

**APPALACHIAN STATE UNIVERSITY  
DBA NEW RIVER LIGHT AND POWER COMPANY  
DOCKET NO. E-34, SUB 46**

**DIRECT TESTIMONY OF EDMOND MILLER**

**ON BEHALF OF  
APPALACHIAN STATE UNIVERSITY  
DBA NEW RIVER LIGHT AND POWER COMPANY**

**JULY 28, 2017**

1   **Q:   PLEASE STATE YOUR NAME, POSITION, AND BUSINESS**  
2       **ADDRESS.**

3   **A:**   My name is Edmond C. Miller. I am the General Manager of New  
4       River Light and Power Company (“NRLP”), which is an operating  
5       unit of Appalachian State University (“ASU”). My business address  
6       is 146 Faculty Street Extension, Boone, North Carolina 28607.

7   **Q:   DO YOU HOLD ANY PROFESSIONAL REGISTRATIONS?**

8   **A:**   Yes. I am a registered professional engineer in the States of North  
9       Carolina and South Carolina.

10   **Q:   WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS**  
11       **PROCEEDING?**

12   **A:**   The purpose of my testimony is to provide an overview of NRLP  
13       along with key facts leading to the need for the 10.42% rate increase  
14       requested in this proceeding.

15   **Q:   PLEASE EXPLAIN THE STRUCTURE OF NRLP IN**  
16       **RELATION TO ASU.**

17   **A:**   NRLP was started in 1915 by Dr. Blanford Dougherty, President of  
18       the Appalachian Training School (now ASU), who commissioned the  
19       building of Boone’s first electric generating plant. NRLP has been  
20       serving Appalachian State University and the Town of Boone since  
21       that time. NRLP is an operating unit of ASU. NRLP maintains a staff  
22       of 26 employees, including both administrative and operating  
23       personnel. Other services required to operate the utility are provided  
24       by ASU. These services include legal, human resources, information  
25       technology, and administrative supervision (facilities management  
26       and financial services).

27       While ASU owns NRLP, it is also the largest consumer of power on  
28       the NRLP system. NRLP also serves other customers in the Town of  
29       Boone.

30       As a state-run utility, NRLP is subject to regulation of its rates by the  
31       North Carolina Utilities Commission (“NCUC”). NRLP submits  
32       annual reports and updates of its Purchased Power Adjustment  
33       (“PPA”) and must receive NCUC approval for any changes in its base  
34       rates.

35    **Q:    HOW DOES NRLP COMPARE TO OTHER UTILITIES IN**  
36            **THE STATE OF NORTH CAROLINA?**

37    **A:**    NRLP is similar to a number of municipal utilities in the State,  
38            serving primarily residential and commercial load with only limited  
39            large commercial load. ASU makes up approximately 28% of energy  
40            use on the NRLP system. NRLP has a total of 8500 metered  
41            customers and had a peak load of approximately 50.2 MW in 2015.

42            Key performance reliability indicators are significantly more  
43            favorable than other utilities in the state, including the System  
44            Average Interruption Duration Index (“SAIDI”) and System Average  
45            Interruption Frequency (SAIFI). Table 1 below summarizes the top  
46            ten utilities in North Carolina by their SAIDI as provided in the  
47            United States Department of Energy, Energy Information  
48            Administration (“EIA”) 2015 published data.

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**Table 1: 2015 EIA Published SAIDI**

Ranking	Utility	SAIDI
1	City of New Bern	4.169
2	City of Wilson	13.860
3	New River Light & Power Co	15.802
4	City of Statesville	34.540
5	Brunswick Electric Member Corp	47.820
6	Wake Electric Membership Corp	50.200
7	City of Rocky Mount	50.500
8	Rutherford Elec Member Corp	55.370
9	City of Concord	55.800
10	Town of High Point	60.360
12	Blue Ridge Elec Member Corp	81.600
23	Duke Energy Carolinas, LLC	143.000

Table 2 below summarizes the top ten utilities in North Carolina by their SAIFI as provided in the EIA 2015 published data.

**Table 2: 2015 EIA Published SAIFI**

Ranking	Utility	SAIFI
1	New River Light & Power Co	0.200
2	City of Wilson	0.368
3	City of Statesville	0.410
4	City of New Bern	0.600
5	Mountain Electric Coop, Inc	0.630
6	City of Concord	0.700
7	Union Electric Membership Corp	0.770
8	Rutherford Elec Member Corp	0.786
9	Brunswick Electric Member Corp	0.800
10	Surry-Yadkin Elec Member Corp	0.840
14	Duke Energy Carolinas, LLC	0.990
18	Blue Ridge Elec Member Corp	1.190

63 NRLP's rates are also favorable when compared to other utilities in  
64 the State.

65 Each year, EIA publishes a comparison of rates for utilities by the  
66 state. For the last two years, NRLP has been shown to have the  
67 lowest residential rates in the state. Table 3 below summarizes this  
68 data for 2015.

69 **Table 3: 2015 EIA Published Average Residential Rates**

Ranking	Utility	Average (cents/kWh)
1	New River Light & Power Co	10.10
2	Town of Apex	10.38
3	City of Kings Mountain	10.40
4	City of Concord	10.44
5	Mountain Electric Coop, Inc	10.51
6	Duke Energy Carolinas, LLC	10.62
7	Virginia Electric & Power Co	10.63
8	Rutherford Elec Member Corp	11.01
9	Duke Energy Progress	11.01
10	EnergyUnited Elec Member Corp	11.01
25	Blue Ridge Elec Member Corp	12.50

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72 While NRLP compares favorably to other utilities in the State, it also  
73 has significant differences that create challenges in its operations.

74 **Q: WHAT ARE THE SIGNIFICANT DIFFERENCES BETWEEN**  
75 **NRLP AND OTHER UTILITIES IN THE STATE?**

76    **A:**    While NRLP is significantly smaller than investor-owned utilities in  
77           the State, it is one of only two state-run electric utilities that is subject  
78           to NCUC regulation. Municipal and cooperative electric systems  
79           which are more comparable in size and operations are not subject to  
80           NCUC regulation. While this, in and of itself, is not problematic,  
81           there is a significant regulatory lag that is built into the rate case and  
82           purchased power adjustment process that results in delays of  
83           implementing the necessary rate increases.

84           Another significant difference is the isolation of NRLP on the  
85           transmission grid. While most utilities in the State are directly  
86           interconnected with a transmission-providing investor-owned electric  
87           utility, NRLP is isolated and is only interconnected with Blue Ridge  
88           Electric Membership Corporation (“Blue Ridge”). Blue Ridge  
89           provides a bundled generation and transmission product to NRLP;  
90           however, the generation portion of the rate is essentially a pass-  
91           through of costs under Blue Ridge’s power supply arrangement with  
92           Duke Energy Carolinas (“DEC”). NRLP, unlike other utilities in the  
93           State, has no input on the wholesale transactions between DEC and  
94           Blue Ridge. Furthermore, Blue Ridge’s rates are not regulated by the  
95           Federal Energy Regulatory Commission (“FERC”) and Blue Ridge

96 does not have an Open Access Transmission Tariff (“OATT”).  
97 NRLP, therefore, has no recourse on costs incurred under its  
98 arrangement with Blue Ridge. This arrangement is expected to  
99 continue through 2021. After that time, NRLP has negotiated a new  
100 wholesale power supply arrangement that will be delivered to NRLP  
101 through Blue Ridge as its transmission provider. NRLP is in the  
102 process of negotiating with Blue Ridge for an unbundled transmission  
103 rate.

104 **Q: WHEN WAS NRLP’S LAST BASE RATE CASE BEFORE THE**  
105 **NORTH CAROLINA UTILITIES COMMISSION?**

106 **A:** While NRLP files annual updates to its PPA, its last filing to change  
107 base rates was made in 1996—over 20 years ago. That case was  
108 NCUC Docket E-34 Sub 32.

109 **Q: HOW WAS NRLP ABLE TO MAINTAIN THE PRESENT**  
110 **BASE RATES SINCE THE LAST FILING IN 1996?**

111 **A:** During the first decade following the rate case, NRLP experienced  
112 sufficient load growth to meet increases in its costs of operations at  
113 the rates that were approved in that proceeding. Operating margins  
114 were sufficient to provide the required return on investment. In  
115 addition, while ASU incurs a significant amount of administrative

116 costs on behalf of NRLP, all of those costs have not historically been  
117 recovered from NRLP's customers.

118 **Q: WHAT ARE SOME OF THE FACTORS THAT HAVE LED TO**  
119 **THE NEED FOR A BASE RATE INCREASE AT THIS TIME?**

120 **A:** Over the last several years, a number of factors have combined that  
121 have led to NRLP's need for a base rate increase at this time.

122 1) From 1996 to 2015, NRLP's revenues minus operating expenses  
123 and depreciation declined 11%, while NRLP's net value of its  
124 fixed properties rose 69%. NRLP's last industrial customer  
125 terminated service in 2013. Metered customers have increased  
126 20%, while kWh sales have only increased 16%. Over the 20-  
127 year period from 1996 through 2015, use per customer rose to its  
128 highest point in 2010, then declined. In 2015, NRLP experienced  
129 the lowest use per customer (residential and commercial  
130 combined) of 26,252 kilowatt-hours since the established low of  
131 26,238 kilowatt-hours in 1997. In 2015, NRLP's kilowatt-hour  
132 sales were 208,074,000-- a low which brought it back to pre-2001  
133 sales levels.

134 2) With the economic downturn, NRLP lost all its industrial load and  
135 now serves only residential and commercial customers. This



136 resulted in a loss of revenue of approximately \$500,000 a year.  
137 From 2011 to 2012, the industrial revenues dropped from  
138 \$517,988 to \$317,177, then declined to only \$16,715 in 2013  
139 before complete termination. Industrial sales had averaged  
140 6,390,341 kilowatt-hours from 2009 to 2011, then dropped to  
141 3,527,400 in 2012 before termination in 2013.

142 3) During this time, NRLP has invested in advancing technology and  
143 upgrades for its system, including a Supervisory Control and Data  
144 Acquisition system (“SCADA”), a new substation and upgrades to  
145 the existing substations, a new phone system, a Geographical  
146 Information System (“GIS”), upgrades to the customer service  
147 and billing software and creation of a new Local Area Network  
148 (“LAN”) that is separate from ASU’s network that is used for  
149 other administrative functions, distribution system expansions and  
150 upgrades, an AutoCad design program for system design and  
151 drawings, and renovation of NRLP’s main office building. In  
152 addition, the new systems have added costs such as monthly  
153 support and network services licensing, annual Oracle licensing,  
154 credit card processing, portal expenses, and personal computers  
155 and servers that must be replaced every 3 to 5 years. These

156 investments and added costs have been absorbed by NRLP for the  
157 past several years.

158 4) NRLP is in the process of transitioning its meters to Advanced  
159 Metering Infrastructure (“AMI”). This process will be complete  
160 in August 2017. AMI will provide numerous benefits to NRLP  
161 and its customers, including faster outage detection and  
162 restoration of service, consumer information that will allow  
163 customers to reduce electricity use during peak demand periods  
164 and take advantage of rates and programs designed to reduce costs  
165 for the consumer and NRLP.

166 5) ASU has been subsidizing NRLP in the area of administrative  
167 costs, including legal, human resources, finance, and facilities  
168 management. It is important that NRLP’s rates cover ASU’s costs  
169 of providing service and other university functions are not funding  
170 these costs.

171 6) In addition to the loss of industrial load, there has been a focused  
172 effort on reducing energy consumption through conservation.  
173 ASU has been recognized as a leader in sustainability efforts by  
174 the Federal government. ASU has entered into an energy savings  
175 performance contract and has installed energy efficient lighting

176 throughout the campus. It has created an Office of Sustainability  
177 to further address conservation and the use of renewable energy.  
178 ASU's efforts have resulted in a significant decline in energy use.  
179 From 2013 to 2016, ASU's energy use declined from 58,510,948  
180 kWh to 48,094,074 kWh for a total reduction of 10,416,874  
181 kWhs, or 17.8%. While there are some cost reductions associated  
182 with reduced energy use, NRLP must still recover its fixed costs  
183 of providing service.

184 **Q: THERE HAS BEEN A SIGNIFICANT AMOUNT OF**  
185 **CONTROVERSY AND CONCERN OVER DEC'S COAL ASH**  
186 **COSTS. IS NRLP REQUESTING ANY ACTION ON THIS**  
187 **ISSUE IN THIS PROCEEDING?**

188 **A:** Yes. As can be seen from recent contracts filed at the FERC on coal  
189 ash settlements, most of the settling entities have agreed to a concept  
190 of retail parity. NRLP's supplier, Blue Ridge, has also filed an  
191 amendment to its power supply agreement with DEC in which Blue  
192 Ridge agreed to pay DEC's coal ash costs from January 2015 forward  
193 with retail parity on the total costs to be recovered and options for the  
194 timing of payments. Under this agreement, Blue Ridge intends to  
195 pass-through any costs it incurs for coal ash. The intended result of

196 this agreement appears to be simply accepting the NCUC's decision  
197 on DEC's recovery of coal ash costs for retail customers and allowing  
198 the same level of cost recovery from Blue Ridge, with options to use  
199 the same methodology for the timing of payments. While NRLP  
200 cannot predict the outcome of the NCUC proceedings or the ultimate  
201 costs to NRLP, Blue Ridge has indicated that NRLP's allocated share  
202 of the costs has been estimated to be approximately \$3.1 million. As  
203 explained by ASU's Witness, Sheree Brown, an allocated share of  
204 DEC's Asset Retirement Obligation using the 20 coincident peak  
205 methodology could be in excess of \$3.6 million. These are substantial  
206 costs to NRLP and its customers. Under the terms of the DEC/Blue  
207 Ridge agreement, these costs would be incurred from 2018 through  
208 2021 and NRLP would be financially harmed if there is no  
209 mechanism to pass these costs on to NRLP's customers. While this  
210 would be another cost of purchased power which could run through  
211 the PPAC, NRLP believes it would be preferable to have a separate  
212 rider to recover the coal ash costs as incurred. ASU's Witness, Sheree  
213 Brown, addresses this rider in her testimony.

214 **Q: DOES NRLP HAVE ANY OTHER CONCERNS TO BE**  
215 **ADDRESSED IN THIS PROCEEDING?**

216    **A:**    Yes. NRLP is concerned with the structure of its present rates. The  
217           ASU Campus is currently served under an energy only rate structure.  
218           An energy only rate is sending the wrong pricing signal to ASU when  
219           it is considering energy efficiency or renewable generation projects on  
220           campus. Their current retail rate is just over 8 cents per kWh and that  
221           provides a significant incentive of avoided costs with these types of  
222           projects. As you know with an all energy rate, their reduction of  
223           energy consumption translates to an under recovery of NRLP fixed  
224           costs. We still want to assist ASU with its sustainability efforts by  
225           providing an appropriate rate structure that allows NRLP to recovery  
226           its fixed costs and provides all real avoided cost benefits to ASU. The  
227           rate structure we are proposing in this rate case is utilizing a master  
228           meter that currently is used for wholesale purchases at the substation  
229           that serves only the ASU campus. The proposed rate structure will  
230           have a demand charge to recover all distribution and customer specific  
231           costs in serving the ASU campus. It will also have a demand charge  
232           and energy charge to recover the purchased power costs associated  
233           with serving the ASU campus. This type of structure will allow ASU  
234           to continue its sustainability efforts and receive their true avoided

235 costs directly from the purchased power costs. It also allows NRLP to  
236 fairly recover its fixed costs for distribution service.

237 NRLP is also in the process of phasing in the use of LED lighting.  
238 We will install LED lamps as the traditional mercury-vapor, sodium-  
239 vapor and metal halide lamps reach the end of their useful life. To do  
240 this, we are proposing a new LED lighting rate schedule for all new  
241 installations and will close the existing Outdoor Lighting rate  
242 schedule to new installs.

243 **Q: PLEASE INTRODUCE NRLP'S OTHER WITNESSES IN THIS**  
244 **PROCEEDING.**

245 **A:** NRLP's other witnesses include Ms. Sheree Brown and Mr. Randall  
246 Halley of Summit Utility Advisors, Inc. ("Summit"). Ms. Brown  
247 addresses NRLP's revenue requirements and the proposed Coal Ash  
248 Cost Recovery Rider in her direct testimony. Mr. Randy Halley  
249 addresses rate of return, cost of service, and rate design.

250 **Q: DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

251 **A:** Yes, it does.

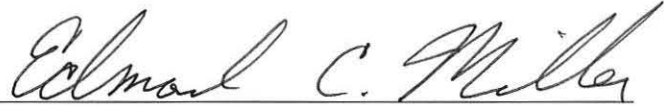
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1 STATE OF NORTH CAROLINA )  
2 )  
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5 WATAUGA COUNTY )

VERIFICATION

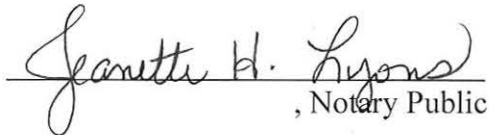
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10 PERSONALLY APPEARED before me, Edmond C. Miller who, after first being duly  
11 sworn, said that he is the General Manager of New River Light and Power Company and,  
12 as such, is authorized to make this verification; that he has read the foregoing Direct  
13 Testimony and knows the contents thereof; and that the same is true and accurate to the  
14 best of his knowledge, information and belief.

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EDMOND C. MILLER

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21 Sworn to and subscribed before me,  
22 this the 27<sup>th</sup> day of July, 2017.

23  
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25 , Notary Public

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28 My Commission Expires:

29 Aug. 8, 2021  
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