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August 11, 2021

VIA Electronic Filing

Ms. Shonta Dunston, Chief Clerk North Carolina Utilities Commission 4325 Mail Service Center Raleigh, North Carolina 27699-4300

> Re: Docket No. G-9, Sub 722 and Sub 781 CIGFUR IV Direct Testimony and Exhibits of Nicholas Phillips, Jr.

Dear Ms. Dunston:

On May 17, 2021, the Commission issued its Order Scheduling Investigation and Hearings, Establishing Intervention and Testimony Due Dates and Discovery Guidelines, and Requiring Public Notice, setting the date for the filing of direct testimony and exhibits of intervenors and the Public Staff in these dockets to be on or before August 18, 2021.

On August 4, 2021, the Commission issued its Order Granting Extension of Time to File Direct and Rebuttal Testimony, extending the time for intervenor and Public Staff filing of direct testimony and exhibits to be filed in these dockets on or before August 11, 2021.

Pursuant to these Orders, we hereby submit the direct testimony and exhibits of Nicholas Phillips, Jr. on behalf of CIGFUR IV. Please note that while the source data for Phillips Exhibit NP-2 was confidential, this exhibit is <u>not</u> confidential.

Fourteen paper copies of this filing will be delivered to the Chief Clerk's Office by close of business on August 12, 2021, as required by ordering paragraph 13 of the Commission's May 17, 2021, Order.

We are electronically forwarding copies to all parties of record.

Sincerely,

<u>Electronically submitted</u> /s/ Christina Cress, Counsel of Record CIGFUR IV

CDC:kac

Enclosures

cc: Parties of Record

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BEFORE THE

NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application of Piedmont Natural Gas Company, Inc., for an Adjustment of Rates, Charges, and Tariffs Applicable to Service in North Carolina Docket No. G-9, Sub 781

Direct Testimony and Exhibits of

Nicholas Phillips, Jr.

On behalf of

CIGFUR IV

August 4, 2021



Project 11147

Aug 11 2021

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Application of Piedmont Natural Gas Company, Inc., for an Adjustment of Rates, Charges, and Tariffs Applicable to Service in North Carolina Docket No. G-9, Sub 781

Direct Testimony of Nicholas Phillips, Jr.

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- 2 A Nicholas Phillips, Jr. My business address is 16690 Swingley Ridge Road, Suite 140,
- 3 Chesterfield, MO 63017.

4 Q WHAT IS YOUR OCCUPATION?

A I am a consultant in the field of public utility regulation of Brubaker & Associates, Inc.,
energy, economic and regulatory consultants. Our firm and its predecessor firms have
been in this field since 1937 and have participated in more than 1,000 proceedings in
40 states and in various provinces in Canada. We have experience with more than
350 utilities, including many electric utilities, gas pipelines, and local distribution
companies. I have testified in many electric and gas rate proceedings on virtually all
aspects of ratemaking. More details are provided in Appendix A of this testimony.

12 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am testifying on behalf of a group of intervenors designated as the Carolina Industrial
 Group for Fair Utility Rates IV ("CIGFUR"), a group of large industrial customers that

purchase gas delivery and associated service from Piedmont Natural Gas Company,
Inc. ("Piedmont" or "Company"). CIGFUR's members consist of customers served
principally under Schedule 114 Large Interruptible Transportation Service and also
under Schedule 113 Large General Transportation Service. Each CIGFUR member is
a major employer in the county where it has a manufacturing plant, providing hundreds
if not thousands of full-time jobs that are vital to the local economies in the Piedmont
service area.

8 Q HAVE YOU PRESENTED TESTIMONY IN PRIOR PROCEEDINGS BEFORE THE 9 NORTH CAROLINA UTILITIES COMMISSION ("COMMISSION")?

10 A Yes. I have been involved in many prior proceedings before this Commission and have 11 presented testimony in many of those proceedings. I have been involved with matters 12 involving ratemaking issues in North Carolina for decades, including many cases 13 involving Piedmont's parent Company, Duke Energy Corporation. I also presented 14 testimony in the most recent Piedmont general rate case, Docket No. G-9, Sub 743.

15

Q

WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?

A My testimony is directed toward Piedmont's natural gas cost of service study and the allocation of any allowed gas distribution rate increase to rate classes. I have examined the testimony and exhibits presented by Piedmont in this case with respect to cost of service, revenue allocation and rate design, and I will comment on the propriety of these proposals. I also comment on Piedmont's Integrity Management Rider ("IMR") and the proposed charges associated with the IMR to Piedmont customers. I also comment on Piedmont's proposed treatment of the Special Contract segment including the affiliate category within the Power Generation Contract class. Finally, I review Piedmont's
 requested rate of return on equity ("ROE").

3 Q DOES YOUR TESTIMONY ADDRESS PIEDMONT'S NEED FOR AN OVERALL

4 INCREASE IN GAS SERVICE RATES?

5 A In order to make my presentation consistent with the revenue levels requested by 6 Piedmont, I have, in many instances, used its proposed figures for rate base, operating 7 income and rate of return. Use of these numbers should not be interpreted as an 8 endorsement of them for purposes of determining the total dollar amount of rate 9 increase to which Piedmont may be entitled. I focus my recommendations instead on 10 the appropriate distribution to classes of any amount of rate increase allowed by the 11 Commission.

12 Summary of Conclusions and Recommendations

13 Q PLEASE BRIEFLY SUMMARIZE YOUR CONCLUSIONS AND

14 **RECOMMENDATIONS IN THIS PROCEEDING?**

- 15 A The summary of my position and recommendations is listed below:
- Piedmont's gas rates should be based on the cost of providing service to each customer class. They are not.
- Piedmont's gas cost of service study is a form of a peak and average method and allocates excessive cost to high load factor customers on a throughput weighted allocation as compared to a peak demand cost of service study, which would more accurately reflect cost causation.
- Piedmont's cost of service study shows extreme variances in class rates of return.
 Interruptible service rates currently provide a rate of return of 20.79% and the rate
 of return under Piedmont's proposed rates would increase to 23.40%. In contrast,
 Piedmont's request is to earn an allowed overall rate of return of 7.27%.
- Piedmont's proposed method of distributing the requested increase to non-contract classes makes some movement toward cost of service, but increases the subsidy provided by non-contract customers to special contract customers.

- The Interruptible service class is paying rates far in excess of cost of service, and rates should actually be reduced. Certainly no rate increase is warranted for the Interruptible service rate.
- 6. Approximately 22% of Piedmont's rate base (investment) is dedicated to serving the Special Contract classes which do not receive any rate increase under Piedmont's structure. The largest Special Contract class is Power Generation which is almost entirely comprised of Piedmont affiliates. The second largest class is Municipal Contracts, which according to Piedmont's cost of service produces a negative rate of return. Any revenue loss due to these contracts should not be borne by Piedmont's other customers.
- The Special Contract customers are also not directly included in the Infrastructure Management Recovery Rider ("IMR") mechanism, but provide a credit to the IMR. There is no showing regarding the adequacy of the credit. The IMR should be borne by all customers.
- Piedmont's request to earn a 10.4% ROE is excessive compared to the national average of authorized returns, which is approximately 9.56%. Since Piedmont has rider mechanisms in place, the national average ROE of 9.56% should be considered as an upper limit on the ROE approved in this proceeding.
- 9. Piedmont proposes significant increases to higher usage blocks of Rate Schedules
 113 and 114, which is inappropriate. Rate Schedule 114 should be reduced, not
 increased. A declining block rate should be designed to collect fixed costs in the
 initial usage blocks and, once fixed costs are recovered, the higher usage blocks
 only need to recover variable costs. To the extent the Commission approves a
 lower increase than the \$109 million requested by Piedmont, I recommend that the
 higher usage blocks be lowered below current levels to reflect only variable costs.
- 26 10. Piedmont's parent company and affiliates have testified consistently before this and
 27 other commissions that rates should be within a 10 percent index band of the
 28 system average rate of return and that subsidies/excess rate levels should be
 29 decreased by 25% in distributing any allowed increase. Piedmont's existing rates
 30 deviate significantly from cost and many rate classes are hundreds of points outside
 31 the 10 percent band. It is recommended that Piedmont be ordered to follow the
 32 approach of Duke Energy, and move rates closer to cost in a meaningful manner.

33 Cost of Service and Rate Design Principles

34 Q COULD YOU PLEASE EXPLAIN THE RATEMAKING PROCESS AND THE DESIGN

- 35 **OF RATES?**
- 36 A The ratemaking process has three steps. First, we must determine the utility's total
- 37 revenue requirement and whether an increase or decrease in revenues is necessary.
- 38 Second, we must determine how any alterations in the utility's costs and/or revenues

should be distributed among the major customer classes. A determination of how many
dollars of revenue should be produced by each class is essential for obtaining the
appropriate level of rates. Finally, individual tariffs must be designed to produce the
required amount of revenues for each class of service and to reflect the cost of serving
customers within that class.

6 The guiding principle at each step should be cost of service. In the first step – 7 determining revenue requirements – it is universally agreed that the utility is entitled to 8 an increase only to the extent that its actual cost of service has increased. If current 9 rate levels exceed the utility's revenue requirement, a rate reduction is required. In 10 short, overall rate revenues should equal actual cost of service. The same principle 11 should apply in the next two steps. Each major customer class should produce 12 revenues equal to the cost of serving that particular class, no more and no less. This 13 may require a rate increase for some classes and a rate decrease for other classes. 14 The standard tool for making this determination is a class cost of service study which 15 shows the rates of return for each class of service. Rate levels should be modified so 16 that each major class of service provides approximately the same rate of return. 17 Finally, in designing individual tariffs, the goal should also be to relate the rate design 18 of each class to the cost of service so that each customer's rate tracks, to the extent 19 practicable, the utility's cost of providing service to that customer.

20 Q WHY IS IT IMPORTANT TO ADHERE TO BASIC COST OF SERVICE PRINCIPLES 21 IN THE RATEMAKING PROCESS?

A The basic reasons for using cost of service as the primary factor in the ratemakingprocess are equity and stability.

1 Q HOW IS THE EQUITY PRINCIPLE ACHIEVED BY BASING RATES ON COSTS?

A When rates are based on cost, each customer (to the extent practicable) pays what it costs the utility to serve that customer, no more and no less. If rates are not based on cost of service, then some customers contribute disproportionately to the utility's revenues by subsidizing service provided to other customers. This is inherently inequitable.

7 Q PLEASE DISCUSS THE STABILITY CONSIDERATION.

8 A When rates are closely tied to costs, the earnings impact on the utility associated with 9 changes in customer usage patterns will be minimized as a result of rates being 10 designed in the first instance to track changes in the level of costs. Thus, cost-based 11 rates provide an important enhancement to a utility's earnings stability, reducing its 12 need to file for future rate increases.

13 From the perspective of the customer, cost-based rates provide a more reliable 14 means of determining future levels of costs and also provide more accurate price 15 signals. If rates are based on factors other than costs, it becomes much more difficult 16 for customers to translate expected utility-wide cost changes (i.e., expected increases 17 in overall revenue requirements) into changes in the rates charged to particular 18 customer classes (and to customers within each class). Again, from the industrial 19 customer's perspective, this situation reduces the attractiveness of expansion, as well 20 as of continued operations, because of the lessened ability to plan or predict future 21 levels of costs or effectively respond to price signals.

1	Q	WHEN YOU SAY "COST," TO WHAT TYPE OF COST ARE YOU REFERRING?
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A I am referring to the utility's "embedded" or actual accounting costs of rendering service;
that is, those costs which are used by the Commission in establishing the utility's overall
revenue requirement.

5 Q WOULD YOU PLEASE COMMENT ON THE BASIC PURPOSE OF A COST OF 6 SERVICE STUDY?

7 А After determining the overall cost of service or revenue requirement, a cost of service 8 study is used to allocate the cost of service among customer classes. A cost of service 9 study shows how each major customer class contributes to the total system cost. For 10 example, when a class produces the same rate of return as the total system, it is 11 returning to the utility revenues just sufficient to cover the costs incurred in serving it 12 (including a reasonable return on investment). If a class produces a below-average 13 rate of return, then the revenues are insufficient to cover all relevant costs. On the 14 other hand, if a major class produces an above-average rate of return, it is paying 15 revenues beyond sufficient to cover the cost attributable to it. In addition, it is 16 subsidizing part of the cost attributable to other classes which produce a below-average 17 rate of return. The class cost of service study is important because it demonstrates the 18 various class revenue requirements, as well as the rates of return under current and 19 proposed rates.

20 Q WOULD YOU PLEASE COMMENT ON THE PROPER FUNDAMENTALS OF A 21 COST OF SERVICE STUDY?

A Yes. Cost of service is a basic and fundamental ingredient to proper ratemaking. In
 all class cost of service studies, certain fundamental concepts must be recognized. Of

primary importance among these concepts is the functionalization, classification, and
allocation of costs. Functionalization is the determination and arrangement of costs
according to major functions, such as transmission, distribution and storage of gas.
Classification involves identifying the nature of these costs as to whether they vary with
the quantity of gas consumed, the demand placed upon the system, or the number of
customers being served.

7 Fixed costs are those costs which tend to remain constant over the short run 8 irrespective of changes in gas deliveries and are generally considered to be 9 demand-related. Fixed costs include those costs which are a function of the size of the 10 investment in utility facilities and those costs necessary to keep the facilities "on-line." 11 Variable costs, on the other hand, are basically those costs which tend to vary with 12 throughput and are generally considered to be commodity-related. Customer-related 13 costs are those which are closely related to the number of customers served, rather 14 than the quantity of gas consumed or the demands placed upon the system. A correct 15 application of these concepts is essential to the proper development of a cost of service 16 study, as well as appropriate rate design within each customer class.

With respect to allocation, fixed costs should be allocated on a peak demand
factor, variable costs should be allocated on a throughput factor, and customer-related
costs should be allocated on a per customer allocation factor.

Piedmont's Gas Cost of Service Study 1

2 Q HAVE YOU REVIEWED THE GAS COST OF SERVICE STUDIES PERFORMED BY PIEDMONT IN THIS PROCEEDING? 3

4 А Yes. Piedmont witness Cynthia A. Menhorn submitted 2020 cost of service studies 5 based on per book results, present rate-adjusted results, and under Piedmont's proposed rates. I will focus on the present rates adjusted for test year study. 6

7

Q DO YOU AGREE WITH THE ALLOCATION METHODS UTILIZED BY PIEDMONT IN 8 ITS TEST YEAR 2020 GAS COST OF SERVICE STUDY?

9 А With the exception of the peak and average allocation method which allocates more 10 cost to high load factor customers, I basically agree with the Piedmont cost of service 11 study. However, the 50% throughput weighting in the peak and average allocator is 12 unsupported, arbitrary, and inconsistent with system design. The peak day demand method is more reflective of cost causation and system design. 13

14 Piedmont states that its system is designed to meet all firm customer demands 15 under design day conditions. The allocation of costs should follow system design to 16 reflect cost-causation. Average demand (throughput) is not relevant and the 50% 17 weighting is unsupported by study or fact.

IS THE ALLOCATION OF FIXED DELIVERY COSTS BASED ON DESIGN DAY 18 Q 19 DEMAND DISCUSSED IN THE NATIONAL ASSOCIATION OF REGULATORY 20 COMMISSIONERS ("NARUC") GAS DISTRIBUTION RATE DESIGN MANUAL?

21 А Yes. NARUC recognizes that distribution mains should be allocated to customer 22 classes based on: (1) design peak day demands for the demand component; and

- 1 (2) the number of customers for the customer component. In that regard, the NARUC
- 2 <u>Gas Distribution Rate Design Manual</u> states the following:

3 Demand or capacity costs vary with the size of plant and equipment. 4 They are related to maximum system requirements which the system is 5 designed to serve during short intervals and do not directly vary with the 6 number of customers or their annual usage. Included in these costs 7 are: the capital costs associated with production, transmission and 8 storage plant and their related expenses; the demand cost of gas; and 9 most of the capital costs and expenses associated with that part of the 10 distribution plant not allocated to customer costs, such as the costs associated with distribution mains in excess of the minimum size. 11 12 (NARUC Manual, Gas Distribution Rate Design, June 1989, pp. 23-24; 13 emphasis added)

14 Q ARE YOU AWARE OF ANY OTHER AUTHORITATIVE AGENCY'S POSITION ON

15 THE CLASSIFICATION AND ALLOCATION OF GAS DISTRIBUTION MAIN

- 16 **COSTS?**
- 17 A Yes. In Order 636, the Federal Energy Regulatory Commission ("FERC") endorsed
- 18 the straight fixed-cost variable ("SFV") cost methodology, which allocates fixed pipeline
- 19 cost 100% on a demand basis. In this regard, FERC states:
- 20The Commission believes that requiring SFV comports with and21promotes Congress' goal of a national gas market as discussed above22and goes hand-in-hand with the equality principle.
- 23

24Moreover, the Commission's adoption of SFV should maximize pipeline25throughput over time by allowing gas to compete with alternate fuels on26a timely basis as the prices of alternate fuels change. The Commission27believes it is beyond doubt that it is in the national interest to promote28the use of clean and abundant natural gas over alternate fuels such as29foreign oil. SFV is the best method for doing that. (FERC Order 636,30Final Rule Issued April 8, 1992, pp. 127-129 [Footnote omitted.])

- 31 The FERC SFV allocation method appropriately treats fixed pipeline costs as demand-
- 32 related costs. Similarly, transmission and distribution main costs not classified as
- 33 customer-related on Piedmont's system should be treated as demand-related costs to

achieve the goals and benefits outlined by the FERC and which comport with NARUC
 guidance.

Q TO YOUR KNOWLEDGE, HAVE ELECTRIC UTILITIES USED THE PEAK AND AVERAGE METHOD TO ALLOCATE TRANSMISSION OR DISTRIBUTION COSTS 5 IN NORTH CAROLINA?

A No. To my knowledge, the peak and average method has not been used to allocate
transmission or distribution costs in North Carolina. I am not aware that it has ever
been proposed. The peak and average method should not be used to allocate the
delivery costs for gas.

10QHAS PIEDMONT PERFORMED A STUDY USING THE PEAK DEMAND TO11ALLOCATE FIXED COSTS TO CLASSES?

12 A Yes. Piedmont performed a peak demand study in response to discovery from 13 CIGFUR. In that study, peak demand data is used to allocate fixed demand-related 14 delivery costs in place of the peak and average method. The results of the peak 15 demand study are shown on Exhibit NP-2.

16 The peak demand study is a more correct representation of the actual cost of 17 service associated with serving the various customer classes. The main issue is the 18 amount of subsidy levels that currently exist in Piedmont's rates and how to correct the 19 subsidies without harsh impacts or rate shock to subsidized classes. The peak demand 20 shows that certain subsidies are larger and make any corrective distribution of the 21 requested increase even more difficult to manage in this case.

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1 Q HAS DUKE ENERGY PROGRESS LLC OFFERED TESTIMONY ON THIS SUBJECT

2 BEFORE THE COMMISSION?

- 3 A Yes. Laura A. Bateman recently presented testimony on behalf of Duke Energy
- 4 Progress, LLC which stated:

5

6

Q. HOW DO YOU PROPOSE TO ALLOCATE THIS ADDITIONAL REVENUE REQUIREMENT AMONG THE CLASSES?

7 A. Bateman Exhibit 2 shows how the additional revenue requirement is 8 spread among the classes and how the target revenue requirements for rate design are established. The rate increase shown in the 9 exhibit has been allocated to the rate classes on the basis of rate 10 11 base, and then combined with an additional increase or decrease at 12 the customer class level that results in a 25 percent reduction in 13 each class's variance from the overall average rate of return. This 14 additional increase or decrease at the customer class level nets to 15 \$0 for the North Carolina retail jurisdiction in total, but brings the 16 customer classes closer to the average rate of return, and is an 17 appropriate way to gradually bring rate classes closer to rate parity 18 over time. This approach is consistent with the approaches in the last general rate proceedings for both DE Carolinas and DE 19 20 Progress. (Docket No. E-2, Sub 1142, Bateman Direct, page 10, 21 lines 6-17)

22 Q HAS DUKE ENERGY CAROLINAS, LLC PRESENTED A CONSISTENT POSITION

23 **REGARDING RATE PARITY AMONG THE VARIOUS RATE CLASSES?**

- 24 A Yes. Mr. Michael J. Pirro presented testimony on behalf of Duke Energy Carolinas
- 25 LLC, which stated:
- 26 This historical subsidy has, in the past, been beyond the range of 27 reasonableness, which we define as class rates of return within 10 28 percent of the total Company rate of return. The updated comparison 29 through the test period year now shows significant convergence of the class rate of return over all classes towards the band of reasonableness 30 31 demonstrating the success of the strategy of gradually reducing the 32 subsidy/excess by 25 percent. Continuation of this trend would be 33 encouraging and desirable.
- 34The Company remains committed to monitoring subsidy / excess levels35and making improvements to ensure its rates are fair across the classes36of customers served. (Docket No. E-7, Sub 1146, Pirro Direct, page 21,37lines 12-22)

Duke witness Pirro presented similar testimony in the most recent Duke Energy
 Progress, LLC and Duke Energy Carolinas, LLC general rate cases as well. (Docket
 No. E-7, Sub 1214, Pirro Direct, p. 20, lines 9-18)

4 Q HAVE YOU EXAMINED THE CLASS RATES OF RETURN, INDEXES AND 5 SUBSIDIES PRESENTED BY PIEDMONT?

A Yes. Exhibit NP-1 shows the results of Piedmont's peak and average cost of service,
indexes and subsidies at both current rates and rates proposed by Piedmont. Exhibit
NP-2 shows similar information based on the peak demand method.

9 Q WHAT DO YOU CONCLUDE?

10 A Piedmont's rates are not adequately based on cost of service, and Piedmont's 11 proposed distribution of the increase only to non-contract customers results in an 12 increase in the subsidy provided by non-contract customers to special contract 13 customers as shown on Exhibits NP-1 and NP-2.

14 Q WHY ARE CONTRACT CLASSES NOT INCLUDED IN PIEDMONT'S REVENUE 15 DISTRIBUTION?

A Piedmont has apparently entered into contracts that do not provide for increases in rate levels to the contract classes. This is problematic because Piedmont proposes to collect the entire claimed increase in system revenue requirement from all non-contract customer classes. The contract classes represent approximately 22% of Piedmont's rate base (investment), and the return associated for this rate base investment requested by Piedmont in this proceeding would be borne by all other non-contract customers, based on the rates and class increases proposed by Piedmont.

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1 Q IS THIS APPROACH REASONABLE?

A No. If Piedmont will not or cannot raise the rates to earn its requested return on 22%
of its investment attributable to the special contract class of customers, the Commission
should not allow Piedmont to increase the rates of other non-contract customers to
make up the shortfall. Additionally, the Commission should be aware that the largest
Special Contract class, Power Generation, involves contracts with affiliates of
Piedmont, making the Company's proposal even more problematic and self-serving.
Certainly, affiliate transactions require additional scrutiny by the Commission.

9 Q WHAT OTHER CONTRACT CLASSES WOULD RECEIVE NO INCREASE UNDER 10 PIEDMONT'S PROPOSAL?

11 A The Municipal Contract class is the second largest Special Contract class and shown 12 to produce a negative rate of return. If Piedmont chooses to earn a negative return on 13 this class, other ratepayers should not make up the difference. The smallest Special 14 Contract class, Special Contracts, does provide an above average return and under 15 cost based ratemaking should not be increased, but the same is true of certain other 16 non-contract classes, such as the Interruptible service class.

17QWHAT RATE OF RETURN IS PRODUCED BY THE INTERRUPTIBLE SERVICE18CLASS?

A The Interruptible service class is shown to provide Piedmont a rate of return of 20.79%
 under current rates and that excessive return would increase to 23.40% under rates
 proposed by Piedmont based on the peak and average method. This is in contrast to
 Piedmont's request to earn a return of 7.27% on its entire rate base in this proceeding.

The Commission should not approve any increase to a class that currently produces a
 rate of return of 20.79%. Using the more cost-based peak demand method, the return
 for the interruptible service class is even higher.

4 **Distribution of Increase**

5 Q HAVE YOU REVIEWED PIEDMONT'S PROPOSED DISTRIBUTION OF ITS 6 REQUESTED BASE RATE INCREASE?

7 A Yes. Piedmont's proposed distribution of its base rate increase is shown on Exhibit
8 NP-3. Piedmont's proposed distribution increases base rates to all non-contract
9 classes by 11.9% and proposes no increase in rates to Special Contract classes.
10 Piedmont's proposal is not adequately cost based, fair or reasonable and should be
11 modified.

12 If Piedmont refuses to or has agreed not to increase rates to contract classes 13 that do not provide the requested rate of return, the solution should involve 14 shareholders, not subsidies from all other ratepayers. Another alternative is to exclude 15 the special contract classes and their associated revenue requirement from this 16 proceeding, preventing harm to other classes

17 Q HAVE YOU PERFORMED A DISTRIBUTION SIMILAR TO PIEDMONT'S, BUT WITH

18 NO INCREASE TO INTERRUPTIBLE SERVICE AND REASONABLE

19 PARTICIPATION BY THE SPECIAL CONTRACT CLASS?

A Yes. Piedmont's approach modified to include Special Contract customers and
 eliminate the increase to Interruptible service due to the excessive return provided to
 Piedmont by that class is shown on Exhibit NP-4.

1QTHE APPROACH BY DUKE ENERGY AND DUKE PROGRESS YOU REFERENCED2PREVIOUSLY INDICATED A RATE BASE ALLOCATION OF THE INCREASE. DID3YOU PERFORM A DISTRIBUTION TO CLASSES ON THAT BASIS?

4 А An allocation of Piedmont's requested increase using rate base from the Yes. 5 Company's cost of service study to the special contract class with no increase to 6 Interruptible service is shown on Exhibit NP-5. Of particular concern is that the 7 combined Special Contract classes require a \$22.7 million, or approximately 17.9%, 8 rate increase just to keep the subsidy it receives from getting larger. Reducing 9 subsidies by 25% as recommended by Duke witnesses in other proceedings is 10 problematic due to the extremely large imbalances that currently exist in Piedmont's 11 rates. One solution is to use the difference between Piedmont's requested increase 12 and the ultimate amount authorized to reduce subsidy/excess levels by lowering the 13 proposed increases to those classes providing above system average returns.

14 Q HOW DOES PIEDMONT ALLOCATE THE IMR TO CLASSES?

A Piedmont allocates the IMR to classes on the basis of margin, and includes a Special Contract Credit representing the amount provided by Special Contract customers towards the IMR. As previously stated, Special Contract customers represent 22% of Piedmont's rate base investment and Piedmont has not demonstrated that the credits cover the appropriate level of IMR costs for those customers. Customers paying margins in excess of cost are overcharged by this approach, in addition to paying for any shortfall associated with the Special Contract classes.

1 Q HAVE YOU REVIEWED PIEDMONT'S PROPOSED RATE DESIGN FOR RATE 2 SCHEDULES 113 AND 114?

3 А Piedmont's proposed rate design is shown on Exhibit NP-6. Piedmont is Yes. 4 proposing significant increases to the higher usage blocks of Rate Schedules 113 and 5 114, which is inappropriate and would result in harsh impacts or rate shock to higher 6 usage customers. Rate Schedule 114 requires a reduction, not a harsh increase. A 7 declining block rate structure should be designed to collect fixed costs in the initial 8 usage blocks and, once fixed costs are recovered, the higher usage blocks should only 9 be recovering variable costs. To the extent the Commission approves a lower increase 10 than the \$109 million requested, I recommend that the higher usage blocks be lowered 11 to reflect only variable costs. The significant overpayments by Interruptible 12 Transportation customers will continue unless addressed in the distribution of the 13 increase to classes and the rate design, as previously discussed.

14 **Return on Equity**

15 Q IS PIEDMONT'S PROPOSED 10.40% ROE REQUEST APPROPRIATE?

A No. Piedmont's requested ROE of 10.40% is excessive and should be rejected. The
Company's current authorized ROE is 9.70%, which was authorized by approving a
stipulation in the Commission's Final Order in Docket No. G-9, Sub 743, issued on
October 31, 2019.

Every quarter, Regulatory Research Associates, an affiliate of SNL Financial, updates its *Major Rate Case Decisions* report that covers electric and natural gas utility rate case outcomes. Specifically, this report tracks the authorized ROEs resulting from utility rate cases around the country. The most recent report has been updated through March 31, 2021 and shows that the national average authorized ROE for gas utilities Aug 11 2021

for the 12 months ending March 31, 2021 was 9.56%. This is 14 basis points below
 Piedmont's currently authorized ROE. The Commission also should consider the IMR,
 and any other mechanisms which provide Piedmont with additional cost recovery
 outside of a base rate case in setting a reasonable ROE.

5 On that basis, the Company's current ROE, and definitely its requested ROE, 6 are significantly above a reasonable cost of equity. I recommend that the Commission 7 authorize a ROE that does not exceed the national average of 9.56%.

8 Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

9 A Yes, it does.

Qualifications of Nicholas Phillips, Jr.

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- 2 A Nicholas Phillips, Jr. My business address is 16690 Swingley Ridge Road, Suite 140,
- 3 Chesterfield, MO 63017.

4 Q PLEASE STATE YOUR OCCUPATION.

5 A I am a consultant in the field of public utility regulation with the firm of Brubaker &
6 Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

7 Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL

8 **EMPLOYMENT EXPERIENCE.**

- 9 A I graduated from Lawrence Institute of Technology in 1968 with a Bachelor of Science
 10 Degree in Electrical Engineering. I received a Master's of Business Administration
 11 Degree from Wayne State University in 1972. Since that time I have taken many
 12 Masters and Ph.D. level courses in the field of Economics at Wayne State University
 13 and the University of Missouri.
- 14 I was employed by The Detroit Edison Company in June of 1968 in its 15 Professional Development Program. My initial assignments were in the engineering 16 and operations divisions where my responsibilities included the overhead and 17 underground design, construction, operation and specifications for transmission and 18 distribution equipment; budgeting and cost control for operations and capital 19 expenditures; equipment performance under field and laboratory conditions; and 20 emergency service restoration. I also worked in various districts, planning system 21 expansion and construction based on increased and changing loads.

1 Since 1973, I have been engaged in the preparation of studies involving 2 revenue requirements based on the cost to serve electric, steam, water and other 3 portions of utility operations.

Other responsibilities have included power plant studies; profitability of various
segments of utility operations; administration and recovery of fuel and purchased power
costs; sale of utility plant; rate investigations; depreciation accrual rates; economic
investigations; the determination of rate base, operating income, rate of return; contract
analysis; rate design and revenue requirements in general.

I held various positions at Detroit Edison, including Supervisor of Cost of
Service, Supervisor of Economic studies and Depreciation, Assistant Director of Load
Research, and was designated as Manager of various rate cases before the Michigan
Public Service Commission and the Federal Energy Regulatory Commission. I was
acting as Director of Revenue Requirements when I left Detroit Edison to accept a
position at Drazen-Brubaker & Associates, Inc., in May of 1979.

15 The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and 16 has assumed the utility rate and economic consulting activities of Drazen Associates, 17 Inc., active since 1937. In April 1995, the firm of Brubaker & Associates, Inc. was 18 formed. It includes most of the former DBA principals and staff.

Our firm has prepared many studies involving original cost and annual depreciation accrual rates relating to electric, steam, gas and water properties, as well as cost of service studies in connection with rate cases and negotiation of contracts for substantial quantities of gas and electricity for industrial use. In these cases, it was necessary to analyze property records, depreciation accrual rates and reserves, rate base determinations, operating revenues, operating expenses, cost of capital and all other elements relating to cost of service. In general, we are engaged in valuation and depreciation studies, rate work,
 feasibility, economic and cost of service studies and the design of rates for utility
 services. In addition to our main office in St. Louis, the firm also has branch offices in
 Phoenix, Arizona and Corpus Christi, Texas.

5 Q WHAT ADDITIONAL EDUCATIONAL, PROFESSIONAL EXPERIENCE AND 6 AFFILIATIONS HAVE YOU HAD?

7 A I have completed various courses and attended many seminars concerned with rate
8 design, load research, capital recovery, depreciation, and financial evaluation. I have
9 served as an instructor of mathematics of finance at the Detroit College of Business
10 located in Dearborn, Michigan. I have also lectured on rate and revenue requirement
11 topics.

12 Q HAVE YOU PREVIOUSLY APPEARED BEFORE A REGULATORY COMMISSION?

13 Yes. I have appeared before the public utility regulatory commissions of Arkansas, А 14 Delaware, Illinois, Indiana, Iowa, Kansas, Kentucky, Maryland, Michigan, Missouri, 15 Montana, New Jersey, New York, North Carolina, Ohio, Pennsylvania, South Carolina, 16 South Dakota, Virginia, West Virginia, and Wisconsin, the Lansing Board of Water and 17 Light, the District of Columbia, and the Council of the City of New Orleans in numerous 18 proceedings concerning cost of service, rate base, unit costs, pro forma operating 19 income, appropriate class rates of return, adjustments to the income statement, 20 revenue requirements, rate design, integrated resource planning, power plant 21 operations, fuel cost recovery, regulatory issues, rate-making issues, environmental 22 compliance, avoided costs, cogeneration, cost recovery, economic dispatch, rate of 23 return, demand-side management, regulatory accounting and various other items.

Class Cost of Service Study Results at Present as Adjusted and Proposed Rates using Peak & Average Test Year Ended December 31, 2020

			Presen	t Rates as	Ad	justed	Proposed Rates						
				Relative			Relative						
			Rate of	Rate of	9	Subsidy	Rate of	Rate of	Subsidy				
Line	Customer Class	Rate	Return	Return		(000)	Return	Return		(000)			
			(1)	(2)		(3)	(4)	(5)		(6)			
1	Residential	101	5.24%	95	\$	(9,149)	7.56%	104	\$	8,500			
2	Small General Service	102	8.89%	160	\$	39,903	11.66%	160	\$	52,235			
3	Medium General Service	152	14.99%	270	\$	13,810	18.44%	254	\$	16,327			
	Large General Service												
4	Sales	103	-2.60%	-47	\$	(4,614)	-1.54%	-21	\$	(4,992)			
5	Transportation	113	-3.02%	-55	\$	(35,992)	-1.62%	-22	\$	(37,363)			
6	Total Large General Service		-2.97%	-54	\$	(40,607)	-1.61%	-22	\$	(42,355)			
	Interruptible												
7	Sales	104	31.13%	562	\$	383	34.24%	471	\$	403			
8	Transportation	114	20.52%	370	\$	8,679	23.12%	318	\$	9,184			
9	Total Interruptible		20.79%	375	\$	9,062	23.40%	322	\$	9,587			
10	Military Transportation	T-10	-2.76%	-50	\$	(2,877)	-1.78%	-25	\$	(3,137)			
	Special Contracts												
11	Special Contracts		11.75%	212	\$	4,017	11.23%	154	\$	2,563			
12	Municipal Contracts		-2.22%	-40	\$	(15,561)	-2.73%	-38	\$	(20,066)			
13	Power Generation Contracts		5.67%	102	\$	1,400	5.15%	71	\$	(23,654)			
14	Total Special Contracts		4.81%	87	\$	(10,144)	4.29%	59	\$	(41,157)			
15	Total		5.54%	100	\$	(0)	7.27%	100	\$	-			

Source: Exhibit ___ (CAM-2)

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Class Cost of Service Study Results at Present as Adjusted and Proposed Rates using Peak Demand <u>Test Year Ended December 31, 2020</u>

			Presen	t Rates as	a Ad	justed	Proposed Rates						
				Relative			Relative						
			Rate of	Rate of		Subsidy	Rate of	Rate of	ę	Subsidy			
Line	Customer Class	Rate	Return	Return		(000)	Return	Return		(000)			
			(1)	(2)		(3)	(4)	(5)		(6)			
1	Residential	101	4.91%	89	\$	(19,418)	7.17%	99	\$	(3,311)			
2	Small General Service	102	8.53%	154	\$	36,238	11.22%	154	\$	48,019			
3	Medium General Service	152	14.96%	270	\$	13,779	18.40%	253	\$	16,291			
	Large General Service												
4	Sales	103	-2.38%	-43	\$	(4,346)	-1.27%	-17	\$	(4,683)			
5	Transportation	113	-2.47%	-45	\$	(30,987)	-0.90%	-12	\$	(31,606)			
6	Total Large General Service		-2.46%	-44	\$	(35,333)	-0.95%	-13	\$	(36,289)			
	Interruptible												
7	Sales	104	300.83%	5427	\$	578	328.05%	4510	\$	627			
8	Transportation	114	557.87%	10063	\$	16,901	616.43%	8475	\$	18,640			
9	Total Interruptible		542.43%	9785	\$	17,479	599.11%	8237	\$	19,268			
10	Military Transportation	T-10	-2.84%	-51	\$	(2,935)	-1.87%	-26	\$	(3,204)			
	Special Contracts												
11	Special Contracts		13.91%	251	\$	4,914	13.39%	184	\$	3,594			
12	Municipal Contracts		-2.35%	-42	\$	(16,124)	-2.87%	-39	\$	(20,713)			
13	Power Generation Contracts		5.67%	102	\$	1,400	5.15%	71	\$	(23,654)			
14	Total Special Contracts		4.83%	87	\$	(9,810)	4.32%	59	\$	(40,773)			
15	Total		5.54%	100	\$	(0)	7.27%	100	\$	(0)			

Source: CIGFUR 1-24 CONFIDENTIAL Attachment

Allocation of Proposed Revenue using Piedmont's Proposed Allocation of Increase <u>Test Year Ended December 31, 2020</u> (Dollars in Thousands)

Line	Customer Class	Rate		Current Total Revenue	F Bas I	Proposed se Revenue Increase	Proposed Total Revenue	% Increase	
				(1)		(2)	(3)	(4)	
1	Residential	101	\$	552,246	\$	65,820	\$ 618,066	11.9%	
2	Small General Service	102	\$	250,716	\$	29,959	\$ 280,676	11.9%	
3	Medium General Service	152	\$	40,884	\$	4,439	\$ 45,324	10.9%	
4	Natural Gas Vehicle Service	142	\$	1,037	\$	123	\$ 1,159	11.9%	
5	Military Transportation Service	T-10	\$	2,262	\$	396	\$ 2,657	17.5%	
6	Outdoor Gas Light Service	105	\$	102	\$	12	\$ 114	11.9%	
7	Large General Service	103/113	\$	44,471	\$	6,851	\$ 51,322	15.4%	
8	Interruptible Service	104/114	<u>\$</u>	27,572	\$	1,425	\$ 28,998	5.2%	
9	Subtotal		\$	919,290	\$	109,026	\$ 1,028,316	11.9%	
10	Special Contracts		\$	126,595	\$		\$ 126,595	0.0%	
11	Total		\$	1,045,886	\$	109,026	\$ 1,154,911	10.4%	

Source: Table CAM-2

Allocation of Proposed Revenue Including Special Contracts and No Increase for Interruptible Service and using Average Increase to Contract Class <u>Test Year Ended December 31, 2020</u> (Dollars in Thousands)

			Current		F	Proposed		Proposed	
				Total	Bas	se Revenue		Total	%
Line	Customer Class	Rate		Revenue		ncrease		Revenue	Increase
				(1)		(2)		(3)	(4)
1	Residential	101	\$	552,246	\$	58,538	\$	610,784	10.6%
2	Small General Service	102	\$	250,716	\$	26,576	\$	277,292	10.6%
3	Medium General Service	152	\$	40,884	\$	3,925	\$	44,809	9.6%
4	Natural Gas Vehicle Service	142	\$	1,037	\$	110	\$	1,146	10.6%
5	Military Transportation Service	T-10	\$	2,262	\$	368	\$	2,630	16.3%
6	Outdoor Gas Light Service	105	\$	102	\$	11	\$	113	10.6%
7	Large General Service	103/113	\$	44,471	\$	6,302	\$	50,773	14.2%
8	Interruptible Service	104/114	\$	27,572	\$	-	\$	27,572	0.0%
9	Special Contracts		\$	126,595	\$	13,197	\$	139,792	10.4%
10	Total		\$	1,045,886	\$	109,026	\$	1,154,911	10.4%

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Allocation of Proposed Revenue Including Special Contracts and No Increase for Interruptible Service and Holding Contract Class Subsidy Constant <u>Test Year Ended December 31, 2020</u> (Dollars in Thousands)

			Current		F	Proposed		Proposed	0/
Line	Customer Class	Rate		Revenue	Bas	Increase		Revenue	% Increase
				(1)	(2)			(3)	(4)
1	Residential	101	\$	552,246	\$	52,629	\$	604,875	9.5%
2	Small General Service	102	\$	250,716	\$	23,893	\$	274,609	9.5%
3	Medium General Service	152	\$	40,884	\$	3,492	\$	44,376	8.5%
4	Natural Gas Vehicle Service*	142	\$	1,037	\$	99	\$	1,135	9.5%
5	Military Transportation Service	T-10	\$	2,262	\$	348	\$	2,610	15.4%
6	Outdoor Gas Light Service*	105	\$	102	\$	10	\$	112	9.5%
7	Large General Service	103/113	\$	44,471	\$	5,875	\$	50,346	13.2%
8	Interruptible Service	104/114	\$	27,572	\$	-	\$	27,572	0.0%
9	Special Contracts		\$	126,595	\$	22,680	\$	149,276	17.9%
10	Total		\$	1,045,886	\$	109,026	\$	1,154,911	10.4%

* Class not included in cost of service study.

Piedmont Natural Gas Inc. Docket No. G-9, SUB 781

Revenues at Present and Proposed Rates

					rese	ent	Proposed						
				Base R	ate	Margin		Base R	ate	Margin	_	Increas	e
Line	Description	Quantity		Rates	_	Charge		Rates		Charge		Amount	Percent
		(1)		(2)		(3)		(4)		(5)		(6)	(7)
	113 - Large General Transportation Service	vice											
1	Monthly Charge	3,624	\$	350.00	\$	1,268,400	\$	350.00	\$	1,268,400	\$	-	0.0%
2	Demand Charge per DT	1,731,845	\$	2.20	\$	3,810,059	\$	2.42	\$	4,191,065	\$	381,006	10.0%
3	Winter - First 1,500 per DT	2,074,155	\$	0.8454	\$	1,753,491	\$	1.3505	\$	2,801,146	\$	1,047,656	59.7%
4	Winter - Next 3,000 per DT	2,816,846	\$	0.2177	\$	613,227	\$	0.5700	\$	1,605,602	\$	992,375	161.8%
5	Winter - Next 9,000 per DT	3,087,392	\$	0.2215	\$	683,857	\$	0.5000	\$	1,543,696	\$	859,839	125.7%
6	Winter - Next 16,500 per DT	2,072,877	\$	0.1762	\$	365,241	\$	0.4160	\$	862,317	\$	497,076	136.1%
7	Winter - Next 30,000 per DT	1,771,953	\$	0.1427	\$	252,858	\$	0.3650	\$	646,763	\$	393,905	155.8%
8	Winter - Over 60.000 per DT	3.001.054	\$	0.0977	\$	293,203	\$	0.2780	\$	834,293	\$	541.090	184.5%
9	Subtotal Winter	14,824,277	*		\$	3,961,877	*		\$	8,293,817	\$	4,331,940	109.3%
10	Summer - First 1 500 per DT	2 739 064	\$	0 2860	\$	783 372	\$	0 4918	\$	1 347 072	\$	563 699	72 0%
11	Summer - Next 3 000 per DT	3 349 103	ŝ	0.2008	ŝ	702 642	ŝ	0.3577	ŝ	1 197 974	ŝ	495 332	70.5%
12	Summer - Next 9,000 per DT	3 547 521	φ ¢	0.2000	φ ¢	676 867	φ \$	0.3120	φ ¢	1,107,074	¢ ¢	433 152	64.0%
12	Summer - Next 16 500 per DT	2 531 370	Ψ Φ	0.1300	Ψ Φ	131 880	Ψ Φ	0.3123	Ψ Φ	678 013	Ψ Φ	244 024	56 1%
13	Summer - Next 10,500 per DT	2,001,070	φ Φ	0.1710	φ Φ	434,009	φ Φ	0.2002	φ Φ	400,405	φ ¢	244,024	67.00/
14	Summer - Next 30,000 per DT	2,221,400	ф Ф	0.1337	¢	297,009	¢	0.2244	¢	498,495	¢	201,480	07.8%
15	Summer - Over 60,000 per DT	3,512,795	\$	0.0956	<u></u>	335,823	\$	0.1786	<u></u>	627,385	<u></u>	291,562	86.8%
16	Subtotal Summer	17,901,308			\$	3,230,602			\$	5,459,858	\$	2,229,256	69.0%
17	Subtotal				\$	12,270,938			\$	19,213,140	\$	6,942,202	56.6%
18	Integrity Management Rider Revenues				\$	774 862			\$	-	\$	(774 862)	-100.0%
19	Minimum Margin Agreement Revenues				\$	48,643			\$	48,643	\$	(11 1,002)	0.0%
20	Total Revenues				\$	13,094,443			\$	19,261,783	\$	6,167,340	47.1%
	114 - Interruptible Transportation Servio	e											
			•		•		•				•		
21	Monthly Charge	2,891	\$	350.00	\$	1,011,850	\$	350.00	\$	1,011,850	\$	-	0.0%
22	Winter - First 1,500 per DT	1,583,831	\$	0.9170	\$	1,452,373	\$	1.2103	\$	1,916,911	\$	464,538	32.0%
23	Winter - Next 3.000 per DT	2.392.971	\$	0.3806	\$	910.765	\$	0.5071	\$	1.213.476	\$	302.711	33.2%
24	Winter - Next 9.000 per DT	3.198.909	\$	0.3806	\$	1.217.505	\$	0.4450	\$	1.423.515	\$	206.010	16.9%
25	Winter - Next 16,500 per DT	2 248 444	\$	0.3464	\$	778,861	\$	0.3730	\$	838,670	\$	59,809	7.7%
26	Winter - Next 30,000 per DT	2,132,135	Ŝ	0.2808	Ŝ	598,704	Ŝ	0.3270	Ŝ	697,208	Ŝ	98,505	16.5%
27	Winter - Over 60 000 per DT	1 362 136	ŝ	0 1654	ŝ	225 297	ŝ	0 2483	\$	338 218	ŝ	112 921	50.1%
28	Subtotal Winter	12,918,426	Ψ	0.1001	<u>\$</u>	5.183.504	Ψ	0.2100	<u>*</u> \$	6.427.997	<u>\$</u>	1.244.493	24.0%
		,,			Ŷ	0,100,001			Ŷ	0, 121,001	Ŧ	.,,	
29	Summer - First 1,500 per DT	2,242,062	\$	0.7194	\$	1,612,939	\$	0.6716	\$	1,505,769	\$	(107,171)	-6.6%
30	Summer - Next 3,000 per DT	3,162,517	\$	0.3755	\$	1,187,525	\$	0.4900	\$	1,549,633	\$	362,108	30.5%
31	Summer - Next 9,000 per DT	3,786,414	\$	0.3637	\$	1,377,119	\$	0.4300	\$	1,628,158	\$	251,039	18.2%
32	Summer - Next 16,500 per DT	2,689,562	\$	0.3335	\$	896,969	\$	0.3663	\$	985,187	\$	88,218	9.8%
33	Summer - Next 30,000 per DT	2,474,718	\$	0.2396	\$	592,942	\$	0.3060	\$	757,264	\$	164,321	27.7%
34	Summer - Over 60,000 per DT	1,510,970	\$	0.1456	\$	219,997	\$	0.2441	\$	368,828	\$	148,831	67.7%
35	Subtotal Summer	15,866,243			\$	5,887,492			\$	6,794,838	\$	907,346	15.4%
36	Subtotal				\$	12,082,846			\$	14,234,685	\$	2,151,839	17.8%
37	Integrity Management Rider Revenues				\$	767,944			\$	-	\$	(767,944)	-100.0%
38	Minimum Margin Agreement Revenues				\$	822,409			\$	822,409	\$	-	0.0%
39	Total Revenues				\$	13,673,199			\$	15,057,094	\$	1,383,895	10.1%