## BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-35, SUB 51

In the Matter of
Application of Western Carolina )
University for an Adjustment of Rates )
and Charges for Electric Service in )
North Carolina

TESTIMONY OF SCOTT J. SAILLOR PUBLIC STAFF – NORTH CAROLINA UTILITIES COMMISSION

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## **AUGUST 20, 2020**

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 Energy Division <sup>1</sup> of the Public Staff - North
6		Carolina 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 revenue adjustments for weather normalization
12		and customer growth, and assignment of revenues by customer
13		class.

<sup>&</sup>lt;sup>1</sup> On August 1, 2020, the Public Staff merged the Electric Division and the Natural Gas Division to form the Public Staff Energy Division.

#### 1 Q. PLEASE DESCRIBE THE WEATHER NORMALIZATION

- 2 **REVENUE ADJUSTMENT.**
- 3 A. Monthly kilowatt-hour (kWh) adjustments are determined to weather
- 4 normalize test period sales for the Residential and Commercial rate
- 5 classes. The revenue adjustment is calculated by multiplying the rate
- 6 class kWh adjustment by the average customer class rates based on
- 7 annualized revenues divided by per book sales.

#### 8 Q. WHAT CHANGES DO YOU RECOMMEND FOR THIS

#### 9 **ADJUSTMENT?**

- 10 A. The revenues used to calculate average rates include revenues
- generated from per-bill basic customer charges. However, because
- the weather effect does not change the number of bills rendered
- during the test period, the weather normalization adjustment would
- not increase or decrease revenues from basic customer charges. To
- account for this, I removed the basic customer charge revenues from
- the Company's test-period annualized revenues and calculated a
- 17 new average rate for each customer class. I then multiplied the new
- average rate by the weather normalization kWh adjustments
- recommended by Public Staff witness Lozier.
- This change, as shown in Saillor Exhibit 1, was provided to Public
- 21 Staff witness Johnson for incorporation into her schedules.

#### 1 Q. PLEASE EXPLAIN THE CUSTOMER GROWTH ADJUSTMENT.

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

# 8 Q. DID THE COMPANY ADJUST REVENUES FOR CUSTOMER 9 GROWTH?

10 A. No. The Company based total revenues on the actual number of bills11 generated during the test year.

#### 12 Q. HOW DID YOU ADJUST FOR CUSTOMER GROWTH?

13 A. I used regression analysis to derive equations that best fit historic 14 billing data ending June 30, 2019. In so doing, my analysis fit 12-, 15 24-, 36- and 48-month data to linear, exponential, power, logarithmic, 16 quadratic, cubic and quartic equations. The equation with the highest 17 adjusted r-square<sup>2</sup> value was used to calculate the representative 18 end-of-period (EOP) level of customers for the Residential and 19 Commercial rate classes. The change in the number of customers 20 was determined by taking the difference between the calculated EOP

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<sup>&</sup>lt;sup>2</sup> R-square measures the goodness of fit of the regression equations to the billing data.

1		level of customers and the actual bills for each month of the test
2		period. The monthly average usage per customer for each month of
3		the test period was multiplied by the corresponding change in
4		number of customers for each month of the test period, and the
5		results for each month were then summed to produce the total kWh
6		customer growth adjustment for each customer class.
7		This is consistent with the methodology used for calculating
8		customer growth approved by the Commission in the previous
9		general rate case for Duke Energy Carolinas, LLC, in Docket No.
10		E-7, Sub 1146.
11		The customer growth adjustment increases sales by 384,629 kWh,
12		as shown in Saillor Exhibit 2.
13		The customer growth adjustment increases the Company's
14		operating revenues under present rates by \$34,570. The adjustment
15		for customer growth, shown in Saillor Exhibit 3, was provided to
16		Public Staff witness Johnson for incorporation into her schedules.
17	Q.	HOW DID YOU ASSIGN THE REVENUE REQUIREMENT
18	٦.	RECOMMENDED BY THE PUBLIC STAFF TO THE COMPANY'S
19		CUSTOMER CLASSES?
20	A.	Public Staff witness Johnson provided the Public Staff's
21	, <b>.</b> .	recommended jurisdictional revenue requirement for my use in
22		assigning the base revenue requirement to the classes. The net
<b>44</b>		assigning the base revenue requirement to the classes. The net

1	rever	revenue requirement is used to calculate class rates of return on rate					
2	base	base and the percentage increase in revenues. These calculations					
3	are s	et forth in Saillor Exhibit 4.					
4	Cons	sistent with the Public Staff's practice in past general rate cases,					
5	I hav	e taken into consideration the following principles to spread the					
6	impa	ct of proposed revenue changes among customer classes:					
7	1.	Limit any revenue increase assigned to any customer class					
8		such that each class is assigned an increase that is no more					
9		than two percentage points greater than the overall					
10		jurisdictional revenue percentage increase for the non-lighting					
11		classes;					
12	2.	Maintain a ±10% "band of reasonableness" for rates of return,					
13		relative to the overall jurisdictional rate of return such that to					
14		the extent possible, the class rate of return stays within this					
15		band of reasonableness following assignment of the proposed					
16		revenue changes;					
17	3.	Move each customer class toward parity with the overall					
18		jurisdictional rate of return; and,					
19	4.	Minimize subsidization of customer classes by other customer					
20		classes.					

ı	The equity and fairness of each customer class's contribution to the
2	revenue requirement are important considerations when assigning
3	revenue requirement to the classes.
4	Under the assignment of revenues recommended by the Public Staff,
5	the class rates of return will be within the ±10% band of
6	reasonableness for the non-lighting classes. In addition, the
7	residential and commercial classes would receive an increase that is
8	less than two percentage points from the overall revenue increase.
9	However, due to the low rate of return under current rates for lighting,
10	the revenue increase assigned to the lighting class would exceed the
11	band of reasonableness and be more than two percentage points
12	from the overall revenue increase. The proposed assignment of
13	revenues would bring the lighting class closer to parity with the
14	residential and commercial classes.
15	It is inappropriate to ignore the significant subsidization of the lighting
16	class by residential and commercial customers. While many of the
17	residential and commercial customers are also lighting customers,
18	the Public Staff believes lighting service should bear a reasonable
19	share of the cost burden associated with electric service. Some of
20	the current under recovery is a function of the cost of service study
21	and the energy usage and load factor assigned to lighting by WCU.
22	The Public Staff's modifications to the cost of service study, which
23	are addressed by Public Staff witness Evan Lawrence in this

testimony in this case, adjusts the expenses, energy usage and load factor for lighting and the resulting difference in the rate of return under present and proposed rates, addresses some of the under recovery. The Public Staff's proposed revenue assignment further mitigates the under recovery, but cannot avoid exceeding the revenue assignment principle of limiting the increase to something less than two percentage points above the overall increase. The Public Staff recommends a 60% rate increase for lighting, as shown on line 11 of Saillor Exhibit 4, which brings the lighting class to within 11.9 percentage points of the overall rate of return. If lighting were limited to an increase of two percentage points above the overall increase, the rate of return for lighting would remain over 70 percentage points below the overall rate of return.

#### 14 Q. DOES THIS CONCLUDE YOUR TESTIMONY?

15 A. Yes, it does.

#### **QUALIFICATIONS AND EXPERIENCE**

#### 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 Energy 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.

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#### **Calculation of Weather Normalization Revenues**

		Cents	
	kWh	Per	Revenue
Rate Class	Adjustment	$kWh^1$	Adjustment
(a)	(b)	(c)	$(d) = (b) \times (c) \div 100$
Residential	231,534	10.02	\$ 23,202
Commercial	(107,812)	9.20	\$ (9,914)
Total	123,722		\$ 13,288

Note 1: Average customer class rates are based on annualized revenues, excluding revenues from basic customer charges, divided by per book sales.

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# **Public Staff's Customer Growth Adjustment**

		June 2019	Customer Growth
Rate	Change in	<b>EOP</b> Level of	Adjustment
Schedule	# of Bills	Customers	(kWh)
Residential	(125)	3,159	(111,126)
Commercial	121	238	493,953
Total			382,827

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#### **Calculation of Customer Growth Revenues**

		Retail kWh	Cents Per	Revenue
Rate Class		Adjustment	$kWh^1$	Adjustment
(a)		(b)	(c)	$(d) = (b) \times (c) \div 100$
Residential		(111,126)	11.12	\$ (12,359)
	Commercial	493,953	9.44	\$ 46,626
	Total	382,827		\$ 34,267

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

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## **Public Staff's Recommended Revenue Increase**

			WCU Retail	Residential	Commercial	Lighting
1	Total Operating Revenue		\$4,569,742	\$3,476,064	\$ 1,074,064	\$ 38,031
2	Proposed Revenue Increase		\$ 612,749	\$ 469,836	\$ 120,095	\$ 22,818
3	Net Income Before Increase		\$ (247,720)	\$ (195,126)	\$ (33,769)	\$(18,826)
4	Change in Net Income	L2 * Retention Factor	\$ 471,970	\$ 361,891	\$ 92,503	\$ 17,576
5	Total Net Income	L3 + L4	\$ 224,250	\$ 166,766	\$ 58,734	\$ (1,250)
6	Rate Base		\$3,548,251	\$2,638,692	\$ 887,194	\$ 22,365
7	Rate of Return (before change)	L3 / L6	-6.98%	-7.39%	-3.81%	-84.18%
8	Rate of Return Index (before change)	L7 (Class) / L7 (Retail)	1.00	1.06	0.55	12.06
9	Rate of Return (after change)	L5 / L6	6.32%	6.32%	6.62%	-5.59%
10	Rate of Return Index (after change)	L9 (Class) / L9 (Retail)	1.00	1.00	1.05	-0.88
11	Percent Change in Revenue	L2 / L1	13.41%	13.52%	11.18%	60.00%