

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

Application of Duke Energy Progress, LLC
For Adjustment of Rates and Charges
Applicable to Electric Service in North
Carolina

DOCKET NO. E-2 SUB 1219

BRIEF OF HARRIS TEETER LLC

Harris Teeter LLC (“Harris Teeter”) respectfully submits this Brief with the North Carolina Utilities Commission (“Commission”). Harris Teeter recommends that the Commission approve the Settlements agreed to by Harris Teeter, the Commercial Group and Duke Energy Progress, LLC (“DEP” or “the Company”) concerning the rate design for Rate SGS-TOU. **Harris Teeter also notes that it supports the portions of DEP’s Proposed Order that addresses the SGS-TOU rate design and the proposed Multi-Site Aggregation Rate.**

1. Rate Design For Rate SGS-TOU

The Harris Teeter and Commercial Group Settlements Agreeing To A Compromise Concerning the Rate Design For Rate SGS-TOU with DEP Should Be Approved.

DEP’s SGS-TOU rate schedule is a time-of-use-rate schedule that is generally available to customers with an initial Contract Demand between 30 kW and 1,000 kW. The current SGS-TOU rate schedule consists of a basic customer charge, summer and winter on-peak demand charges, an off-peak excess demand charge, and on-peak and off-peak energy charges.¹ In his Direct Testimony, Harris Teeter witness Justin Bieber used the Company’s cost-of-service study in order to perform an analysis comparing the SGS-TOU charges to underlying costs in DEP’s original filing in this case. Mr. Bieber concluded that

¹ Tr. vol. 15, 230.

DEP’s proposed rate design for the SGS-TOU rate schedule significantly under-recovered the demand-related charges while over-recovering the energy-related charges relative to the underlying costs based on the Company’s proposed 1 coincident peak (“1 CP”) cost-of-service study.² This results in a significant misalignment between the rate design charges and underlying cost causation. In fact, DEP’s originally proposed on-peak energy charge was 85% greater than the embedded unit cost for the SGS-TOU schedule while the proposed off-peak energy charge was 50% greater than the unit cost. At the same time, DEP’s originally proposed summer on-peak demand charge was only 64% of the embedded unit cost, while the non-summer on-peak demand charge was just 54% of the embedded unit cost.³ Table JDB-2 (from Mr. Bieber’s Direct Testimony) below compares the Company’s originally proposed charges to the embedded unit costs.

Table JDB-2
DEP Proposed Charges Relative to Embedded Unit Costs⁴
For the SGS-TOU Rate Schedule

Charge	Proposed Rate	Embedded Unit Cost	Charge/Cost
Basic Customer Charge	\$35.50	\$41.06	86.5%
Energy Charges On-peak	\$0.07100	\$0.03834	185.2%
Energy Charges Off-peak	\$0.05754		150.1%
Demand Charges Summer	\$11.58	\$18.15	63.8%
Demand Charges Non-Summer	\$9.73		53.6%

The Table above shows that the rate design for SGS-TOU that DEP originally proposed in this case would have exacerbated the existing misalignment between SGS-TOU charges and underlying embedded costs. Based on the Company’s 1 CP cost-of-service study, the proposed demand related costs for the total Medium General Service rate class (“MGS”)⁵ increase by 25.8%⁶ in this case, while the energy

² Tr. vol. 15, 232.

³ Tr. vol. 15, 232.

⁴ See Tr. vol. 15, 232. Embedded unit costs for the SGS-TOU rate schedule based on the Company’s 1 CP cost-of-service study provided in Duke Energy Progress’ response to Harris Teeter Data Request No. 3-1, reproduced in Exhibit JDB-1.

⁵ The MGS rate class includes the SGS-TOU rate schedule. However, Duke Energy Progress did not provide a unit cost study with the SGS-TOU rate schedule broken out at the proforma adjusted present rates cost-of-service.

⁶ Duke Energy Progress Response to E1 Item #45 1CP 2018 Adj Pres Unit Costs and 1CP 2018 Adj Prop Unit Costs. Proposed demand unit cost \$19.05/kW ÷ current demand unit cost \$15.14/kW – 1 = 25.8%.

related costs only increase by 2.4%.⁷ However, the Company's originally proposed SGS-TOU rate design would have increased both the energy and demand charges by approximately 9.9%. Increasing the energy and demand rate elements by the same percentage, when the overwhelming majority of the proposed increase in costs is demand related, would result in rates that are further misaligned with the underlying cost-causation relative to the current rate design.⁸

As explained by Mr. Bieber, if a utility proposes a demand charge that is below the cost of demand, it is going to seek to recover its class revenue requirement by over-recovering its costs in another area, most typically through levying an energy charge that is above unit energy costs, which is the case with DEP's originally proposed rate design. For a rate schedule, such as SGS-TOU, when demand charges are set below cost, and energy charges are set above cost, those customers with relatively higher load factors are required to subsidize the lower load factor customers within the class.⁹ Given this analysis, Mr. Bieber recommended modifications to the proposed SGS-TOU rate design that would improve the alignment between the rate components and the underlying costs while employing the principle of gradualism and mitigating intra-class rate impacts.¹⁰ Mr. Bieber's concerns regarding the Company's originally proposed rate design for SGS-TOU were shared by the Commercial Group which also represents SGS-TOU customers.

During settlement discussions with Harris Teeter and the Commercial Group, DEP agreed to address Harris Teeter's and the Commercial Group's concern regarding additional intra-class subsidies being levied on higher load factor SGS-TOU customers. In separate agreements filed on June 8, 2020 (Harris Teeter Settlement) and June 9, 2020 (Commercial Group Settlement), DEP agreed that (1) the SGS-TOU on-peak and off-peak energy charges shall be increased by a percentage amount that is equal to half of the overall percentage increase for the SGS-TOU rate schedule; and (2) the demand charges for

⁷ Id. Proposed energy unit cost 3.85 ¢/kW ÷ current energy unit cost 3.76 ¢/kW – 1 = 25.4%.

⁸ Tr. vol. 15, 233.

⁹ Tr. vol. 15, 235.

¹⁰ Tr. vol. 15, 236.

the SGS-TOU rate schedule shall be adjusted by the amount necessary to recover the final SGS-TOU revenue target.¹¹ The Harris Teeter and Commercial Group Settlements also provide that the percentage base rate increase for Schedule SGS-TOU and Schedule MGS shall be the same, with the caveat that DEP shall have the right to adjust the rates for the CSE and CSG rate schedules more than the percentage base rate increase for Schedule MGS as may be necessary to address the Public Staff's concerns.¹² These agreements are consistent with Mr. Bieber's recommendation of a more gradual movement toward aligning rates with the underlying costs.

In his Supplemental Rebuttal Testimony, filed jointly with Mr. Huber, DEP witness Mr. Pirro explained that the recommendations contained in the Settlements regarding SGS-TOU are cost-based. Mr. Pirro testified that DEP's unit cost study indicates that the demand charges for SGS-TOU should be \$18.15 per kW and energy charges should be 3.835 cents per kWh. Current rates on Schedule SGS-TOU-62 are \$11.28 per kW and 5.905 cents per kWh for on-peak usage and 4.643 cents per kWh for off-peak usage. Mr. Pirro concluded that the changes to the SGS-TOU rate design agreed to in the Settlements with Harris Teeter and the Commercial Group are cost-based and reasonable.¹³

Mr. Pirro also clarified that the rate design changes proposed in Sections 3 and 4 of the Harris Teeter and Commercial Group Stipulations would not constrain the ability to conduct a future rate design study. Mr. Pirro explained that the Settlement provisions apply only to the SGS-TOU rates proposed in this rate case and do not bind the Company to any particular rate design structure in a future rate case and do not limit the Company's ability to study alternative rate designs.¹⁴

No party objected to any of the terms of the Harris Teeter and Commercial Group Settlements until September 16, 2020, when Public Staff filed the Second Supplemental Testimony of Jack Floyd. Mr.

¹¹ Harris Teeter Stipulation, § 3; Commercial Group Stipulation, § 3.

¹² Harris Teeter Stipulation, § 4; Commercial Group Stipulation, § 4.

¹³ Tr. vol. 11, 1166.

¹⁴ Tr. vol. 11, 1165.

Floyd testified that he does not agree with all of the rate design terms of the Harris Teeter and Commercial Group Settlements “at this time” stating that “making discrete changes to individual rate schedules constrains the ability to conduct a comprehensive study of rates and rate design in the future.”¹⁵ Mr. Floyd stated that it is premature and counter-productive to begin redesigning rates and the terms of service under specific rate schedules, without having a full understanding of the rationale for the change and the impact on other rate schedules and revenues.

Although Mr. Floyd initially opposed the Harris Teeter and Commercial Group Settlements, his objections have softened after further clarification by the supporting parties. During cross-examination, Mr. Floyd noted that he would be willing to “concede a little bit on the cautiousness of” his earlier stance that the Settlements might constrain Staff’s proposed comprehensive rate study. Mr. Floyd stated:

As these days have progressed and the testimony delivered before the Commission in these hearings, taking the Commercial Group and the Harris Teeter settlements in terms of the SGS-TOU for Progress, the Public Staff is optimistic that, based on the Company’s testimony, that none of these conditions are going to constrain a future rate study. The Public Staff is receptive to that testimony and would be willing to, at some point, concede a little bit on the cautiousness of my earlier stance. I think it was Mr. Pirro that said, you know, that the study, they perceive this as a blank slate. And that’s acceptable to the Public Staff. That really is what we were hoping to get out of such a comprehensive study.

With respect to the merits of the Settlements themselves, Mr. Floyd appears to be generally supportive of the Settlements. Mr. Floyd stated at hearing:

In terms of the particulars of the settlements in terms of the on- and off-peak rates, I think it was Mr. Pirro who also testified that the values assigned to those rates would be more cost-based in nature than simply making an across-the-board percentage change as a result of the case. And the Public Staff supports that. So my cautiousness is a little more tempered in this case.

In sum, it appears that Mr. Floyd’s initial objection to the Harris Teeter and Commercial Group Settlements has changed since he filed his Second Supplement Testimony. The SGS-TOU rate design recommended in the Harris Teeter and Commercial Group Settlements with DEP should be approved. As

¹⁵ Tr. vol. 15, 1005-06

explained by Mr. Bieber, these modifications will improve the alignment between the rate components and the underlying costs for SGS-TOU while employing the principle of gradualism and mitigating intra-class rate impacts.

2. Multi-site Aggregate Commercial Rate

Harris Teeter's Proposed Multi-Site Aggregate Commercial Rate Should Be Considered In The Comprehensive Rate Study Proposed By Commission Staff.

In his Direct Testimony Mr. Bieber recommended that DEP and the Commission consider implementing a multi-site commercial rate aggregation program that would allow eligible customers with multiple service locations to aggregate their demands for purposes of power and transmission billing. For a multi-site aggregation program, the billing demand is measured as the highest hourly demand occurring simultaneously across each of a customer's participating locations, thereby measuring billing demand for the totality of the customer's participating sites as if it were a single load for billing purposes. This is described as conjunctive demand billing and should only apply to a customer's generation and transmission service. The distribution portion of the bill should be calculated using demand billing determinants established separately at each location.¹⁶

As Mr. Bieber explained this type of aggregation properly allows a multi-site customer to capture the diversity within its loads for billing purposes, specifically in the determination of billing demand. By treating the multiple loads of a single customer as a single entity for the purpose of measuring the amount of power and transmission service provided to the customer, the customer's load is treated in a manner that is comparable to the treatment of a single-site customer with the same aggregate load shape. It is also comparable to the way the customer's load would be viewed in a competitive market.¹⁷

Each facility owned by a multi-site customer causes unique distribution costs and therefore it is appropriate to recover those costs based on the peak demand of each individual facility. But that is not

¹⁶ Tr. vol. 15, 252.

¹⁷ Tr. vol. 15, 252-253.

the case for fixed production and transmission costs. At the power supply and transmission level, it makes no difference whether 5 MW in a given hour is going to a single-site customer with a 5 MW load or to a multi-site customer with five facilities taking 1 MW each. The cost to produce and transmit the 5 MW in that hour is not materially different.¹⁸

For a multi-site customer, it would not be unusual for each of its sites to be peaking at a different hour in each month. Under the Company's current rate structures, this means that the customer's cumulative billing demand for fixed production costs would exceed the customer's actual aggregated peak demand measured on an hour-by-hour basis (as if it were a single-site customer). In other words, under the current rate structure, the multi-site customer might be billed, say, for 5.5 MW of fixed production demand based on the sum of the individual peaks of each of its sites (occurring at different hours), whereas in fact, the customer's actual aggregate demand for fixed production demand in any hour might be no greater than 5 MW. A conjunctive demand rate can correct for this upward bias in the billing demand that would otherwise be charged to a multi-site customer by aggregating the customer's billing demands for peak demand measurement purposes. With the proper metering in place, this correction simply charges multi-site customers for the fixed production service that they actually use and places them on an equal footing with single-site customers. Under a well-designed conjunctive demand rate, a multi-site customer that has the same aggregate demand for power supply as a single-site customer pays exactly the same rate and dollar amount for power supply as that single-site customer.¹⁹

Several other jurisdictions have acknowledged the logic of conjunctive billing by approving rates similar to the multi-site rate proposed by Harris Teeter in this case; notably in Arizona,²⁰ Michigan²¹ and

¹⁸ Tr. vol. 15, 253.

¹⁹ Tr. vol. 15, 253-254.

²⁰ Arizona Public Service Company ("APS") has an Aggregation Rate Discount that was approved by the Arizona Corporation Commission in Docket No. E-01345A-16-0036. The APS Aggregation Rate Discount is a provision included in APS' commercial Rates E-32 L and E-32TOU L.

²¹ Consumers Energy in Michigan has an approved Aggregate Peak Demand Service Provision. This program is available to any customer with 7 accounts or more who desires to aggregate its On-Peak Billing Demands for power supply billing purposes.

Washington.²² Staff's proposed comprehensive rate study is the perfect venue for the Commission to explore the feasibility and reasonableness of such a program. Harris Teeter recommends that the Commission order the Company to study a multi-site rate as a part of the comprehensive rate study for possible implementation in DEP's next general rate case.

DATED this 4th day of December, 2020.

/s/ Kurt J. Boehm

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²² The Washington Utilities and Transportation Commission approved a multi-site aggregation tariff proposed by Puget Sound Energy ("PSE") in its most recent rate case. PSE's "Conjunctive Demand Service Option Pilot Program" will allow customers with multiple service locations to pay a demand charge based on the coincidental peak of all their metered locations rather than the arithmetic sum of the demand charges (in dollars) resulting from each service location's non-coincidental peak demand. PSE's proposal received broad support from customers and the Washington Commission Staff and was approved on July 8, 2020. Washington Utilities and Transportation Commission, Docket UE-190529, Order of July 8, 2020, at 168-174.

CERTIFICATE OF SERVICE

I hereby certify that true copy of the foregoing was served by electronic mail (when available), or regular U.S. Mail the 4th day of December 2020 upon the parties listed on the Certificate of Service.

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