

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-34, SUB 46

In the Matter of)	TESTIMONY OF
Application of Appalachian State)	SCOTT J. SAILLOR
University d/b/a New River Light and)	PUBLIC STAFF – NORTH
Power Company for an Adjustment of)	CAROLINA UTILITIES
Rates and Charges for Electric Service)	COMMISSION
in North Carolina)	

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Testimony of Scott J. Saillor

On Behalf of the Public Staff

North Carolina Utilities Commission

December 20, 2017

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

3 A. My name is Scott J. Saillor. My business address is 430 North
4 Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am an
5 engineer with the Electric Division of the Public Staff – North Carolina
6 Utilities Commission.

7 **Q. BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

8 A. My qualifications and duties are included in Appendix A.

9 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

10 A. The purpose of my testimony is to present to the Commission my
11 recommendations on customer growth, assignment of revenue

1 requirement, and the Company's proposed rate schedules and
2 service regulations.

3 **CUSTOMER GROWTH**

4 **Q. PLEASE EXPLAIN THE CUSTOMER GROWTH ADJUSTMENT.**

5 A. The customer growth adjustment adjusts revenues and expenses by
6 an amount which represents the growth in kilowatt-hour (kWh) sales
7 due to the change in the number of customers. The revenue
8 adjustment is calculated by multiplying the total kWh adjustment by
9 average customer class rates based on annualized revenues divided
10 by per book sales.

11 **Q. DID THE COMPANY ADJUST REVENUES FOR CUSTOMER**
12 **GROWTH?**

13 A. No. The Company based total revenues on the actual kWh sales
14 and number of bills generated during the test year.

15 **Q. HOW DID YOU ADJUST FOR CUSTOMER GROWTH?**

16 A. I used regression analysis to derive equations that best fit historic
17 billing data ending December 31, 2016. In so doing, my analysis fit
18 12-, 24-, 36- and 48-month data to linear, exponential, power,
19 logarithmic, quadratic, cubic and quartic equations. The equation

1 with the highest adjusted r-square¹ value was used to calculate the
2 representative end-of-period (EOP) level of customers for the
3 Residential, Commercial Non-demand, Commercial Demand and
4 ASU Campus rate classes. The change in the number of customers
5 was determined by taking the difference between the calculated EOP
6 level of customers and the actual bills for each month of the test
7 period. The monthly average usage per customer for each month of
8 the test period was multiplied by the corresponding change in
9 number of customers for each month of the test period, and the
10 results for each month were then summed to produce the total kWh
11 usage adjustment for each customer class.

12 The results of the regression analysis are shown in Exhibit SJS-1.
13 The customer growth adjustment results in an increase to sales of
14 2,724,654 kWh, as shown in Column (e) of Exhibit SJS-1.

15 The customer growth adjustment increases the Company's
16 operating revenues by \$217,679. The adjustment for customer
17 growth, shown in Exhibit SJS-2, was provided to Public Staff witness
18 Jayasheela for incorporation into her schedules.

¹ R-square measures the goodness of fit of the regression equations to the billing data.

1 **Q. DID YOU MAKE ANY FURTHER ADJUSTMENTS TO THE**
2 **REVENUES?**

3 A. Yes. To account for changes in sales per customer, I calculated a
4 usage adjustment for each rate class. The usage adjustment was
5 based on the difference in the annual average usage per customer
6 between the test year and the year ended 2015. The difference was
7 then multiplied by the EOP level of customers. The total usage
8 adjustment decreased sales by 2,142,781 kWh, as shown in Column
9 (f) of Exhibit SJS-1.

10 The usage adjustment decreases the Company's operating
11 revenues by \$150,487. The adjustment for customer growth and
12 usage, shown in Exhibit SJS-3, was provided to Public Staff witness
13 Jayasheela for incorporation into her schedules.

14 **ASSIGNMENT OF REVENUE REQUIREMENT**

15 **Q. HOW DID YOU ASSIGN THE REVENUE REQUIREMENT**
16 **RECOMMENDED BY THE PUBLIC STAFF TO THE COMPANY'S**
17 **CUSTOMER CLASSES?**

18 A. Public Staff witness Jayasheela provided the Public Staff's
19 recommended jurisdictional revenue requirement for my use in
20 assigning the base revenue requirement to the classes. The net

1 revenue requirement is used to calculate class rates of return on rate
2 base and the percentage increase in revenues. These calculations
3 are set forth in Exhibit SJS-4.

4 Consistent with the Public Staff's practice in past general rate cases,
5 I have taken into consideration the following principles to spread the
6 impact of proposed revenue changes among customer classes:

- 7 1. Employing a $\pm 10\%$ "band of reasonableness" relative to the
8 overall jurisdictional rate of return, such that to the extent
9 possible, the class rates of return after the rate changes stay
10 within this band of reasonableness following revenue
11 assignment;
- 12 2. Limiting the revenue increase to no more than two percentage
13 points greater than the overall jurisdictional revenue increase
14 for the non-lighting classes; and
- 15 3. Minimizing subsidization of customer classes by other
16 customer classes.

17 The equity and fairness of each customer class's contribution to the
18 revenue requirement are important considerations when assigning
19 revenue requirement to the classes.

20 **Q. WERE YOU ABLE TO ADHERE TO THESE RATE MAKING**
21 **PRINCIPLES IN ASSIGNING THE REVENUE INCREASE?**

1 A No. The Public Staff was unable to comply with each of the revenue
2 apportionment principles discussed above. In order to maintain the
3 band of reasonableness on RORs, the percentage increase
4 assigned to the residential and general service customer classes and
5 rate schedules within those classes would be more than two
6 percentage points above the jurisdictional percentage increase.
7 Given the potential conflict between these two principles in the
8 assignment of the increase, and in order to avoid unreasonable rate
9 shock to any individual customer class, I believe it is more
10 appropriate to keep the increase assigned to any class below two
11 percentage points above the overall jurisdictional revenue increase,
12 while working to move all classes closer to parity with the
13 jurisdictional ROR. This places the focus on the dollar increase
14 customers will directly experience. However, my recommendation
15 fails to move all customer classes toward parity. Again, I believe it
16 is appropriate to place precedence on the principle of limiting the
17 percentage increase. Exhibit SJS-4 reflects my recommended
18 revenue increase for each rate class. This exhibit shows class
19 revenue changes and class rates of return using the Public Staff's
20 adjusted cost-of-service study.

21 **RATE SCHEDULES AND SERVICE REGULATIONS**

1 **Q. DO YOU HAVE ANY RECOMMENDED LANGUAGE CHANGES**
2 **FOR THE PROPOSED RATE SCHEDULES AND SERVICE**
3 **REGULATIONS FILED BY NRLP?**

4 A. Yes. The Resale Service section of the Service Regulations should
5 include a provision that recognizes electric service resold by
6 landlords pursuant to G.S. 62-110(h). Similarly, the Availability
7 section of Rate Schedule R should state its availability to landlords
8 with a certificate of authority to resell electric service under
9 Commission Rule R22.

10 In addition, the commercial rate schedules should describe the
11 criteria NRLP will use to determine when a customer will transition to
12 Rate Schedule GLH. I recommend basing the criteria on a twelve-
13 month period where the customer has a demand of 30 kW or more
14 for two months and a monthly load factor greater than 65% for six
15 months.

16 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

17 A. Yes, it does.

SCOTT J. SAILLOR

I graduated from North Carolina State University with a Bachelor of Science degree in Electrical Engineering. I was employed by the Communications Division of the Public Staff beginning in 1998, where I worked on issues associated with the quality of service offered by telephone and payphone service providers, arbitration proceedings, compliance reporting and certification filings. Since joining the Electric Division in 2011, my responsibilities have focused on the areas of demand side management and energy efficiency measures, renewable portfolio standards compliance, applications for resale of electric service and non-utility generating facilities, and revenue and customer growth analysis.

Public Staff's Customer Growth and Usage Adjustment

Rate Schedule (a)	Per Books kWh Sales (b)	Change in # of Bills (c)	Dec 2016 EOP Level of Customers (d)	Customer Growth Adjustment (kWh) (e)	Usage Adjustment (kWh) (f)	Adjusted Per Books kWh Sales (g)
Residential	53,270,063	563	6,235	741,803	(1,025,803)	52,986,063
G Commercial	24,066,563	34	1,497	52,968	98,008	24,217,539
GL Commercial	75,351,276	68	274	1,591,341	(38,442)	76,904,175
ASU Campus	48,094,075	9	108	338,542	(837,126)	47,595,491
Total	200,781,977			2,724,654	(1,803,363)	201,703,268

Calculation of Customer Growth Revenue Adjustment

Rate Schedule (a)	Retail KWH Adjustment (b)	Cents Per KWH ¹ (c)	Revenue Adjustment (d) = ((b) x (c) / 100)
Residential	741,803	9.58	\$71,065
Commercial General	52,968	8.88	4,704
Commercial Demand	1,591,341	7.22	114,895
ASU Campus	338,542	7.98	27,016
Total Retail	591,670		\$217,679

¹ Average customer class rates are based on annualized revenues divided by per book sales.

Calculation of Usage Revenue Adjustment

Rate Schedule (a)	Retail KWH Adjustment (b)	Cents Per KWH ¹ (c)	Revenue Adjustment (d) = ((b) x (c) / 100)
Residential	(1,025,803)	8.70	\$(89,245)
Commercial General	98,008	8.23	8,066
Commercial Demand	(38,442)	7.17	(2,756)
ASU Campus	(837,126)	7.95	(66,552)
Total Retail	591,670		\$(150,487)

¹ Average customer class rates are based on annualized revenues divided by per book sales. Annualized revenues for the usage adjustment do not include customer charges.

Public Staff's Recommended Revenue Increase

		NRLP Retail	RES	G	GL	GLH	ASU	SL
1	Total Operating Revenue	\$ 17,116,975	\$ 5,161,946	\$ 2,161,095	\$ 4,250,458	\$ 1,252,692	\$ 3,880,020	\$ 347,576
2	Proposed Revenue Increase	\$ 1,739,251	\$ 627,800	\$ 262,791	\$ 516,872	\$ 152,354	\$ 170,375	\$ 9,059
3	Net Income Before Increase	\$ (3,719)	\$ (292,422)	\$ 28,111	\$ (170,893)	\$ (16,509)	\$ 414,784	\$ 33,209
4	Change in Net Income	L2 * Retention Factor \$ 1,734,853	\$ 626,212	\$ 262,126	\$ 515,565	\$ 151,968	\$ 169,944	\$ 9,036
5	Total Net Income	L3 + L4 \$ 1,731,134	\$ 333,791	\$ 290,237	\$ 344,672	\$ 135,460	\$ 584,728	\$ 42,246
6	Rate Base	\$ 26,839,288	\$ 9,721,668	\$ 3,307,477	\$ 6,884,040	\$ 1,578,219	\$ 4,924,884	\$ 423,000
7	Rate of Return (before change)	L3 / L6 -0.01%	-3.01%	0.85%	-2.48%	-1.05%	8.42%	7.85%
8	Rate of Return Index (before change)	L7 (class) / L7 (NC Retail) 1.00	217.08	-61.34	179.15	75.49	-607.81	-566.58
9	Rate of Return (after change)	L5 / L6 6.45%	3.43%	8.78%	5.01%	8.58%	11.87%	9.99%
10	Rate of Return Index (after change)	L9 (class) / L9 (NC Retail) 1.00	0.53	1.36	0.78	1.33	1.84	1.55
11	Percent Change in Revenue	L2 / L1 10.16%	12.16%	12.16%	12.16%	12.16%	4.39%	2.61%