

BEFORE THE
NORTH CAROLINA UTILITIES COMMISSION
PUBLIC SERVICE COMPANY OF NORTH CAROLINA, INC.

DOCKET NO. G-5, SUB 632
DOCKET NO. G-5, SUB 634

REBUTTAL TESTIMONY

OF

JOHN D. TAYLOR

OCTOBER 7, 2021

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND CURRENT POSITION.

A. My name is John D. Taylor, and my business address is 10 Hospital Center Commons, Suite 400, Hilton Head Island, South Carolina 29926. I am employed by Atrium Economics, LLC (“Atrium”) as a Managing Partner. I am appearing on behalf of Public Service Company of North Carolina, Inc., d/b/a Dominion Energy North Carolina (“PSNC” or the “Company”).

Q. HAVE YOU PREVIOUSLY TESTIFIED IN THIS PROCEEDING?

A. Yes, I submitted direct testimony in this proceeding on behalf of PSNC on April 1, 2021, and supplemental direct testimony on behalf of PSNC on August 10, 2021.

Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS PROCEEDING?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of other parties in this proceeding relating to the fully-allocated Cost of Service Study (“COSS”) that allocates PSNC’s gas distribution costs to its rate classes, class revenue increase apportionment, and proposed rate design. Specifically, I will address the following witness testimony and topics:

- Testimony sponsored by Public Staff witness, Jack L. Floyd, relating to the issue of appropriate levels of revenue increases for each rate class, the use

1 of COSS results in setting rates, and suggested improvements in PSNC's
2 COSS methodologies.

3 • Testimony sponsored by Evergreen Packaging, LLC ("Evergreen") witness,
4 Brian C. Collins, regarding the Company's proposed COSS, revenue
5 increases for each rate class, and rate design for Rate 175 which serves the
6 Company's Firm Large Quantity General Service Transportation
7 customers.

8 • Testimony sponsored by Carolina Utility Customers Association
9 ("CUCA") witness, Kevin W. O'Donnell, regarding the Company's
10 proposed COSS and revenue increases for each rate class.

11 Q. WHAT ARE YOUR RECOMMENDATIONS RELATING TO THESE
12 ISSUES?

13 A. The summary of my conclusions and recommendations is listed below:

14 • The Commission should adopt the Company's proposed COSS. This study
15 is in alignment with past methods used by PSNC and approved by the
16 Commission.

17 • The Commission should reject the Public Staff's recommendation to
18 separately include contract customers in the Company's COSS model as
19 rates of return for these customers are most appropriately viewed in the
20 context of the analyses and documentation provided in approval of the terms
21 and conditions of these contracts.

22 • The Commission should reject the Public Staff's recommendation to require
23 the Company to address the Public Staff's list of conflicting "revenue

1 assignment principles” and address an undefined “band of reasonableness.”
2 These are vague requirements and are duplicative of the requirement for the
3 Company to put on an affirmative case in support of its rate design
4 proposals.

- 5 • The Commission should look to move classes closer to parity and reduce
6 subsidies across classes as proposed by Public Staff witness Floyd.
- 7 • Issues relating to gradualism and levels of “rate shock” should be reviewed
8 on a relative basis by considering a multiplier of the overall system increase
9 rather than the Public Staff’s preference of two percentage points above the
10 system increase.
- 11 • The Commission should utilize the Company’s proposed revenue increases
12 by class as detailed in my supplemental direct testimony and provided in
13 Table 2 within this rebuttal testimony.
- 14 • Regarding rate design for Rate 175, I support Evergreen’s approach of
15 applying the same percentage increase to each block rate as this method
16 results in more revenue recovered in the first block rate than the Company’s
17 original proposal. This is not, however, an endorsement of Evergreen’s
18 proposed revenue increase for Rate 175.

1 **II. PSNC’S COST OF SERVICE METHODS**

2 Q. WHAT POSITION DID THE PUBLIC STAFF TAKE REGARDING THE
3 METHODS UTILIZED IN THE COMPANY’S COST OF SERVICE
4 STUDY?

5 A. Public Staff witness, Jack L. Floyd, states that the Public Staff does “not oppose
6 the use of the filed COSS in this proceeding.”¹ He also states that due to
7 constraints on time, he was unable to thoroughly review the Company’s COSS.
8 He intends to conduct a deeper investigation into the COSS and work with the
9 Company to achieve a fuller understanding of the COSS prior to the Company’s
10 next general rate case filing. One area Mr. Floyd highlights as a concern is his
11 difficulty in discerning the differences in “cost causation associated with
12 contract customers, and large general service customers who are ‘sales’ and
13 ‘transportation’ customers.”²

14 Q. WHAT IS YOUR RESPONSE TO WITNESS FLOYD’S CONCERN
15 REGARDING CONTRACT CUSTOMERS?

16 A. Mr. Floyd would prefer a cost of service study that separately identifies the
17 contract revenues, expenses, and rate base to gain an understanding of the rate
18 of return for these contract customers; however, this is entirely unnecessary.
19 Mr. Floyd’s desire to understand the rate of return for contract customers can
20 be satisfied with documentation utilized by the Commission in the approval of
21 these contracts and does not require a separate “class” for contract customers

¹ Public Staff Direct Testimony of Jack Floyd dated September 23, 2021, at page 10.

² Public Staff Direct Testimony of Jack Floyd dated September 23, 2021, at page 12.

1 within the Company's COSS model. PSNC performs a project-specific
2 analysis of the incremental costs required to provide service to any new contract
3 customer and then analyzes the contributions needed from the customer to fully
4 compensate PSNC for the costs of serving that specific customer over the life
5 of the contract. This analysis and the applicable rates, charges, and terms and
6 conditions of each contract are individually reviewed and approved by the
7 Commission. In short, these Commission approved contract rates are set to
8 ensure that the incremental costs of service are fully covered by the revenues
9 and that any additional revenues result in a reduction to all ratepayers. The
10 Company's COSS treats these revenues in an appropriate manner by crediting
11 these contract revenues to all classes resulting in a reduction of the revenue
12 requirement for PSNC's other customer classes.

13 Q. PLEASE ADDRESS MR. FLOYD'S CONCERN THAT IT IS DIFFICULT
14 TO DISCERN THE IMPACTS IN COST CAUSATION ASSOCIATED
15 WITH LARGE GENERAL SERVICE CUSTOMERS WHO ARE "SALES"
16 AND "TRANSPORTATION" CUSTOMERS?

17 A. Mr. Floyd recommends that future COSS distinguish between sales and
18 transportation customers for each of the large general service customer classes.
19 A COSS for sales service and transportation service separately is not necessary
20 as the cost of service being allocated to the classes is associated with the
21 provision of distribution service, not the procurement of gas. The customers on
22 Rate 175 and Rate 180 are transportation customers who qualify for service on
23 Rate 145 and Rate 150, respectively. These transportation customers receive

1 the same quality of service from the Company as customers on their counterpart
2 rates but choose to procure gas supply from a third party. Thus, the
3 distinguishing characteristic is their procurement of gas, not the cost to serve or
4 the quality of service. Further, there is no ability to target different increases of
5 distribution rates for sales and transportation customers as these customers can
6 migrate between the two groups and any rate differential would influence
7 customer choice. As such, I take issue with Public Staff witness Floyd's
8 recommendation and recommend future PSNC COSS continue to model sales
9 and transportation customers together.

10 Q. WHAT POSITION DID EVERGREEN AND CUCA TAKE WITH REGARD
11 TO THE METHODS UTILIZED IN THE COSS?

12 A. Both Evergreen witness Collins and CUCA witness O'Donnell criticized
13 PSNC's COSS model for utilizing the Peak and Average allocation method for
14 distribution mains. The issue at hand, which from my review is not a newly
15 debated issue in front of this Commission, is the appropriate method for
16 allocating demand-related costs of distribution mains to each customer class.
17 Both Evergreen witness Collins and CUCA witness O'Donnell propose to
18 utilize peak demand to allocate these costs rather than the proposed Peak and
19 Average methodology. While different methodologies across the industry are
20 used to allocate demand costs, there are three basic methodologies that form the
21 foundation for the allocation process: Coincident Peak Demand Allocations,
22 Average and Excess Demand Allocations, and Non-Coincident Demand
23 Allocations.

1 Q. PLEASE DESCRIBE THOSE THREE METHODOLOGIES IN GREATER
2 DETAIL.

3 A. The concept of Coincident Peak Demand Allocation, also referred to as the
4 “design day” method, is premised on the notion that investment in capacity is
5 determined by the peak demand(s) of the utility. Under this methodology,
6 demand-related costs are allocated to each customer class in proportion to the
7 demand of that customer class coincident with the system peak. The Coincident
8 Peak Demand Allocation process might focus on a single system peak, such as
9 the highest daily demand occurring during the test period. Alternatively, it
10 might include the average of consecutive cold days that surround the system
11 peak, system peak days occurring over a period of several years, or it could be
12 the expected contribution to the system peak under weather conditions for
13 which the system was designed to serve, commonly referred to as a “design
14 day.”

15 The Average and Excess Demand Allocation methodology, also
16 referred to as the “used and unused capacity” method, allocates demand-related
17 costs to the classes of service on the basis of system and class load factor
18 characteristics. A simplified version of this methodology is the Peak and
19 Average methodology. This cost methodology often gives equivalent weight
20 to peak demands and average demands. As is the case with the Average and
21 Excess method, it has the effect of allocating a portion of the utility’s capacity
22 costs on a commodity-related basis.

1 The Non-Coincident Demand Allocation methodology recognizes that
2 certain facilities, in particular distribution facilities, are designed to serve local
3 peaks, which may or may not be coincident with the system peak loads. This
4 is often used for the allocation of demand-related costs associated with local
5 electric distribution facilities. Using this methodology, demand costs are
6 allocated based on maximum demand of each rate class, irrespective of the time
7 of the system peak.

8 Q. WHAT ANALYSIS DID YOU CONDUCT WHEN SELECTING THE
9 PROPOSED METHOD FOR ALLOCATING THE DEMAND-RELATED
10 COSTS OF DISTRIBUTION MAINS?

11 A. When selecting methods to be utilized in a class cost of service study for
12 purposes of a base rate filing, I often review the history of different
13 methodological approaches, the duration of the methods used in the past,
14 methods employed by other utilities in the jurisdiction, and the support of the
15 Commission for different methodological approaches. In preparing PSNC's
16 COSS, I reviewed the methods utilized by PSNC in its last base rate case
17 proceeding, the methods used by Piedmont Natural Gas Company in past
18 proceedings and in the current Piedmont proceeding, and past Commission
19 orders citing a preference for the use of the Peak and Average methodology. It
20 was apparent that the Peak and Average methodology has been tried and tested
21 by this Commission and has previously been found to be the most reasonable:

22 The Peak and Average allocation methodology used by PSNC and the
23 Public Staff recognizes that PSNC's facilities provide service on an
24 annual as well as a peak basis. The Commission concludes that it is

1 more appropriate to use the Peak and Average methodology to allocate
2 costs than it is to use the Peak Responsibility or Imputed Load Factor
3 methodologies proposed by CUCA.³

4 As such, the decision was made, in consultation with PSNC, to continue to
5 utilize the Peak and Average method for allocating the demand portion of
6 distribution mains.

7 Q. WHAT IS THE NATURE OF THE REPORT ISSUED BY YOUR FIRM,
8 ATRIUM ECONOMICS, FOR CENTRA GAS MANITOBA, INC. THAT
9 EVERGREEN WITNESS COLLINS REFERENCES?

10 A. Evergreen witness Collins references a recently issued report authored by
11 Atrium Economics, for which I am a managing partner, that recommended the
12 use of the design day method to allocate the demand related distribution main
13 costs. Historically, Centra Gas Manitoba, Inc. (“Centra Gas”) utilized the Peak
14 and Average methodology for the allocation of distribution mains and was
15 ordered by the Public Utilities Board of Manitoba (“PUB”) to retain an outside
16 expert to review their cost of service methodologies and provide an opinion on
17 the methods utilized. As Evergreen witness Collins correctly summarizes and
18 can be seen in the report, fully attached to his testimony, Atrium Economics’
19 recommendation to Centra Gas was to replace the use of the Peak and Average
20 allocation method with a Coincident Peak Demand Allocation method.

³ *Order Granting Partial Rate Increase*, Docket No. G-5, Sub 386 (Oct. 30, 1998).

1 Q. PLEASE SUMMARIZE THE CIRCUMSTANCES UNDER WHICH
2 ATRIUM ECONOMICS WAS RETAINED BY MANITOBA HYDRO TO
3 CONDUCT THE REVIEW THAT WITNESS COLLINS CITES AS
4 SUPPORT FOR THE DESIGN DAY PEAK ALLOCATION METHOD FOR
5 DISTRIBUTION MAINS.

6 A. PUB Order No. 152/⁴ required Centra Gas to retain an outside expert to review
7 their entire cost of service methodologies and provide an opinion on the
8 methods utilized. Several intervenor expert witnesses (including Evergreen
9 witness Collins, who supported Centra Gas's Special Contract customer) in that
10 general rate application proceeding filed evidence identifying aspects of Centra
11 Gas's cost of service study that, in the view of those witnesses, required review
12 and ultimately a different methodological approach.

13 One issue of particular focus was the allocation of transmission costs.
14 In Centra Gas's cost of service study, transmission costs relate to the costs of
15 constructing and operating Centra Gas's high pressure transmission system,
16 including the costs of steel pipelines and pressure regulating stations, as well as
17 unaccounted for gas. The Large General Service, High Volume Firm, Special
18 Contract⁵, and Main Line customer classes were all proposed to receive an
19 increase in their allocated portion of non-gas costs. For the Special Contract
20 customer class in particular, the share of non-gas costs had increased due to an
21 increase in the proportion of rate base that is transmission-related as opposed to

⁴ Final Order with Respect to Centra Gas Manitoba Inc.'s 2019/20 General Rate Application, October 11, 2019.

⁵ The Special Contract class was a client of Evergreen witness Collins.

1 distribution-related. As these customers do not use Centra's distribution
2 system, these customers are allocated proportionately more costs when there is
3 a greater increase in transmission-related costs than distribution-related costs.

4 Q. HOW SHOULD THIS REPORT BE USED IN DETERMINING THE
5 APPROPRIATE METHOD OF ALLOCATING MAINS FOR PSNC?

6 A. It should not be relied upon as there is a fundamental distinction between the
7 review conducted by Atrium Economics for Centra Gas and the current
8 proceeding for which I am sponsoring testimony. The PUB directed Centra Gas
9 to retain an outside consultant to review Centra Gas's cost of service
10 methodology, which provided a distinct opportunity to present and discuss the
11 pros and cons of different methodological approaches outside of a base rate case
12 proceeding in which the PUB, Centra Gas, and outside stakeholders could put
13 forth dedicated effort reviewing issues relating specifically to cost of service
14 methods. The current general rate proceeding involves a large set of required
15 analysis of issues, detailed information, significant review by all parties, and a
16 multitude of issues that are unique to PSNC. It is a difficult setting to evaluate
17 topics that often impact multiple utilities. Therefore, Commissions often utilize
18 generic proceedings to review broader methodological issues and regulatory
19 approaches that impact multiple utilities within their jurisdiction.

1 Q. WHAT ARE THE IMPLICATIONS ON PSNC'S COSS RESULTS FROM
2 REPLACING THE PEAK AND AVERAGE WITH THE COINCIDENT
3 PEAK DEMAND ALLOCATION METHODOLOGY?

4 A. As indicated in the direct testimony of Evergreen witness Collins, a COSS was
5 developed and provided to Evergreen that replaced the use of the Peak and
6 Average Allocation method with a Coincident Peak Demand Allocation method
7 for the demand component of distribution mains. Table 1 below compares
8 PSNC's proposed COSS with this requested alternative provided to Evergreen.

9 **Table 1 – Total Revenue Deficiency (Surplus) by Class – Allocation of Mains**

| Rate Class | Distribution Mains Allocated on Peak and Average | Distribution Mains Allocated on Design Day | Difference |
|--------------------------------------|--|--|----------------|
| Residential Service | \$ 26,545,420 | \$ 44,071,131 | \$ 17,525,711 |
| Small General Service | \$ 4,753,404 | \$ 7,335,816 | \$ 2,582,412 |
| Medium General Service | \$ (1,319,493) | \$ (1,393,247) | \$ (73,754) |
| Large Quantity General Service | \$ 15,596,017 | \$ 1,517,992 | \$(14,078,025) |
| Large Quantity Interruptible Service | \$ 7,570,129 | \$ 1,613,785 | \$ (5,956,344) |
| Total Company | \$ 53,145,478 | \$ 53,145,478 | \$ (0) |

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11 As can be seen from this table, the result of moving from a Peak and Average
12 methodology to a design day is to shift cost responsibility from the higher load
13 factor classes Large Quantity General Service and Large Quantity Interruptible
14 Service to the lower load factor classes Residential Service and Small General
15 Service. This is to be expected given the arithmetic of the two alternative
16 allocation methodologies (i.e., the peak and average allocation is weighted 50%
17 on annual throughput and 50% on design day, whereas the design day allocation
18 method does not incorporate annual throughput).

1 Q. WHAT CONCLUSIONS SHOULD BE MADE RELATING TO THE
2 ALLOCATION OF DISTRIBUTION MAINS?

3 A. The comparison of these two methods illustrates that movement from the Peak
4 and Average to the design day, to use the words of Evergreen witness Collins
5 “make[s] any corrective distribution of the requested increase even more
6 difficult to manage in this case.”⁶ As stated by CUCA witness O’Donnell, “I
7 used the SWPA [peak and average] ACOSS in the development of my
8 recommended rate design. The reason is that use of the Peak Day ACOSS
9 would not have altered my recommended rate design in any meaningful way.”⁷
10 In short, correcting the rate of return disparities across the classes under either
11 method may very well be limited by considerations of gradualism and rate
12 shock, which I will now discuss.

13 **III. REVENUE INCREASES FOR EACH RATE CLASS**

14 Q. WHAT IS THE PUBLIC STAFF’S POSITION RELATING TO THE
15 ASSIGNMENT OF THE REVENUE INCREASE TO EACH RATE CLASS?

16 A. It appears through reviewing Public Staff witness Floyd’s direct testimony in
17 this proceeding and the Public Staff’s responses to PSNC’s data request⁸

⁶ Evergreen Direct Testimony of Brian Collins dated September 23, 2021, at page 13.

⁷ CUCA Direct Testimony of Kevin O’Donnell dated September 23, 2021, at page 102. The testimony references the SWPA ACOSS; however, the Company is not proposing to use the Summer Winter Peak Analysis (SWPA) a term used in the context of electric production facility allocations. The proposed method is a peak and average where the peak is equal to the design day winter peak demand.

⁸ Response of the Public Staff to PSNC’s Second Data Request – Requests 2-1 through 2-4.

1 (provided as Taylor Rebuttal Exhibit 1) there are several principles considered
2 by the Public Staff Witness Floyd's testimony lists four goals:⁹

3 (1) Limit any revenue increase to no more than two percentage points greater
4 than the overall revenue increase.

5 (2) Maintain a $\pm 10\%$ "band of reasonableness" for rate of returns relative to
6 the overall jurisdictional rate of return.

7 (3) Move each customer class toward parity with the overall jurisdictional
8 rate of return.

9 (4) Minimize subsidization of customer classes by other customer classes.

10 Items three and four are in direct alignment, where a movement towards parity
11 will minimize any existing subsidies across classes. At the extreme, all classes
12 could move 100% to parity and no subsidies would remain; however, this is
13 often not optimal given gradualism and rate shock considerations. Item two
14 indicates that there is an assumed range of reasonableness for rate classes' rate
15 of return, set to $\pm 10\%$ relative to the overall jurisdictional rate of return. From
16 my experience and the position described in my direct testimony, these are all
17 sensible goals.¹⁰ With respect to item one, limiting any increase to two
18 percentage points greater than the overall revenue increase, I have some
19 misgivings.

⁹ These are summarized for brevity. Please see Public Staff Direct Testimony of Jack Floyd dated September 23, 2021, at pages 4-5 for the full text.

¹⁰ See the Direct Testimony of PSNC witness John Taylor dated April 1, 2021, at pages 19-21.

1 Q. WHAT CONCERNS DO YOU HAVE WITH THE PUBLIC STAFF'S GOAL
2 OF LIMITING ANY INCREASE TO TWO PERCENTAGE POINTS
3 GREATER THAN THE OVERALL REVENUE INCREASE?

4 A. This goal is arbitrary, has no theoretical support, is in direct conflict with the
5 other stated goals, and its application limits the ability to move classes
6 effectively towards parity over a reasonable time. As an illustrative example,
7 let's suppose a utility's revenue increase is 10% and one class would require a
8 30% increase to move its rate of return within the band of reasonableness. The
9 adherence to this goal would only allow an increase to this class of 12% (two
10 percentage points greater than the overall revenue increase), less than half of
11 what is required. Let's suppose this utility does not file another rate case for
12 five years and that case shows the total system increase is 6%, thus limiting this
13 class to an 8% increase. The subsidy would continue to exist for years, possibly
14 decades, and the question would need to be posed: How should concerns
15 relating to "rate shock"¹¹ be balanced with concerns over subsidies across
16 classes and their duration? The best approach to deal with this conflict is to
17 consider the relative increases across the classes rather than an absolute
18 difference of two percentage points between the overall system increase and
19 any one class. For example, if the system experiences an increase of 5%, is an
20 increase in excess of 7% "rate shock"? Or, if a system experiences an increase

¹¹ I use the Public Staff's term "rate shock" in the context of Mr. Floyd's testimony relating to the rate class increase above the system average increase. However, the term is often used in the context of reviewing the overall impact on customers' bills rather than simply a percentage increase on class margin. The concept of gradualism is invoked as well, where large rate increases for individual classes of customers are tempered in an attempt to avoid "rate shock."

1 of 20%, is an increase greater than 22% “rate shock”? The approach that should
2 be used to judge rate shock or the use of gradualism to avoid rate shock is the
3 relative difference between the system’s increase and the increase for any one
4 class of customers. It is a determination of which classes should bear the
5 increase in relation to other classes, a determination in which only a relative
6 attribute can be informative.

7 Q. WHAT RELATIVE ATTRIBUTE OF RATE INCREASES CAN BE
8 INFORMATIVE WHEN JUDGING THE APPROPRIATENESS OF
9 REVENUE INCREASES FOR EACH CLASS?

10 A. Examining class rate increases as a multiplier of the total system increase can
11 ensure the concept of gradualism is appropriately taken into account. The
12 relevant questions are how much should rates change in order to move classes
13 towards parity and what is the balance between any individual class’s increase
14 and the overall system increase. Using a multiplier of the overall system return
15 is a common method of limiting increases to any one class in relation to the
16 overall system increase. The Company’s proposal presented in my direct
17 testimony applies this metric by limiting any individual classes increase as two
18 times the overall system increase.

19 Q. WHAT IS THE PUBLIC STAFF’S RECOMMENDATION FOR REVENUE
20 INCREASE BY CLASS?

21 A. The Public Staff presents no revenue increase by class within Mr. Floyd’s direct
22 testimony. He indicated that the Public Staff intends to file supplemental

1 testimony on its recommended jurisdictional revenue requirement and
2 assignment of their proposed revenue change to each rate class.

3 Q. WHAT OTHER RECOMMENDATIONS ARE MADE BY THE PUBLIC
4 STAFF RELATING TO SETTING REVENUE INCREASE BY CLASS?

5 A. Public Staff witness Floyd states:

6 Therefore, the Public Staff recommends that the
7 Commission require the Company to address each of
8 these revenue assignment principles in its next general
9 rate case filing. The Commission should also require the
10 Company to explain why any class ROR under proposed
11 rates that falls outside of a band of reasonableness should
12 be allowed going forward.¹²

13 In short, these issues have been addressed in this proceeding; that is, my direct
14 testimony and rebuttal testimony demonstrate that there are various goals and
15 principles relating to setting revenue increases for each rate class; reviewing
16 increases on a relative attribute basis is most appropriate; and the Company's
17 proposed revenue increases by class presented in direct testimony and
18 supplemental testimony balance these various goals and principles in an
19 effective manner. Each general rate case filing presented to this Commission
20 requires PSNC to make an affirmative case of why its proposals are reasonable
21 and should be approved. Witness Floyd's proposal to require the Company to
22 address the Public Staff's list of conflicting "revenue assignment principles,"
23 notably requiring the Company to justify different approaches for electric and
24 natural gas utilities and requiring justification of rate classes outside an

¹² Public Staff Direct Testimony of Jack Floyd dated September 23, 2021, at pages 12.

1 undefined “band of reasonableness,” should be rejected. This proposal creates
2 a vague requirement that is duplicative of the Company’s obligation to put on
3 an affirmative case in support of its rate design proposals.

4 Q. WHAT IS CUCA’S PROPOSED REVENUE INCREASE BY CLASS AND
5 THE RATIONALE FOR ITS PROPOSAL?

6 A. CUCA witness O’Donnell proposes to limit any rate increase or decrease to no
7 more than 10% of current class revenues. The support for this approach is that
8 Mr. O’Donnell “attempted to balance the interest of all customer classes
9 without allowing any one particular class to sustain excessive rate hikes while
10 other classes enjoyed significant rate cuts.”¹³ Mr. O’Donnell also states, “that
11 Mr. Taylor paid no attention to rate shock that, if adopted by this Commission
12 will run manufacturers, their jobs, and their tax base out of North Carolina.”¹⁴

13 Q. DID YOU CONSIDER ISSUES OF RATE SHOCK AND GRADUALISM
14 WHEN SETTING REVENUE INCREASE FOR EACH RATE CLASS?

15 A. Yes. In addition to considering gradualism and rate shock, I also considered
16 goals of moving classes closer to parity and reducing subsidies across classes,
17 which are in alignment with the Public Staff’s goals described above and,
18 possibly Mr. O’Donnell’s statement that “CUCA and I also want to do what is
19 right.”¹⁵ My limitation on class revenue increases was two times the overall
20 system increase, and while some may disagree with the two times limitation,
21 this is an appropriate measure of the relative increase to each class which, as

¹³ CUCA Direct Testimony of Kevin O’Donnell dated September 23, 2021, at page 102.

¹⁴ CUCA Direct Testimony of Kevin O’Donnell dated September 23, 2021, at page 102.

¹⁵ CUCA Direct Testimony of Kevin O’Donnell dated September 23, 2021, at page 102.

1 detailed above, should be used to judge limits to revenue increases for any one
2 class.

3 Q. WHAT SUPPORT DID CUCA PROVIDE TO SUPPORT MR.
4 O'DONNELL'S STATEMENT THAT THE COMPANY'S PROPOSAL
5 WILL BE DETRIMENTAL TO MANUFACTURERS IN NORTH
6 CAROLINA?

7 A. CUCA provided no such support in Mr. O'Donnell's direct testimony. In data
8 request responses (provided as Taylor Rebuttal Exhibit 2), CUCA
9 acknowledged that witness O'Donnell had completed no financial analysis,
10 reviewed no tax-base analysis, and performed no bill impact analyses. The
11 responses stated that Mr. O'Donnell relied solely on his numerous years as an
12 energy analyst in North Carolina.¹⁶

13 Q. WHAT IS EVERGREEN'S PROPOSED REVENUE INCREASE BY CLASS
14 AND RATIONALE FOR ITS PROPOSAL?

15 A. Witness Collins states, "No class should receive an increase more than a
16 maximum 150% of the average increase as an upper limit."¹⁷ This is instructive
17 as witness Collins uses the same relative attribute of individual class increases
18 as a ratio of total system increase to set limits to increases by class, which is the
19 same relative attribute I used in direct testimony and advocate for in this rebuttal
20 testimony. The difference is that, while I have used a two times ratio, witness
21 Collins suggests a 1.5 times ratio. Ultimately witness Collins's proposal is as

¹⁶ CUCA Response to Company Requests 2-1 and 2-2

¹⁷ Evergreen Direct Testimony of Brian Collins dated September 23, 2021, at page 3.

1 follows, “Classes close to cost of service received an approximate average
2 increase; classes above cost of service receive approximately 50% of the
3 average increase.”¹⁸ The resulting increases by class are different from the
4 Company’s proposal due to Evergreen using the peak day methodology for
5 allocating mains compared to the Company’s proposed method using Peak and
6 Average.

7 Q. WHAT IS YOUR RESPONSE TO MR. COLLINS’S PROPOSAL?

8 A. Witness Collins’s recommendation is based on an allocation method of
9 distribution mains that has been explicitly rejected by this Commission in past
10 proceedings, as discussed above. As a result, Evergreen’s proposed rate
11 increase by class should not be relied upon in this proceeding.

12 Q. WHAT REVENUE INCREASE BY CLASS SHOULD THE COMMISSION
13 USE TO SET RATES IN THIS PROCEEDING?

14 A. The Commission should approve the Company’s proposal presented in my
15 supplemental testimony. Table 2 below provides each party’s proposal on
16 revenue increases by class as a percentage increase of distribution margin.

¹⁸ Evergreen Direct Testimony of Brian Collins dated September 23, 2021, at page 14.

1 **Table 2 – Proposed Percentage Increase in Distribution Margin by Party**¹⁹

| Rate Class | PSNC Supplemental | | CUCA | | Evergreen | |
|------------------------------|-------------------------------|--------------------------------------|-------------------------------|--------------------------------------|-------------------------------|--------------------------------------|
| | Percent Change in Dist Margin | Increase Relative to System Increase | Percent Change in Dist Margin | Increase Relative to System Increase | Percent Change in Dist Margin | Increase Relative to System Increase |
| Residential Service | 13.48% | 0.87 | 10.76% | 0.96 | 16.53% | 1.00 |
| Small General Service | 17.45% | 1.12 | 12.74% | 1.14 | 21.41% | 1.29 |
| Medium General Service | 9.24% | 0.60 | 6.50% | 0.58 | 11.34% | 0.68 |
| Large Quantity General | 30.21% | 1.95 | 13.88% | 1.24 | 9.27% | 0.56 |
| Large Quantity Interruptible | 27.18% | 1.75 | 12.11% | 1.08 | 16.67% | 1.00 |
| Total Company | 15.51% | | 11.20% | | 16.60% | |

2
3 The second column for each party provides the increase by class relative to the
4 system increase. For Evergreen and CUCA to limit the increases to Large
5 Quantity General Service and Large Quantity Interruptible Service their
6 proposals require a higher relative increase for the Residential Service and
7 Small General Service classes. Under Evergreen's proposal this equates to an
8 additional \$6.2 million increase to those classes resulting in a 15% increase
9 above the Company's proposal.²⁰

10 IV. RATE DESIGN

11 Q. WHAT ISSUES RELATING TO RATE COMPONENTS WERE RAISED BY
12 OTHER PARTIES IN THEIR DIRECT TESTIMONY?

13 A. As described in my direct testimony, PSNC is proposing no increases to the
14 basic facilities charge or other miscellaneous fees. The proposed revenue

¹⁹ PSNC Updated – See the Supplemental Testimony of PSNC witness Taylor at page 7. CUCA – Derived from the workpapers provided in response to PSNC Data Request 2-6. Evergreen – Evergreen Exhibit BCC-3 which is based on the overall increase presented in PSNC's direct testimony and not the supplemental testimony, which reduced the revenue increase from 16.60% to 15.51%.

²⁰ The Company's proposal as presented in Schedule 3 - Revenue Apportionment (See G-1 Item 3 page 12 of 236) was \$42,362,488 for these two classes, compared to Evergreen's Exhibit BCC-3 which contains a proposed increase of \$48,565,115.

1 increases will be fully recovered through the volumetric charges. No party
2 questioned or commented on this general principle, just on the allocation of the
3 overall increase to each of the rate classes discussed in the previous section of
4 this rebuttal testimony. The only party to discuss issues relating to rate
5 components was Evergreen.

6 Q. WHAT CONCERNS WERE RAISED BY EVERGREEN WITH REGARD
7 TO PSNC'S PROPOSED RATE COMPONENTS?

8 A. Mr. Collins solely focuses on the volumetric block rates for Rate 175 (Large
9 Quantity General Service-Transportation Customers) and proposes an across-
10 the-board increase to each block rate of 9.9%, which results in a total class
11 increase of 9.3%.²¹ This contrasts with the Company's proposal, which
12 maintains the volumetric rate delta across the block rates (i.e., currently the last
13 block is 9 cents below the first block rate and the proposed last block was
14 targeted for the same 9 cent differential).

15 Q. WHAT ARE THE RESULTING DIFFERENCES BETWEEN THESE TWO
16 APPROACHES?

17 A. Table 3 below provides a comparison of PSNC's approach and Evergreen's
18 approach. The PSNC's Rate 175 Approach column provides the proposal
19 presented in my direct testimony based on maintaining the volumetric rate delta
20 across the block rates. The Evergreen Rate 175 Approach column provides the
21 results of applying Evergreen's approach of an equal percentage increase to

²¹ Evergreen Direct Testimony of Brian Collins dated September 23, 2021, at page 15.

1 each block rate based on the overall increase for this class proposed by PSNC.
 2 This allows for an appropriate comparison of how these two approaches' results
 3 may differ. As can be seen from Table 3 they are materially the same, both
 4 resulting in 5% of the volumetric revenues and a rate of 7.8 cents for PSNC's
 5 approach and 7.1 cents for Evergreen's approach.

6 **Table 3 – Comparison of Approaches for Designing Rate 175 Volumetric Rate**

| Rate 175 Volumetric Block | Therms | PSNC's Rate 175 Approach | | | Evergreen Rate 175 Approach | | |
|---------------------------|-------------|--------------------------|--------------|-------------------------|-----------------------------|--------------|-------------------------|
| | | Rate | Revenue | % of Volumetric Revenue | Rate | Revenue | % of Volumetric Revenue |
| First 15,000 Therms | 43,775,946 | \$ 0.17900 | \$7,835,676 | 30% | \$ 0.20293 | \$8,883,576 | 34% |
| Next 15,000 Therms | 23,662,709 | \$ 0.15813 | \$3,741,666 | 14% | \$ 0.17278 | \$4,088,559 | 16% |
| Next 15,000 Therms | 16,090,255 | \$ 0.13948 | \$2,244,188 | 9% | \$ 0.14583 | \$2,346,510 | 9% |
| Next 15,000 Therms | 11,864,080 | \$ 0.11512 | \$1,365,734 | 5% | \$ 0.11065 | \$1,312,754 | 5% |
| Next 1,000,000 Therms | 97,680,420 | \$ 0.09485 | \$9,264,501 | 36% | \$ 0.08136 | \$7,947,565 | 31% |
| Over 1,060,000 Therms | 17,577,890 | \$ 0.07837 | \$1,377,492 | 5% | \$ 0.07113 | \$1,250,292 | 5% |
| Total Therm Sale Rev. | 210,651,300 | | \$25,829,256 | | | \$25,829,256 | |

7
 8 Q. WHAT IS YOUR RECOMMENDATION RELATING TO THE RATE
 9 COMPONENTS FOR RATE 175?

10 A. As previously discussed in this testimony, the overall rate increase for Rate 175
 11 that Mr. Collins is targeting with his rate design is based on the allocation of
 12 distribution mains on design day. As such, the starting point for rate design and
 13 revenue increases by class proposed by witness Collins is not supported by
 14 North Carolina precedent. I agree with witness Collins that, without a demand
 15 charge for these larger customer classes, it is important to recover fixed costs
 16 in the first block of rates with higher usage blocks having relatively lower
 17 charges. As demonstrated in Table 3 above, the results under these two
 18 approaches are materially the same; however, Evergreen's approach of
 19 applying the same percentage increase to each block rate does result in more

1 revenue recovered in the first block rate. As such, I support the application of
2 the same percentage increase to each block rate as proposed by witness Collins.
3 This is not, however, an endorsement of his targeted revenue increase by class.

4 Q. DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?

5 A. Yes, although I reserve the right to supplement further or amend my testimony
6 before or during the Commission's hearing in this proceeding.

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. G-5, SUB 632
DOCKET NO. G-5, SUB 634

| | | |
|---|---|------------------------|
| In the Matter of |) | |
| |) | |
| Application of Public Service Company of |) | |
| North Carolina, Inc., for an Adjustment of |) | |
| Natural Gas Rates and Charges in North |) | RESPONSE OF THE PUBLIC |
| Carolina |) | STAFF TO PSNC’S SECOND |
| |) | DATA REQUEST |
| In the Matter of |) | |
| |) | |
| Application for Approval to Modify Existing |) | |
| Conservation Programs and Implement New |) | |
| Conservation Programs |) | |

DATA REQUESTS

- 2-1. On page 10 of Public Staff witness Floyd’s direct testimony, witness Floyd indicates that the Public Staff’s definition of “rate shock” is limiting any increase in rates assigned to any class by no more than two percentage points greater than the overall increase for the Company. Please provide all documents that witness Floyd relied upon in adhering to this definition.

Response:

The Public Staff does not rely on any documents per se to support its definition of “rate shock.” The definition is a policy position that the Public Staff has taken for many years in electric utility rate cases. The Public Staff believes and advocates that increases greater than two percentage points above the overall increase granted by the Commission constitute “rate shock” for a particular customer class.

The Public Staff acknowledges the subjective nature of this recommendation. However, fairness of the revenue increase is also a consideration. The Public Staff has long articulated other revenue apportionment principles that also play into the decision making process that should guide the Commission’s consideration of any revenue increase. Those additional principles include (1) striving to maintain a band of reasonableness in the rates of return on rate base (ROR) any one customer class would receive as compared to the overall system ROR under proposed revenues; (2) moving all customer classes closer to parity with the overall ROR; and (3) mitigating any subsidy/excess issues that may exist between customer classes.

“Principles of Public Utility Rates” by James C. Bonbright, first published by the Columbia University Press in 1961 (Second Edition dated March 1988), provides a good reference to the objectives in rate design and revenue apportionment informing the Public Staff’s policy position. See excerpt from the British Columbia Utilities Commission below.

<https://www.bcuc.com/>

https://www.bcuc.com/Documents/Proceedings/2010/DOC_25352_B-22_FBC-extract.pdf



Excerpt pages from
2nd Edition Bonbrig

Prepared by Jack Floyd

- 2-2. On page 10 of Public Staff witness Floyd’s direct testimony, witness Floyd indicates that the Public Staff’s definition of “rate shock” is limiting any increase in rates assigned to any class by no more than two percentage points greater than the overall increase for the Company. Please provide any and all Commission orders utilizing this definition of rate shock in setting revenue targets by class and provide citations to such orders where the Commission has relied upon this definition in setting revenue levels by class.

Response:

The Public Staff provides the following recent electric utility rate case orders that we believe comply to the extent possible, with the principles of revenue apportionment discussed in the previous response.

Docket No. E-7 Sub 1214, *ORDER ACCEPTING STIPULATIONS, GRANTING PARTIAL RATE INCREASE, AND REQUIRING CUSTOMER NOTICE*, dated March 31, 2021. <https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=b7bfd96b-6df7-4013-9054-d1ff7242588a>

Docket No. E-7 Sub 1214, *ORDER ACCEPTING COMPLIANCE FILING AND CLARIFYING RATE ORDER, AND ERRATA TO PARTIAL PRIOR DISSENTING OPINION*, dated April 30, 2021. <https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=f64a885b-50ca-4446-9766-bf8eec08b2f5>

Docket No. E-2 Sub 1219, *ORDER ACCEPTING STIPULATIONS, GRANTING PARTIAL RATE INCREASE, AND REQUIRING CUSTOMER NOTICE*, dated

April 16, 2021. <https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=31a43e38-3985-400a-89c5-5afbf7828cb6>

Docket No. E-2, Sub 1219, *ORDER ACCEPTING COMPLIANCE FILING AND CLARIFYING RATE ORDER*, dated April 30, 2021.

<https://starw1.ncuc.net/NCUC/ViewFile.aspx?Id=86e9224c-4f78-4bad-9304-e6e5fd5a21c3>

Prepared by Jack Floyd

- 2-3. Please provide the Public Staff's underlying rationale for using 2 percent as the definition of rate shock as compared to any other percentage.

Response:

Please see the response to question 1 above.

- 2-4. Please provide Public Staff witness Floyd's opinion on whether if a rate class's assigned revenue target increases by 13% and the total system increase is 10%, that rate class would be burdened with a "rate shock." If Public Staff witness Floyd opines that such would be rate shock, please provide witness Floyd's rationale as to what determines that the additional one percentage increase creates a situation in which "rate shock" occurs.

Response:

Please see the response to question 1 above. In addition, the Commission must consider the overall fairness of rates charged for service among the customer classes and the relationship of each class to one another. If RORs are significantly outside the band of reasonableness mentioned in question 1, then the Staff could consider marginally higher increases or decreases to the customer class that is outside the band of reasonableness in order to address significant differences in RORs. Other considerations to keep in mind are: (1) the frequency of rate cases that are expected; (2) economic impacts, particularly impacts to the affected customer class that would result from class-specific increases exceeding the two percentage point principle; and (3) impacts to vulnerable customers who would experience the higher increases.

Prepared by Jack Floyd

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. G-5, SUB 632
DOCKET NO. G-5, SUB 634

| | | |
|--|---|---------------------|
| In the Matter of |) | |
| Application of Public Service Company |) | |
| of North Carolina, Inc., for an Adjustment |) | |
| of Natural Gas Rates and Charges in |) | |
| North Carolina |) | CUCA’S RESPONSES TO |
| |) | PSNC’S SECOND DATA |
| |) | REQUESTS |
| In the Matter of |) | |
| Application for Approval to Modify |) | |
| Existing Conservation Programs and |) | |
| Implement New Conservation Programs |) | |

Carolina Utility Customers Association (“CUCA”), by and through its legal counsel, respond to the Second Data Requests of Public Service Company of North Carolina, Inc. d/b/a Dominion Energy North Carolina (“PSNC” or the “Company”) in this proceeding.

DATA REQUESTS

2-1. Relating to CUCA witness O’Donnell’s direct testimony at page 102 line 6-8 the statement is made that the PSNC’s rate design if adopted, “...will run manufacturers, their jobs, and the tax base out of North Carolina.” What analysis was conducted in determining that the adoption of this rate design proposal will result in the outcome than “manufactures, their jobs, and the tax base,” “run” “out of North Carolina”?

Response: Mr. O’Donnell did not perform a financial or tax-base analysis. Instead, Mr. O’Donnell relied on his numerous years as an energy analyst in North Carolina to know that, from a common-sense perspective, manufacturers that operate in competitive markets cannot operate in energy markets with unending rate increases from its monopoly gas supplier.

2-2. Relating to CUCA witness O’Donnell’s direct testimony at page 102 line 6-8 the statement is made that the PSNC’s rate design if adopted, “...will run manufacturers, their jobs, and the tax base out of North Carolina.” Did CUCA witness O’Donnell develop any bill impact analysis to make this determination?

Response: Mr. O'Donnell did not perform a bill-impact analysis. Instead, Mr. O'Donnell relied on his numerous years as an energy analyst in North Carolina to know that, from a common-sense perspective, manufacturers that operate in competitive markets cannot operate in energy markets with unending rate increases from its monopoly gas supplier.

- 2-3. Relating to CUCA witness O'Donnell's direct testimony at page 102 line 6-8 the statement is made that the PSNC's rate design if adopted, "...will run manufacturers, their jobs, and the tax base out of North Carolina." Please provide all analysis developed or source documents that CUCA witness O'Donnell relied upon to make this determination.

Response: Mr. O'Donnell did not rely on analysis of any source documents. Instead, Mr. O'Donnell relied on his numerous years as an energy analyst in North Carolina to know that, from a common-sense perspective, manufacturers that operate in competitive markets cannot operate in energy markets with unending rate increases from its monopoly gas supplier.

- 2-4. CUCA witness O'Donnell's direct testimony at page 102 line 10-16 states that the SWPA ACOSS method was utilized in the development of the recommended rate design. Did CUCA witness O'Donnell utilize a Summer Winter Peak Analysis (SWPA) in conducting an ACOSS model?

Response: Mr. O'Donnell used the PSNC SWPA ACOSS model to develop his rate design.

- 2-5. CUCA witness O'Donnell's direct testimony at page 102 line 10-16 states that the SWPA ACOSS method was utilized in the development of the recommended rate design. If Mr. O'Donnell did not utilize a Summer Winter Peak Analysis, did Mr. O'Donnell utilize PSNC's filed ACOSS model that relied on a peak and average allocation of distribution mains?

Response: Please see response to Request 2-4.

- 2-6. CUCA witness O'Donnell's direct testimony at page 102-lines 10-16 states that SWPA ACOSS method was utilized in the development of the recommended rate design. Please provide the model utilized by Mr. O'Donnell in Excel format with formula intact if the model utilized by Mr. O'Donnell.

Response: Please see attachment.

- 2-7. CUCA witness O'Donnell's direct testimony at page 102-lines 10-16 states that SWPA ACOSS method was utilized in the development of the recommended rate design. Please provide the development of the allocation method utilized for the allocation of the distribution mains.

Response: Please see attachment.

Dated: September 30, 2021.



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*Attorneys for Carolina Utility Customers
Association*

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Oct 07 2021

CERTIFICATE OF SERVICE

The undersigned, of the law firm Brooks, Pierce, McLendon, Humphrey & Leonard, L.L.P., hereby certifies that he has served a copy of the foregoing **CUCA Responses to PSNC'S Second Data Requests** via electronic mail on counsel for PSNC.

This the 30th day of September, 2021.



Craig D. Schauer

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Oct 07 2021