046	12.7%
17	Sum of 16-6/20-15	5,075	3,994	8,877	2,643	8,028	399	29,016	31,500	(2,484)	-7.9%	1,063	12.9%
18	Sum of 17-8/29-17	6,490	4,075	9,362	2,566	9,562	399	32,454	33,677	(1,223)	-3.6%	464	5.6%
19	Sum of 18-8/30-16	6,269	4,142	9,995	2,658	9,752	399	33,214	34,377	(1,163)	-3.4%	316	3.8%
20	Sum of 19-6/20-16	5,072	3,918	8,631	2,608	7,823	399	28,451	30,897	(2,446)	-7.9%	1,097	13.3%
21	Sum of 20-8/7-17	5,816	3,908	9,428	2,670	7,868	399	30,088	31,299	(1,211)	-3.9%	620	7.5%
22													
23	Average	5,726	3,858	9,290	2,644	8,253	399	30,171	31,857	(1,686)	-5.3%	799	9.7%
24	Percent of total	18.98%	12.79%	30.79%	8.76%	27.35%	1.32%	100.00%					

Exhibit 2**New River Light and Power****2018 AMI Hourly Load Data (kW)****Summary of NRLP Load During DEC Transmission Peak Times**

Line	Values	Residential	Gen Comm	Comm DMD	High LF DMD	ASU	Street Lighting	Retail Total System	NRLP Total Sytem	Retail Difference	% Retail Difference	Missing Data Points	% of Total
1	Count of Meter #	6,369	1,489	258	17	103							
2	Sum of 1/5-8	17,906	5,699	11,730	2,547	4,749	399	43,031	48,100	(5,069)	-10.5%	917	11.1%
3	Sum of 2/3-9	12,943	4,094	9,602	2,456	4,521	399	34,014	36,022	(2,008)	-5.6%	547	6.6%
4	Sum of 3/15-8	12,591	3,999	9,379	2,380	5,648	399	34,396	35,984	(1,588)	-4.4%	269	3.3%
5	Sum of 4/17-8	12,806	3,824	8,604	2,348	5,520	399	33,502	34,519	(1,017)	-2.9%	173	2.1%
6	Sum of 5/14-18	5,659	3,173	8,252	2,501	6,075	399	26,058	27,262	(1,204)	-4.4%	434	5.3%
7	Sum of 6/19-16	5,077	3,895	8,910	2,589	8,311	399	29,180	31,623	(2,442)	-7.7%	1,086	13.2%
8	Sum of 7/11-17	5,893	3,999	9,471	2,586	7,925	399	30,274	31,312	(1,038)	-3.3%	392	4.8%
9	Sum of 8/30-17	6,528	3,966	9,435	2,574	9,391	399	32,292	33,313	(1,021)	-3.1%	216	2.6%
10	Sum of 9/6-17	6,110	3,901	9,428	2,581	9,401	399	31,821	33,237	(1,416)	-4.3%	648	7.9%
11	Sum of 10/5-17	6,421	3,545	9,447	2,521	8,733	399	31,066	32,413	(1,347)	-4.2%	597	7.2%
12	Sum of 11/28-8	16,663	5,110	11,081	2,505	5,541	399	41,299	42,846	(1,546)	-3.6%	220	2.7%
13	Sum of 12/6-8	13,441	4,435	9,865	2,342	5,525	399	36,008	36,910	(902)	-2.4%	114	1.4%
14													
15	Average	10,170	4,137	9,600	2,494	6,778	399	33,578	35,295	(1,717)	-4.9%	468	5.7%
16	Percent of Total	30.29%	12.32%	28.59%	7.43%	20.19%	1.19%	100.00%					

Exhibit 3**New River Light and Power****2018 AMI Hourly Load Data (kW)****Summary of NRLP Load During BREMCO's System Peak Times**

Line	Values	Residential	Gen Comm	Comm DMD	High LF DMD	ASU	Street Lighting	Retail Total System	NRLP Total Sytem	Retail Difference	% Retail Difference	Missing Data Points	% of Total
1	Count of Meter #	6,369	1,489	258	17	103							
2	Sum of 1/5-8	17,906	5,699	11,730	2,547	4,749	399	43,031	48,100	(5,069)	-10.5%	919	11.2%
3	Sum of 2/3-9	12,943	4,094	9,602	2,456	4,521	399	34,014	36,022	(2,008)	-5.6%	548	6.7%
4	Sum of 3/9-8	12,635	4,413	10,023	2,427	4,797	399	34,693	36,041	(1,348)	-3.7%	321	3.9%
5	Sum of 4/17-8	12,806	3,824	8,604	2,348	5,520	399	33,502	34,519	(1,017)	-2.9%	173	2.1%
6	Sum of 5/14-18	5,659	3,173	8,252	2,501	6,075	399	26,058	27,262	(1,204)	-4.4%	434	5.3%
7	Sum of 6/18-18	6,321	3,387	8,578	2,647	7,756	399	29,088	30,896	(1,808)	-5.9%	862	10.5%
8	Sum of 7/3-18	6,323	3,546	9,418	2,741	7,812	399	30,239	31,688	(1,449)	-4.6%	773	9.4%
9	Sum of 8/16-17	6,357	4,029	9,921	2,648	8,387	399	31,741	33,197	(1,456)	-4.4%	623	7.6%
10	Sum of 9/4-18	7,209	3,529	8,865	2,589	9,342	399	31,933	33,210	(1,277)	-3.8%	552	6.7%
11	Sum of 10/22-9	8,823	3,482	8,189	2,356	5,612	399	28,862	30,158	(1,296)	-4.3%	437	5.3%
12	Sum of 11/28-8	16,663	5,110	11,081	2,505	5,541	399	41,299	42,846	(1,546)	-3.6%	220	2.7%
13	Sum of 12/6-8	13,441	4,435	9,865	2,342	5,525	399	36,008	36,910	(902)	-2.4%	114	1.4%
14													
15	Average	10,590	4,060	9,511	2,509	6,303	399	33,372	35,071	(1,698)	-4.8%	498	6.0%
16	Percent of Total	31.73%	12.17%	28.50%	7.52%	18.89%	1.20%	100.00%					

Exhibit 4

New River Light and Power

2018 AMI Hourly Load Data (kW)

Summary of NRLP Load During NRLP's System Peak Times

Line	Values	Residential	Gen Comm	Comm DMD	High LF DMD	ASU	Street Lighting	Retail Total System	NRLP Total Sytem	Retail Difference	% Retail Difference	Missing Data Points	% of Total
1	Count of Meter #	6,369	1,489	258	17	103							
2	Sum of 1/18-10	19,415	5,993	11,938	2,570	6,033	399	46,348	49,423	(3,075)	-6.2%	565	6.9%
3	Sum of 2/2-19	14,591	4,149	9,791	2,422	5,670	399	37,022	39,431	(2,409)	-6.1%	431	5.2%
4	Sum of 3/12-10	10,162	3,766	8,386	2,312	5,064	399	30,088	38,789	(8,701)	-22.4%	206	2.5%
5	Sum of 4/17-9	12,745	4,209	9,035	2,373	5,904	399	34,665	36,172	(1,507)	-4.2%	362	4.4%
6	Sum of 5/31-17	5,072	3,573	8,848	2,583	7,536	399	28,011	29,368	(1,356)	-4.6%	705	8.6%
7	Sum of 6/18-16	5,436	3,962	9,849	2,689	8,422	399	30,757	32,342	(1,584)	-4.9%	1,033	12.5%
8	Sum of 7/5-16	5,778	4,091	10,120	2,661	8,184	399	31,233	32,737	(1,504)	-4.6%	763	9.3%
9	Sum of 8/30-16	6,269	4,142	9,995	2,658	9,752	399	33,214	34,377	(1,163)	-3.4%	316	3.8%
10	Sum of 9/7-15	6,351	4,002	10,163	2,658	9,387	399	32,959	34,345	(1,385)	-4.0%	644	7.8%
11	Sum of 10/5-15	5,859	3,755	9,929	2,555	9,095	399	31,591	33,165	(1,574)	-4.7%	784	9.5%
12	Sum of 11/28-10	17,446	5,835	11,679	2,448	6,158	399	43,964	45,827	(1,863)	-4.1%	406	4.9%
13	Sum of 12/5-19	14,674	3,983	9,012	2,296	5,921	399	36,284	37,714	(1,430)	-3.8%	76	0.9%
14													
15	Average	10,316	4,288	9,896	2,519	7,260	399	34,678	36,974	(2,296)	-6.2%	524	6.4%
16	Percent of Total	29.75%	12.37%	28.54%	7.26%	20.94%	1.15%	100.00%					
17	Adjusted for March Data:												
18	The hourly load data obtained from the AMI system for the retail customer classes was obviously wrong for March 12, 2018 at 10:00AM. Data points at 9:00AM and 11:00AM were also evaluated and were not accurate. Since this hour was not correct, the hourly load data for March 9, 2018 at 8:00AM was used as a proxy. This was the BREMCO system peak hour for March.												
19													
20	Sum of 1/18-10	19,415	5,993	11,938	2,570	6,033	399	46,348					
21	Sum of 2/2-19	14,591	4,149	9,791	2,422	5,670	399	37,022					
22	Sum of 3/9-8	12,635	4,413	10,023	2,427	4,797	399	34,693					
23	Sum of 4/17-9	12,745	4,209	9,035	2,373	5,904	399	34,665					
24	Sum of 5/31-17	5,072	3,573	8,848	2,583	7,536	399	28,011					
25	Sum of 6/18-16	5,436	3,962	9,849	2,689	8,422	399	30,757					
26	Sum of 7/5-16	5,778	4,091	10,120	2,661	8,184	399	31,233					
27	Sum of 8/30-16	6,269	4,142	9,995	2,658	9,752	399	33,214					
28	Sum of 9/7-15	6,351	4,002	10,163	2,658	9,387	399	32,959					
29	Sum of 10/5-15	5,859	3,755	9,929	2,555	9,095	399	31,591					
30	Sum of 11/28-10	17,446	5,835	11,679	2,448	6,158	399	43,964					
31	Sum of 12/5-19	14,674	3,983	9,012	2,296	5,921	399	36,284					
32													
33	Average	10,523	4,342	10,032	2,528	7,238	399	35,062					
34	Percent of Total	30.01%	12.38%	28.61%	7.21%	20.64%	1.14%	100.00%					

Exhibit 5**New River Light and Power****2018 AMI Hourly Load Data (kWh)****Summary of Customer Class Energy Consumption**

Line	Values	Residential	Gen Comm	Comm DMD	High LF DMD	ASU	Street Lighting	Retail Total System	NRLP Total Sytem	Retail Difference	% Retail Difference	Missing Data Points	% of Total
1	Count of Meter #	6,369	1,489	258	17	103							
2	Sum of Jan	8,713,051	2,953,216	6,377,116	1,681,637	3,616,983	296,755	23,638,758	24,473,586	(834,828)	-3.4%	-	0.0%
3	Sum of Feb	5,198,200	1,952,488	4,502,901	1,453,454	3,598,561	268,037	16,973,641	17,458,570	(484,929)	-2.8%	-	0.0%
4	Sum of Mar	6,217,738	2,280,570	5,101,257	1,579,934	3,667,505	296,755	19,143,759	19,761,713	(617,954)	-3.1%	-	0.0%
5	Sum of Apr	4,641,782	1,797,734	4,298,038	1,487,302	3,722,908	287,182	16,234,946	16,720,020	(485,074)	-2.9%	-	0.0%
6	Sum of May	3,401,198	1,677,188	4,502,478	1,649,116	4,195,744	296,755	15,722,479	16,229,331	(506,852)	-3.1%	-	0.0%
7	Sum of Jun	3,327,819	1,690,923	4,501,468	1,592,349	4,212,811	287,182	15,612,552	16,568,130	(955,578)	-5.8%	-	0.0%
8	Sum of Jul	3,640,599	1,890,127	5,005,613	1,768,130	4,742,686	296,755	17,343,910	17,359,704	(15,794)	-0.1%	-	0.0%
9	Sum of Aug	3,769,963	1,841,299	4,838,809	1,715,817	4,908,000	296,755	17,370,643	17,982,273	(611,630)	-3.4%	-	0.0%
10	Sum of Sep	4,014,960	1,722,563	4,573,487	1,640,756	5,001,722	287,182	17,240,670	17,825,297	(584,627)	-3.3%	-	0.0%
11	Sum of Oct	4,360,770	1,842,872	4,531,259	1,609,811	4,336,319	296,755	16,977,786	17,457,995	(480,209)	-2.8%	-	0.0%
12	Sum of Nov	6,061,884	2,123,737	4,893,623	1,546,984	3,585,967	287,182	18,499,377	19,089,967	(590,590)	-3.1%	-	0.0%
13	Sum of Dec	6,571,507	2,378,633	5,235,322	1,585,197	3,198,206	296,755	19,265,620	19,842,741	(577,121)	-2.9%	-	0.0%
14													
15	Total	59,919,471	24,151,350	58,361,371	19,310,487	48,787,412	3,494,053	214,024,144	220,769,327	(6,745,183)	-3.1%	-	0.0%
16	Percent of Total	28.00%	11.28%	27.27%	9.02%	22.80%	1.63%	100.00%					

CERTIFICATE OF SERVICE

I hereby certify that I have this day served a copy of the foregoing by electronic delivery to the following person at the following address which is the last address known to me:

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This the 19th day of June, 2019.

/s/ Michael S. Colo

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