BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

In the Matter of:)
)
Application of Duke Energy Progress, LLC)
for Adjustments in Electric Rate Schedules)
and Tariffs)

Docket No. 2018-318-E

SURREBUTTAL TESTIMONY OF

JONATHAN WALLACH

ON BEHALF OF

SOUTH CAROLINA STATE CONFERENCE OF THE NATIONAL ASSOCIATION FOR

THE ADVANCEMENT OF COLORED PEOPLE, SOUTH CAROLINA COASTAL

CONSERVATION LEAGUE, AND UPSTATE FOREVER

Resource Insight, Inc.

MARCH 25, 2019

1 I. Introduction

- 2 Q: Please state your name, occupation, and business address.
- A: My name is Jonathan F. Wallach. I am Vice President of Resource Insight,
 Inc., 5 Water Street, Arlington, Massachusetts.
- Q: Are you the same Jonathan F. Wallach who filed direct testimony with
 the Public Service Commission of South Carolina (the "Commission") in
 this proceeding?
- 8 A: Yes.
- 9 Q: On whose behalf are you testifying?

A: I am testifying on behalf of the South Carolina State Conference of the
National Association for the Advancement of Colored People ("SC
NAACP"), the South Carolina Coastal Conservation League ("CCL"), and
Upstate Forever.

14 **Q:** What is the purpose of your surrebuttal testimony?

A: My surrebuttal testimony responds to the rebuttal testimony of Duke Energy
Progress ("DEP" or "the Company") witnesses Kodwo Ghartey-Tagoe,
Janice Hager, and Steven B. Wheeler regarding the Company's proposal to
increase the residential Basic Facilities Charge ("BFC") and regarding the
Company's cost of service study ("COSS"), which served as the basis for its
proposal to increase the residential BFC.

- Q: What is your general response to the Company's rebuttal testimony
 regarding the residential BFC and the COSS?
- A: The rebuttal testimony continues to defend the Company's improper reliance
 on the COSS as the basis for its proposals for the design of residential rates,

in particular as the basis for its proposal to more than triple the residential
BFC. Specifically, DEP asserts that costs classified in the COSS as customerrelated, demand-related, or energy-related should be recovered through a
customer charge, demand rate, or energy rate, respectively. The Company
further contends that rates designed in this fashion reflect cost causation and
therefore would provide appropriate price signals.

7 The Company's contention is wrong on both counts: rates designed in 8 the fashion proposed by DEP would neither reflect cost causation nor provide 9 appropriate price signals. On the contrary, the Company's proposals to triple 10 the residential BFC and to recover demand-related costs through a residential 11 demand charge would lead to subsidization of high-usage customers' costs by 12 low-usage customers and would create economically inefficient price signals.

Q: Why would the Company's formulaic reliance on the COSS to set rates lead to a flawed rate design?

The Company's proposal to design rates that formulaically reflect cost 15 A: classifications in the COSS reflects a failure to recognize that there are 16 17 different objectives when developing a cost of service study than when 18 designing rates. The purpose of a cost of service study is to allocate the total 19 amount of costs incurred by a utility to the various rate classes in a manner 20 that reasonably approximates the extent to which each class "caused" the 21 utility to incur those costs. In contrast, the primary challenge of rate design is 22 to recover the costs allocated to a rate class in a manner that not only allows 23 for an equitable sharing of allocated costs among the customers within the rate class, but also provides reasonable price signals to customers regarding 24 25 the impact of their electricity usage on utility costs.

1 Because of the differing objectives of cost allocation and rate design, 2 the Company's proposal to design residential rates formulaically based on the 3 cost classifications adopted in the Company's COSS would yield rates that neither provide reasonable price signals nor allow for an equitable sharing of 4 5 allocated costs among residential customers. For example, as discussed in detail below, the Company's proposal to recover distribution-grid costs 6 7 classified as demand-related in the COSS through a residential demand 8 charge would distort price signals and encourage inefficient customer 9 behavior. Likewise, while uncollectible costs may be reasonably classified as 10 customer-related in the COSS, the Company's proposal to recover such costs 11 through the residential BFC would result in low-usage customers paying 12 more, and high-usage customers paying less, than their fair share of these 13 costs.

14 Q: Have you revised any of the findings and conclusions in your direct 15 testimony in light of the Company's rebuttal testimony?

16 A: No. Consequently, I continue to recommend that the Commission:

- Reject the Company's use of a minimum-system analysis to classify
 distribution-grid costs as customer-related in the COSS and instead
 require that DEP classify all such distribution-grid costs as demand related.
- Reject the Company's proposal to increase the residential BFC and
 instead direct DEP to increase the residential BFC to \$9.23 per customer
 per month.

1	II.	Response to Company Witness Kodwo Ghartey-Tagoe
2	Q:	How does Mr. Ghartey-Tagoe respond to your testimony regarding the
3		residential BFC?
4	A:	Mr. Ghartey-Tagoe repeats the claim in the Company's direct testimony that
5		high-usage residential customers would subsidize low-usage customers if the
6		residential BFC were not increased as proposed by DEP. ¹
7	Q:	Has the Company substantiated this claim?
8	A:	No.
9	Q:	Does Mr. Ghartey-Tagoe make any new arguments in an attempt to
10		justify the proposed increase in the residential BFC?
11	A:	Yes. Mr. Ghartey-Tagoe offers a new rationale for the proposed increase,
12		contending that the Company's proposal would reduce spikes in monthly
13		bills. ²
14	Q:	How do you respond to Mr. Ghartey-Tagoe's contention that the
15		proposed increase in the residential BFC would reduce monthly bill
16		volatility?
17	A:	The Company is right to be concerned about the financial hardship caused by
18		spikes in monthly bills. However, DEP could more effectively address
19		monthly bill volatility by encouraging customers experiencing repeated
20		payment difficulties to sign up for budget billing under the Company's Equal
21		Payment Plan and by expanding energy efficiency programs targeted to low-
22		income customers.

¹ Rebuttal Testimony of Kodwo Ghartey-Tagoe for Duke Energy Progress, LLC, Docket No. 2018-318-E, 16 (March 18, 2019).

 $^{^{2}}$ Id.

In any event, customers experiencing financial hardship from periodically high bills—who tend to be lower-income consumers—would not likely find reprieve from the Company's proposal to recover the requested revenue increase through higher, but less volatile monthly bills. In other words, consistently higher monthly bills are not made more palatable to vulnerable households simply because those bills are more uniform in their costliness.

8 III. Response to Company Witness Janice Hager

9 Q: Please summarize Ms. Hager's response to your direct testimony.

A: In her rebuttal testimony, Ms. Hager responds to my criticisms of the
 minimum-system classification method by explaining the Company's
 rationale for adopting the minimum-system method for classifying
 distribution-grid costs in its COSS.³

14 Q: How does Ms. Hager describe the Company's rationale for adopting the 15 minimum-system method?

16 A: Ms. Hager explains that DEP is proposing to adopt the minimum-system 17 method in order to: (1) be consistent with the Company's use of the

³ Ms. Hager also points out that one of the fundamental flaws in minimum-system classifications in general that I identify in my direct testimony does not apply to the Company's particular application of the minimum-system method. Ms. Hager's rebuttal in this regard is correct, but does not alter my finding that minimum-system methods in general and the Company's method in particular are fundamentally flawed and result in cost classifications that are inconsistent with cost-causation principles.

minimum-system method in North Carolina; (2) address concerns regarding
 cost-subsidization within the residential class; and (3) improve price signals.⁴

Q: Is consistency between North Carolina and South Carolina a reasonable basis for adopting the minimum-system classification method?

A: No. The Company's practices in another state do not demonstrate that the
Company's proposal in this proceeding is reasonable. On the contrary, the
record in this proceeding shows that the Company's proposal is unreasonable
and supports the Commission's long-standing rejection of the minimumsystem method as contrary to cost-causation principles.

Q: What are the Company's concerns regarding cost-subsidization within the residential class?

12 Ms. Hager claims that low-usage customers are not paying their fair share of A: distribution-grid costs through the energy rate, based on a presumption that 13 there is a "minimum" or "customer-related" portion of such costs which is 14 not driven by customer load. According to Ms. Hager, DEP "had to install 15 some 'minimum' amount of distribution facilities" in order to satisfy every 16 customer's expectation that "the lights will come on when they flip the light 17 switch."⁵ Thus, by Ms. Hager's reasoning, every customer is equally 18 responsible for the costs incurred to install this "minimum" system and 19 20 therefore should contribute an equal share toward recovery of those costs 21 through the residential BFC.

⁴ Rebuttal Testimony of Janice Hager for Duke Energy Progress, LLC, Docket No. 2018-318-E, 5 (March 18, 2019).

⁵ *Id.*, 11-12.

Q: How do you respond to Ms. Hager's allegations regarding costsubsidization with the residential class?

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3 As I discussed in my direct testimony, the Company's claims regarding cost-A: subsidization within the residential class are misplaced because they are 4 based on the false premise that there is a "minimum" or "customer-related" 5 portion of distribution-grid costs which does not vary with load. Contrary to 6 7 Ms. Hager's description, utilities typically build out their distribution grids to 8 serve total household demand (as well as the demand from commercial and 9 industrial distribution customers connected to the distribution grid) not some hypothetical minimum demand from the flipping of a light switch. Thus, 10 DEP did not incur a "minimum" amount of distribution-grid costs to serve 11 12 customers at zero load and then incur additional costs to meet the total load 13 of those customers. Instead, the Company sized its distribution system, and 14 incurred the costs to build that system, based on an expectation regarding the total demand of all customers connected to the grid. In other words, the 15 Company's distribution-grid costs were driven by customer load, not by the 16 number of customers. 17

18 If distribution-grid costs are driven by customer load, then each 19 customer should contribute to recovery of all such costs in proportion to their 20 load. But, with the Company's proposal to recover a fabricated "minimum" 21 portion of those distribution-grid costs through the residential BFC, each 22 customer would contribute an equal amount toward recovery of a portion of 23 distribution-grid costs rather than contributing in proportion to their load. Consequently, low-usage customers would contribute more, and high-usage 24 customers less, than their fair share of distribution-grid costs under the 25 26 Company's proposal to triple the residential BFC.

Q: How do you respond to the Company's contention that use of the
 minimum-system method would improve price signals?

A: The opposite is true. Contrary to Ms. Hager's claim in this regard, the
Company's proposal to recover through the residential BFC those
distribution-grid costs erroneously classified as customer-related under the
minimum-system method would dampen price signals and discourage
economically efficient behavior.

8 As I discussed in my direct testimony, the Company's proposal to 9 recover distribution-grid costs through the residential BFC runs contrary to 10 established principles for designing cost-based rates since it would inappropriately shift recovery of costs driven by usage from the volumetric 11 12 energy rate to the fixed BFC. Shifting recovery of usage-driven costs from 13 the energy rate to the residential BFC would artificially suppress the price 14 signal provided by the energy rate and inappropriately reduce incentives to 15 control bills through conservation or investments in energy efficiency or distributed renewable generation. 16

Q: Does Ms. Hager respond specifically to your proposal for estimating a cost-based residential BFC?

A: Yes. In my direct testimony, I discussed why it would not be appropriate to
recover the costs of AMI meters and uncollectible costs through the
residential BFC. In response, Ms. Hager disagrees on the basis of the fact that
AMI meter and uncollectible costs are reasonably classified as customerrelated costs in the Company's COSS and therefore appropriately recovered
through the residential BFC.

Q: Do you dispute the Company's classification of AMI meter and
 uncollectible costs as customer-related for the purposes of allocating
 costs to customer classes in the Company's COSS?

A: No. However, I do not accept as reasonable the Company's formulaic use of
its COSS for rate-design purposes, as reflected in Ms. Hager's assertion that
AMI meter and uncollectible costs are appropriately recovered through the
residential BFC simply because such costs are classified as customer-related
in the COSS.

9 To the contrary, it would not be reasonable to recover AMI meter and 10 uncollectible costs through the residential BFC regardless of whether such 11 costs are appropriately classified as customer-related in the Company's 12 COSS. As I discussed in my direct testimony, recovery of such AMI meter 13 and uncollectible costs through the residential BFC would inappropriately 14 recover from low-usage customers more than their fair share of such costs.

15 IV. Response to Company Witness Steven B. Wheeler

Q: How does Mr. Wheeler respond to your testimony that distribution-grid
 costs classified as customer-related under the minimum-system
 approach are not appropriately recovered through the residential BFC?

A: Mr. Wheeler has dramatically revamped his testimony regarding the designof residential rates.

In his direct testimony, Mr. Wheeler proposed that all distribution-grid costs classified in the COSS as customer-related under the minimum-system approach be recovered through the residential BFC, and that the remaining distribution-grid costs classified as demand-related be recovered through residential energy rates. However, in his rebuttal testimony, Mr. Wheeler now proposes that DEP implement a residential demand charge in the next general
 rate proceeding that would recover all demand-related distribution-grid
 costs.⁶

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Q: Would it be appropriate to recover demand-related costs through a residential demand charge, as Mr. Wheeler proposes?

A: No. Recovery of demand-related costs through a residential demand charge
would dampen price signals for conservation, promote inefficient customer
behavior, and undermine customers' ability to control electricity costs.

9 Demand charges on a monthly bill are typically determined based on the customer's maximum demand, whenever that maximum occurs during the 10 11 month. In order to control monthly demand costs, customers would therefore 12 need to have detailed information regarding their load profiles for each day of the month as well as an in-depth understanding of which combination of 13 14 appliance- or equipment-usage gives rise to monthly maximum demands. Even with such information and knowledge, it would be difficult for a 15 residential customer to reduce demand charges, since even a single failure to 16 17 control load during the month would result in the same demand charge as if 18 the customer had not attempted to control load at all.

A demand charge would also provide little or no incentive for residential customers to take actions that reduce distribution-system costs. Distribution equipment costs typically are driven by the coincident peak load for all customers sharing the equipment. An individual customer is unlikely to reach their maximum demand at the same time as when the coincident peak on the distribution system occurs. Thus, a demand charge would

⁶ Rebuttal Testimony of Steven B. Wheeler for Duke Energy Progress, LLC, Docket No. 2018-318-E, 10 (March 18, 2019).

1 provide an incentive to a residential customer to control load at the time that 2 customer reaches their individual maximum demand, which does not 3 necessarily correspond to the time of peak load on the distribution system. In fact, a demand charge could provide a perverse incentive that increases 4 5 system costs, because some customers might respond to a demand charge by shifting loads from their own peak to the peak hour on the local distribution 6 7 system, thereby increasing their contribution to maximum or critical loads on 8 the local distribution system and further stressing the system during peak 9 periods.

10 Finally, shifting recovery of demand-related costs from the energy rate 11 to a demand charge would send the wrong energy price signal. Shifting 12 demand-related costs to a demand charge would lower the energy rate and 13 thereby perversely encourage increased energy consumption, some of which 14 might occur at times of peak loading on the distribution system – when energy conservation is most needed. Shifting costs from the energy rate to a 15 16 demand charge could therefore increase distribution system costs and offset 17 any (limited) benefits from a residential demand charge.

18 Severin Borenstein aptly summed up the shortcomings (and the 19 antiquated nature) of demand charges when he wrote: "It is unclear why 20 demand charges still exist."⁷

⁷ Severin Borenstein, "The Economics of Fixed Cost Recovery by Utilities," in *Recovery of Utility Fixed Costs: Utility, Consumer, Environmental and Economist Perspectives*, Lawrence Berkeley National Laboratory, 60 (2016), http://eta-publications.lbl.gov/sites/default/files/lbnl-1005742.pdf.

Q: Does Mr. Wheeler's new proposal in his rebuttal testimony to increase the residential BFC from \$8.29 to \$19.03, rather than to \$29.00, address your concerns?

A: No. As with its original proposal, the Company's new proposal to increase
the residential BFC to \$19.03 would inappropriately shift load-related costs
from the volumetric energy rate to the fixed customer charge, dampen price
signals to consumers for reducing energy usage, disproportionately and
inequitably increase bills for the Company's smallest residential customers,
and result in subsidization of larger residential customers' costs by customers
with below-average usage.

Accordingly, the Commission should reject the Company's new proposal to increase the residential BFC to \$19.03. Instead, I continue to recommend that the residential BFC be set at \$9.23 to reflect the cost to connect a residential customer. This outcome would be consistent with enduring cost-causation and rate-design principles and would protect lowincome customers from undue harm.

17 Q: Does this conclude your surrebuttal testimony?

18 A: Yes.

STATE OF SOUTH CAROLINA

BEFORE THE PUBLIC SERVICE COMMISSION

DOCKET NO. 2018-318-E

I certify that the following persons have been served with one (1) copy of Surrebuttal Testimony of Jonathan Wallach by electronic mail and/or U.S. First Class Mail at the addresses set forth below:

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This 25th day of March, 2019.

s/ Gudrun Thompson