ERRATA

To: Kimberley A. Campbell, Chief Clerk

From: Kim Mitchell, Court Reporter

CC:

Date: October 29, 2020

Re: Duke Energy Carolinas, LLC

Docket Number E-7, Sub 1214, Volume 16

In the DEC-Specific hearing, transcript volume 16 at page 314, Chair Mitchell made a statement to copy into the record intervenor witness testimony that was admitted during the consolidated hearing. Harris Teeter's witness Justin Beiber's testimony was inadvertently omitted from the transcript.

Also, Mr. Beiber's exhibits attached to his prefiled direct testimony were identified in the consolidated portion of the Duke Energy rate case and are admitted into the record with his prefiled testimony in volume 16. Therefore, Exhibits JDB-1 through JDB-4 have been marked appropriately.

Both Mr. Beiber's prefiled direct testimony and exhibits are attached.

BEFORE THE NORTH CAROLINA UTILITY COMMISSION

Application of Duke Energy Carolinas, LLC For Adjustment of Rates and Charges Applicable to Electric Service in North Carolina	)))))	DOCKET NO. E-7 SUB 1214

DIRECT TESTIMONY OF

JUSTIN BIEBER

ON BEHALF OF

HARRIS TEETER LLC

FEBRUARY 18, 2020

DIRECT TESTIMONY OF JUSTIN BIEBER

Introduction

Q. Please state your name and business address.

A. My name is Justin Bieber. My business address is 215 South State Street, Suite 200, Salt Lake City, Utah, 84111.

Q. By whom are you employed and in what capacity?

A. I am a Senior Consultant for Energy Strategies, LLC. Energy Strategies is a private consulting firm specializing in economic and policy analysis applicable to energy production, transportation, and consumption.

Q. On whose behalf are you testifying in this proceeding?

A. My testimony is being sponsored by Harris Teeter LLC. ("Harris Teeter"). Harris Teeter is one of the largest retail grocers in North Carolina and operates more than 87 facilities that are served by Duke Energy Carolinas, LLC ("Duke Energy Carolinas" or the "Company"). Combined, Harris Teeter facilities purchase approximately 225 million kWh annually from Duke Energy Carolinas.

Q. Please describe your professional experience and qualifications.

A. My academic background is in business and engineering. I earned a Bachelor of Science in Mechanical Engineering from Duke University in 2006 and a Master of Business Administration from the University of Southern California in 2012. In 2017, I completed Practical Regulatory Training for the Electric Industry sponsored by the New Mexico State University Center for Public Utilities and the

National Association of Regulatory Utility Commissioners. I am also a registered Professional Civil Engineer in the state of California.

I joined Energy Strategies in 2017, where I provide regulatory and technical support on a variety of energy issues, including regulatory services, transmission and renewable development, and financial and economic analyses. I have also filed and supported the development of testimony before various different state utility regulatory commissions.

Prior to joining Energy Strategies, I held positions at Pacific Gas and Electric Company as Manager of Transmission Project Development, ISO Relations and FERC Policy Principal, and Supervisor of Electric Generator Interconnections. During my career at Pacific Gas and Electric Company, I supported multiple facets of utility operations, and led efforts in policy, regulatory, and strategic initiatives, including supporting the development of testimony before and submittal of comments to the FERC, California ISO, and the California Public Utility Commission.

Q. Have you testified previously before this Commission?

A. Yes, I testified in Duke Energy Progress' 2017 general rate case, Docket No. E-2, Sub 1142.

Q. Have you filed testimony previously before any other state utility regulatory commissions?

A. Yes. I have testified before the Colorado Public Utilities Commission, the Indiana Utility Regulatory Commission, the Kentucky Public Service Commission, the Michigan Public Service Commission, the Montana Public Service

Commission, the Public Utilities Commission of Ohio, the Public Utility Commission of Oregon, the Utah Public Service Commission, and the Public Service Commission of Wisconsin.

Overview and Conclusions

Q. What is the purpose of your testimony in this proceeding?

A. My testimony addresses Rate design for the OPT-V small secondary rate schedule ("OPT-VSS") and the Company's proposal to defer Grid Improvement Plan costs in a regulatory asset.

Q. Please summarize your recommendations to the Commission.

Duke Energy Carolinas' rate design for the OPT-VSS rate schedule understates demand-related charges while overstating the energy charges relative to the underlying cost components. In fact, the proposed rate design in this case would worsen the misalignment between the OPT-VSS rates and the Company's cost of service relative to current rates. I recommend modifications to the proposed OPT-VSS rate design that will improve the alignment between the rate components and the underlying costs while employing the principle of gradualism and mitigating intra-class rate impacts.

The Commission should reject the Company's proposal to defer certain investment costs associated with Duke Energy Carolinas' Grid Improvement Plan in a regulatory asset. The proposed deferral is unnecessary and future recovery of the deferred costs would amount to single-issue ratemaking that does not address a compelling public interest or meet the generally accepted criteria for this type of regulatory treatment. Recovering costs in this manner would provide expanded

cost recovery for Grid Improvement Plan costs without consideration of whether the Company could experience offsetting decreases in expenses or increases in revenues in other areas.

OPT-VSS Rate Design

Q. Please describe Duke Energy Carolinas' rate schedule OPT-VSS.

A. Duke Energy Carolinas' OPT-V rate schedule is a time of use rate class that provides separate rates for customers of varying size and delivery voltage. The OPT-VSS rate schedule is available to small secondary customers with a delivery voltage less than or equal to 600 volts and a maximum summer on-peak demand that is less than or equal to 1,000 kW. The current OPT-VSS rate schedule consists of a basic facilities charge, summer and winter on-peak demand charges, an economy demand charge, and on-peak and off-peak energy charges.

Q. Please explain how Duke Energy Carolinas has proposed to modify the OPT-VSS rates in this proceeding.

A. According to Duke Energy Carolinas' rate design witness Michael Pirro, the Company has designed its commercial and industrial rates utilizing a *uniform percentage increase method*, which seeks to allocate the additional cost recovery across the various components of each schedule. Mr. Pirro claims that this method maintains the overall structure of the rate without distortion relative to the historical rate design. The energy prices for Schedule OPT-V were adjusted to reflect the overall increase for each OPTV size/voltage category. For the OPT-VSS rate schedule, the Company increased the energy charges by roughly 9%, consistent with the overall increase for the rate schedule. Then the demand rates were adjusted

as necessary to recover the proposed revenue requirement for each size/voltage category. According to Mr. Pirro, slightly more emphasis is given to the winter demand rates because the difference between summer and winter marginal cost has narrowed over the past years.[1] Table JDB-1 below summarizes the Company's present and proposed rates for schedule OPT-VSS at the Company's proposed revenue requirement and revenue allocation.

Table JDB-1
DEC Present and Proposed OPT-VSS Rates

Charge	Present Rate	Proposed Rate	Increase/(Decrease)
Facilities Charge	$32.17	$32.17	0.0%
Summer On-Peak Demand Charge	$15.8246	$17.0117	7.5%
Winter On-Peak Demand Charge	$8.6426	$9.6158	11.3%
Economy Demand	$1.6141	$2.2815	41.3%
On-Peak Energy Charge	$0.06090	$0.06642	9.1%
Off-Peak Energy Charge	$0.02972	$0.03250	9.4%

Q. The OPT-VSS rate schedule is a time of use rate schedule. Please explain why this is significant.

A. Time of use rates should be designed to send proper price signals to customers to incentivize the efficient use of grid assets. Customers who choose a time-of-use rate are more likely to be responsive to price signaling. Therefore, it is even more important for time of use rate designs to align with cost causation, so that customers who choose to be on a time of use rate are rewarded for using the grid more efficiently. The most efficient use of grid assets is incentivized if energy and demand charges are aligned with their underlying costs.

[1] Direct Testimony of Michael J. Pirro, pp. 16-17.

Q. Can you please comment regarding the premium between the on-peak and off-peak energy rates?

A. The premium between the on-peak and off-peak energy charges is equal to the difference between the on-peak energy charge and the off-peak energy. This on-peak premium results in higher energy rates for customers during periods of high demand. Sometimes, a higher on-peak energy charge can function as a proxy for a demand charge by collecting more revenue for usage during periods of high demand and disincentivizing use during those time periods.

Q. What is your assessment of Duke Energy Carolinas' proposed rate design for the OPT-VSS rate schedule?

A. I fundamentally disagree with the proposed use of a *uniform percentage increase method* to design the commercial and industrial rates in this case because it is not consistent with the cost causation drivers. Under this method, Duke Energy Carolinas proposes to increase the rate OPT-VSS *energy* charges by more than 9%, while according to the Company's own unit cost of service study, the proposed *energy-related* costs for rate OPT-VSS increased by less than 2%.[2]

Duke Energy Carolinas' proposed rate design for the OPT-VSS rate schedule under-recovers the demand-related charges while over-recovering the energy-related charges relative to the underlying costs. And, relative to the currently effective rates, the proposed OPT-VSS rate design would actually

[2] Rate OPT-VSS Present energy costs $214.5M ÷ Rate OPT-VSS Proposed energy costs $218.8M = 1.95%. Values from Duke Energy Carolinas E-1 Item 45e DEC-COS-NC-SCP-Unit Cost-PF and PR-12 ME 12-31-18.

represent a departure away from cost-based demand and energy charges, rather than providing gradual movement towards cost-based rates.

Q. Please explain how you performed your analysis to compare the OPT-VSS charges to the underlying costs?

My analysis compares the total OPT-VSS revenues from the customer, energy, and demand related charges to the cost of service for each of those corresponding classifications, as provided by the Company's proposed summer coincident peak cost of service study. As I noted above, the on-peak energy charge premium can function similarly to a demand charge. To be conservative for purposes of this analysis, I considered all of the revenues produced from the on-peak energy charge premium to be *demand*-related. To that end, I calculate the OPT-VSS energy-related revenues by multiplying the *off-peak* energy charge by the total energy usage billing determinant kWh for both on-peak and off-peak usage. I then calculate the demand revenues by adding the product of the on-peak energy charge *premium* and the on-peak energy billing determinant kWh to the sum of the revenues from the summer and winter on-peak demand charges. The customer-related revenues are simply the expected revenues from the basic facilities charge.

Based on this conservative analysis and the Company's own cost of service study, I determine that the present energy revenues currently recover about 107% of the energy related costs while the present demand revenues recover 93% of the demand related costs. However, the *proposed* energy revenues would recover more than 115% of the energy related costs while the *proposed* demand revenues would

only recover 89% of the demand related costs. Exhibit JDB-1 illustrates relationship between the OPT-VSS rate schedule revenues relative and cost of service by classification at Duke Energy Carolinas' current and proposed rates. The results are summarized in Table JDB-2 below.

Table JDB-2
DEC Current and Proposed Charges Relative to Costs
For the OPT-VSS Rate Schedule

Classification	Present Rev/Costs	DEC Proposed Rev/Costs
Customer	163.1%	143.4%
Demand	93.2%	89.2%
Energy	107.4%	115.2%
Total	100.0%	100.4%

Q. From a customer's perspective, why should it matter if Duke Energy Carolinas proposes a demand charge that does not fully recover its demand-related costs?

A. 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 Duke Energy Carolinas' proposed rate design. For a given rate schedule such as OPT-VSS, 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.

Q. How do you define higher load factor customers?

A. For purposes of this discussion, I use this term to refer to customers whose load factors are greater than the average for the rate schedule.

Q. Why is it important for rate design to be representative of underlying cost causation?

A. Aligning rate design with underlying cost causation improves efficiency because it sends proper price signals. For example, setting a demand charge below the cost of demand understates the economic cost of demand-related assets, which in turn distorts consumption decisions, and calls forth a greater level of investment in fixed assets than is economically desirable.

At the same time, aligning rate design with cost causation is important for ensuring equity among customers, because properly aligning charges with costs minimizes cross-subsidies among customers. As I stated above, if demand costs are understated in utility rates, the costs are made up elsewhere — typically in energy rates. When this happens, higher-load-factor customers (who use fixed assets relatively efficiently through relatively constant energy usage) are forced to pay the demand-related costs of lower-load-factor customers. This amounts to a cross-subsidy that is fundamentally inequitable.

Q. Does the Company recognize the importance of aligning rate design with the underlying costs?

A. Yes, it does. According to Mr. Pirro, setting rates that are aligned with the underlying cost minimizes cross-subsidization within a rate class and provides appropriate price signals to customers regarding the true cost impact of their usage.[3]

Mr. Pirro also explains that the Company's unit cost study indicates that it is appropriate to raise the monthly Basic Facilities Charge to better reflect

[3] Direct Testimony of Michael J. Pirro, p. 11.

customer-related costs, because to do otherwise would result in customer cross-subsidization. Therefore, he explains that the Company would normally propose a Basic Facilities Charge for all rate classes that would recover approximately 50% of the difference between the current rate and the full unit-cost to serve the customer groups. According to Mr. Pirro, this method would reduce subsidization while moderating the rate impact on certain customers. However, the Company has not proposed to move the Basic Facilities Charge closer to the cost-based rate in this proceeding due to past concerns raised by stakeholders.[4]

Q. What is your recommendation with respect to the OPT-VSS rate design?

A. Ideally, the demand-related charges, energy-related charges, and facilities charges would be aligned with the respective underlying cost components. However, in some circumstances, full movement towards cost-based rates in a single step should be tempered in order to mitigate potential intra-class rate impacts and take into consideration the well-accepted rate making principle of gradualism. Therefore, I am proposing moderate changes to the proposed OPT-VSS energy and demand charges that will make some progress towards aligning the rate design with the underlying costs while also mitigating the intra-class rate impacts that would result from a more significant movement towards cost-based rates at this time. In fact, my proposed rate design would be consistent with the Company's normal practice, as I describe above, of adjusting rates to recover approximately 50% of the difference between the current rate and the full unit-cost to serve the customer

[4] Id, pp. 11-12.

groups. This approach provides a reasonable balance between reducing inter-class subsidies and moderating rate impacts.

I recommend that the OPT-VSS off-peak energy charge be modified so that it is equal to the currently effective off-peak energy rate. I am not recommending any changes to the Company's proposed on-peak premium, which the Company has proposed to increase slightly in this case. Maintaining the Company's proposed on-peak premium results in an increase to the on-peak energy charge of 4.5% relative to the currently effective rate. I then increase the proposed summer and winter on-peak demand charges on a pro rata basis so that my proposed rate design is revenue neutral relative to the Company's proposed revenue requirement and revenue allocation. I am not proposing any changes to the facilities charge or the economy demand charge. The revenue verification for this rate design is presented in Exhibit JDB-2. The proposed rates are summarized in Table JDB-3 below.

Table JDB-3
DEC and Kroger Proposed OPT-VSS Rates
At DEC's Proposed Revenue Requirement

Charge	Present Rate	DEC Proposed Rate	Kroger Proposed Rate
Facilities Charge	$32.17	$32.17	$32.17
Summer On-Peak Demand Charge	$15.8246	$17.0117	$18.7671
Winter On-Peak Demand Charge	$8.6426	$9.6158	$10.6080
Economy Demand	$1.6141	$2.2815	$2.2815
On-Peak Energy Charge	$0.06090	$0.06642	$0.06364
Off-Peak Energy Charge	$0.02972	$0.03250	$0.02972

Q. How does your recommended rate design improve the alignment between charges and the underlying cost components?

A. As I describe above, the Company's proposed rate design for the OPT-VSS rate schedule under-recovers the demand-related charges while over-recovering the energy-related charges. My proposed rate design improves the alignment between

the demand and energy revenues and costs by offsetting a slight decrease to the *proposed* energy charges with a corresponding increase to the on-peak demand charges. My recommended modification does not result in fully cost-based rates, but it does make a step in the right direction towards improving the alignment between the charges and underlying costs. In fact, at the Company's proposed revenue requirement, my recommended rate design would only increase the proportion of demand revenues relative to cost from 93.2% to 96.3%. At the same time, it would decrease the energy revenues relative to cost from 107.4% to 105.3%. This moderation is an intentional component of my proposal that mitigates the intra-class rate impacts that may result from a more significant movement towards cost at this time. The alignment between charges and costs for my recommended OPT-VSS rate design at the Company's proposed revenue requirement are demonstrated in Exhibit JDB-3. Table JDB-4 below summarizes the results and provides a comparison relative to Duke Energy Carolinas' proposed rate design.

Table JDB-4
DEC and Kroger Proposed Charges Relative to Costs
For the OPT-VSS Rate Schedule at DEC's Proposed Revenue Requirement

Classification	Present Rev/Costs	DEC Proposed Rev/Costs	Kroger Proposed Rev/Costs
Customer	163.1%	143.4%	143.4%
Demand	93.2%	89.2%	96.3%
Energy	107.4%	115.2%	105.3%
Total	100.0%	100.4%	100.4%

Q. Have you prepared a rate impact analysis of your recommended changes to OPT-VSS rate design?

A. Yes. My rate impact analysis is presented in Exhibit JDB-4 and illustrates the total bill impacts to customers that would result from my recommended OPT-VSS rate design at the Company's proposed revenue requirement. In contrast to the results of the Company's proposed uniform percentage increase method, the bill impacts vary by up to 4.0% for the various customer profiles of varying load factors that I have analyzed.

Q. Please explain why the customer load profiles that you analyzed in Exhibit JDB-4 differ from the customer load profiles analyzed by the Company for this purpose.

A. The customer load profiles that the Company utilized to assess the OPT-VSS rate impacts are not representative of the OPT-VSS class of customers. The Company's analysis utilizes customer load profiles with Billing Demands between 75 kW and 10,000 kW, with corresponding monthly energy usage that results in load factors[5] equal to 27% or 55%. However, the OPT-VSS rate schedule is only available to customers with maximum loads less than 1,000 kW and the average load factor for the class is 62%.

I have selected customer load profiles for my bill impact analysis with a monthly billing demands at either 85 kW or 500 kW with corresponding load factors that range from 40% to 82%. These profiles assess a range of customer loads that is generally centered around the average usage characteristics for the

[5] Load factor based on billing demand = energy usage ÷ billing demand ÷ 730 hr/month.

class and wide enough to provide visibility to the varying degree of impacts to both high and low load factor customers.

Q. Your proposed rate design results in a slightly smaller rate impact on higher-load-factor customers than lower-load-factor customers. Is this a reasonable result?

A. Yes, it is a reasonable result. My proposed rate design reflects a cost-based difference while providing gradual movement towards cost-based rates. Duke Energy Carolinas' proposed rate design contains a misalignment between the underlying costs and charges based on its own cost of service study, which results in an intra-class subsidy from higher-load-factor customers to lower-load-factor customers. As I stated above, I am not proposing full movement towards cost-based rates in this case. Instead, my proposed rate design makes *gradual* movement towards aligning rates with cost causation and reduces, but does not eliminate, the existing intra-class subsidy. By gradually reducing this intra-class subsidy, lower-load-factor customers will experience slightly greater rate increases than higher-load-factor customers. This is a reasonable result because it strikes a balance between two important rate-making principles – improving the alignment between rates and the underlying cost components while employing gradualism.

Q. Your proposed OPT-VSS rate design was calculated using the Company's proposed revenue requirement. How should your proposed rate design be implemented if the Commission adopts a base rate revenue requirement that is different than Duke Energy Carolinas' request?

A. To the extent that the Commission approves a revenue target for the OPT-VSS rate schedule that is different than that proposed by Duke Energy Carolinas, I recommend that the summer and winter on-peak demand charges and the on-peak and off-peak energy charges that I have proposed each be reduced by an equal percentage in order to recover the target revenue requirement.

Grid Improvement Plan Accounting Deferral

Q. Please describe Duke Energy Carolinas' proposal to recover costs related to the Grid Improvement Plan investments.

A. Company witness Jane McManeus explains that the proposed new rates in this proceeding include recovery of Grid Improvement Plan expenditures that are included in the Test Period, as well as supplemental updates for post Test Period plant additions. In addition, the Company is requesting permission to defer costs related to its Grid Improvement Plan, that are not included in this case, in a regulatory asset for cost recovery consideration in future general rate cases. The Grid Improvement Plan is a three-year plan spanning calendar years 2020 through 2022.[6]

[6] Direct Testimony of Jane L. McManeus, p. 37.

Q. What specific costs does the Company propose to defer?

A. Ms. McManeus explains that there are thirteen Distribution programs, three Transmission programs, and five Enterprise programs included in the Grid Improvement Plan. The Company is requesting deferral of North Carolina retail's share of depreciation on capital investments, return on capital investments (net of accumulated depreciation) at the Company's weighted average cost of capital, operations and maintenance expense related to the installation of equipment, property tax related to the capital investments, and a return of the balance of costs deferred at the Company's weighted average cost of capital.[7]

Q. What is your assessment of Duke Energy Carolinas' proposal to defer costs related to its Grid Improvement Plan investments?

A. The proposed deferral is unnecessary and the creation of a regulatory asset to recover these deferred costs would amount to single-issue ratemaking that does not address a compelling public interest or meet the generally accepted criteria for this type of regulatory treatment.

Q. What is single-issue ratemaking?

A. Single-issue ratemaking occurs when utility rates are adjusted in response to a change in a single cost or revenue item considered in isolation. It ignores the multitude of other factors that otherwise influence rates, some of which could, if properly considered, move rates in the opposite direction from the single-issue change.

[7] Id, p. 38.

Setting rates based on a single cost or revenue item runs contrary to the basic principles of traditional utility regulation. When regulatory commissions determine the appropriateness of a rate or charge that a utility seeks to impose on its customers, the standard practice is to review and consider all relevant factors, rather than just a single factor. To consider some costs in isolation might cause a commission to allow a utility to increase rates to recover higher costs in one area without recognizing counterbalancing savings in another area. Alternatively, a single revenue item considered in isolation might cause a decrease in rates without recognizing counterbalancing cost increases in other areas. For these reasons, single-issue ratemaking, *absent a compelling public interest*, is generally not sound regulatory practice.

Q. Are there certain principles that should be evaluated to determine whether the adoption of single-issue cost recovery is warranted?

A. Yes, there are some generally accepted criteria that can be used to determine the appropriateness single-issue cost recovery mechanisms. Generally, an appropriate pass-through of costs, such as the one contemplated by the Company to result from the proposed deferral of Grid Improvement Plan costs, should meet *all* three of these criteria:

1) The anticipated costs or revenues are subject to significant volatility from year to year,
2) The anticipated costs or revenues are not reasonably controllable by management, and

3) The anticipated costs or revenues are substantial enough to have a material impact on the utility's revenue requirement and financial health between rate cases.

Q. Does Duke Energy Carolinas' proposed deferral meet these three criteria?

A. No, it does not. The Grid Improvement Plan costs proposed to be deferred do not appear to be volatile in nature or outside the control of the Company. Investing in and maintaining the safety, reliability, and integrity of the distribution and transmission systems are fundamental responsibilities for a utility company. In carrying out this responsibility, utilities are entitled to an opportunity to recover their prudently incurred costs. Rather than relying on deferred accounting treatment, any incremental costs associated with the Grid Improvement Plan should be considered in the context of a general rate case.

Q. What do you recommend with respect to the proposed deferral of Grid Improvement Plan costs?

A. I recommend that the Commission reject Duke Energy Carolinas' proposal for deferred accounting for Grid Improvement Plan investments. These grid investment costs do not warrant deferred accounting treatment and are best considered within the context of a general rate case.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE NORTH CAROLINA UTILITY COMMISSION

Application of Duke Energy Carolinas, LLC For Adjustment of Rates and Charges Applicable to Electric Service in North Carolina	)))))	**DOCKET NO. E-7 SUB 1214**

AFFIDAVIT OF JUSTIN BIEBER

STATE OF UTAH)
)
COUNTY OF SALT LAKE)

Justin Bieber, being first duly sworn, deposes and states that:

1. He is a Senior Consultant with Energy Strategies. L.L.C., in Salt Lake City, Utah;

2. He is the witness who sponsors the accompanying testimony entitled "Direct Testimony of Justin Bieber;"

3. Said testimony was prepared by him and under his direction and supervision;

4. If inquiries were made as to the facts and schedules in said testimony he would respond as therein set forth; and

5. The aforesaid testimony and schedules are true and correct to the best of his knowledge, information and belief.

Justin Bieber

Subscribed and sworn to or affirmed before me this 18th day of February, 2020, by Justin Bieber.

Notary Public
Kimberlie A. Ignjatovic
State of Utah
My Commission Expires April 18, 2023
Commission #705871

Notary Public

BEFORE THE NORTH CAROLINA UTILITY COMMISSION

Application of Duke Energy Carolinas, LLC For Adjustment of Rates and Charges Applicable to Electric Service in North Carolina	)))))	DOCKET NO. E-7 SUB 1214

EXHIBITS OF

JUSTIN BIEBER

ON BEHALF OF

HARRIS TEETER LLC

Rate Schedule OPT-VSS Charges Relative to Cost at Duke Energy Carolinas Current Rates

	Rate Component	Billing Units	Rates	Total Revenues	Customer Revenues	Demand Revenues	Energy Revenues
1	Facilities Charge	199,824	$32.17	$6,428,343	$6,428,343	$0	$0
2	Summer On-Peak Demand Charge	6,037,048	$15.8246	$95,533,865	$0	$95,533,865	$0
3	Winter On-Peak Demand Charge	11,045,560	$8.6426	$95,462,355	$0	$95,462,355	$0
4	Economy Demand	616,549	$1.6141	$995,172	$0	$995,172	$0
5	On-Peak Energy Charge	1,851,731,767	$0.06090	$112,776,020	$0	$57,736,996	$55,039,023
6	Off-Peak Energy Charge	5,899,842,404	$0.02972	$175,361,016	$0	$0	$175,361,016
7	**Total Revenues**			**$486,556,770**	**$6,428,343**	**$249,728,388**	**$230,400,039**

	Classification	Costs	Revenues	Revenues/Costs
8	Customer	$3,940,594	$6,428,343	163.1%
9	Demand	$267,886,509	$249,728,388	93.2%
10	Energy	$214,536,519	$230,400,039	107.4%
11	**Total**	**$486,363,622**	**$486,556,770**	**100.0%**

12 All customer, demand, and energy related costs from Duke Energy Carolinas Summer Coincident Peak Unit Cost Study
13 All revenues from Facilities Charges are customer related
14 Demand revenues equal to the sum of revenues from all demand charges (Lines 2 + 3 + 4) plus the product of the on-peak energy charge premium (on-peak less off-peak rate) and the on-peak billing determinants
15 Energy revenues equal to the total energy usage billing determinant kWh multiplied by the off-peak energy rate

Rate Schedule OPT-VSS Charges Relative to Cost at Duke Energy Carolinas Proposed Rates

	Rate Component	Billing Units	Rates	Total Revenues	Customer Revenues	Demand Revenues	Energy Revenues
1	Facilities Charge	199,824	$32.17	$6,428,343	$6,428,343	$0	$0
2	Summer On-Peak Demand Charge	6,037,048	$17.0117	$102,700,444	$0	$102,700,444	$0
3	Winter On-Peak Demand Charge	11,045,560	$9.6158	$106,211,894	$0	$106,211,894	$0
4	Economy Demand	616,549	$2.2815	$1,406,656	$0	$1,406,656	$0
5	On-Peak Energy Charge	1,851,731,767	$0.06642	$122,993,876	$0	$62,805,186	$60,188,689
6	Off-Peak Energy Charge	5,899,842,404	$0.03250	$191,768,477	$0	$0	$191,768,477
7	**Total Revenues**			**$531,509,690**	$6,428,343	$273,124,181	$251,957,167

	Classification	Costs	Revenues	Revenues/Costs
8	Customer	$4,482,998	$6,428,343	143.4%
9	Demand	$306,049,313	$273,124,181	89.2%
10	Energy	$218,719,293	$251,957,167	115.2%
11	**Total**	**$529,251,604**	**$531,509,690**	**100.4%**

12 All customer, demand, and energy related costs from Duke Energy Carolinas Summer Coincident Peak Unit Cost Study
13 All revenues from Facilities Charges are customer related
14 Demand revenues equal to the sum of revenues from all demand charges (Lines 2 + 3 + 4) plus the product of the on-peak energy charge premium (on-peak less off-peak rate) and the on-peak billing determinants
15 Energy revenues equal to the total energy usage billing determinant kWh multiplied by the off-peak energy rate

I/A

Kroger Recommended OPT-VSS Rate Design
at Duke Energy Carolinas' Proposed Revenue Requirement

	Billing Determinants	Present Rate Effective 1/1/2019	Test Year Billing Units (Schedule OPTVSS)	Test Year Billing Units (HP with OPTVSS baseline)	Total Billing Units All Sources OPTVSS	Present Revenue Billed on OPTVSS	Proposed Rate (OPTVSS)	Proposed Revenue for OPTVSS
1								
2	Facilities Charge	32.17	199,792	32	199,824	6,428,345	32.17	6,428,343
3								
4	Demand Charges							
5	Summer On-Peak Demand Charge							
6	First 2000 KW	15.8246	6,035,298	1,750	6,037,048	95,533,865	18.7671	113,297,839
7	Next 3000 KW	15.8246	0	0	0	0	18.7671	0
8	All KW over 5000 KW	15.8246	0	0	0	0	18.7671	0
9	Winter On-Peak Demand Charge							
10	First 2000 KW	8.6426	11,041,889	3,530	11,045,420	95,461,145	10.6080	117,170,141
11	Next 3000 KW	8.6426	140	0	140	1,210	10.6080	1,485
12	All KW over 5000 KW	8.6426	0	0	0	0	10.6080	0
13	Economy Demand	1.6141	607,539	9,010	616,549	995,172	2.2815	1,406,656
14								
15	Energy Charges							
16	On-Peak	0.060903	1,851,114,052	617,715	1,851,731,767	112,776,020	0.063640	117,844,210
17	Off-Peak	0.029723	5,896,271,832	3,570,572	5,899,842,404	175,361,016	0.029723	175,361,016
18	Minimum Bill per kW of Contract Demand	1.99					2.17	
19								
20	Present Revenue from Billing Units and Present Rates					486,556,770		531,509,690
21	Revenue adjusted for Spread Factor					485,243,510		530,075,260

Rate Schedule OPT-VSS Charges Relative to Cost at Kroger Recommended OPT-VSS Rate Design at Duke Energy Carolinas Proposed Revenue Requirement

	Rate Component	Billing Units	Rates	Total Revenues	Customer Revenues	Demand Revenues	Energy Revenues
1	Facilities Charge	199,824	$32.17	$6,428,343	$6,428,343	$0	$0
2	Summer On-Peak Demand Charge	6,037,048	$18.7671	$113,297,839	$0	$113,297,839	$0
3	Winter On-Peak Demand Charge	11,045,560	$10.6080	$117,171,627	$0	$117,171,627	$0
4	Economy Demand	616,549	$2.2815	$1,406,656	$0	$1,406,656	$0
5	On-Peak Energy Charge	1,851,731,767	$0.06364	$117,844,210	$0	$62,805,186	$55,039,023
6	Off-Peak Energy Charge	5,899,842,404	$0.02972	$175,361,016	$0	$0	$175,361,016
7	**Total Revenues**			**$531,509,690**	**$6,428,343**	**$294,681,309**	**$230,400,039**

	Classification	Costs	Revenues	Revenues/Costs
8	Customer	$4,482,998	$6,428,343	143.4%
9	Demand	$306,049,313	$294,681,309	96.3%
10	Energy	$218,719,293	$230,400,039	105.3%
11	**Total**	**$529,251,604**	**$531,509,690**	**100.4%**

12 All customer, demand, and energy related costs from Duke Energy Carolinas Summer Coincident Peak Unit Cost Study
13 All revenues from Facilities Charges are customer related
14 Demand revenues equal to the sum of revenues from all demand charges (Lines 2 + 3 + 4) plus the product of the on-peak energy charge premium (on-peak less off-peak rate) and the on-peak billing determinants
15 Energy revenues equal to the total energy usage billing determinant kWh multiplied by the off-peak energy rate

Rate Schedule OPT-VSS Bill Impacts
at Kroger Recommended OPT-VSS Rate Design
at Duke Energy Carolinas Proposed Revenue Requirement

Rate OPT-VSS Secondary Small Summer (Industrial Service)

Billing Demand (kW)	kWh	Peak Demand Load Factor	Present Schedule Revenue	Proposed Schedule Revenue	Percent Increase
85	25,000	40%	$2,517.97	$2,780.45	10.42%
85	30,000	48%	$2,745.13	$3,009.67	9.64%
85	40,000	64%	$3,199.43	$3,468.10	8.40%
85	50,000	81%	$3,653.73	$3,926.53	7.47%
500	150,000	41%	$14,788.16	$16,333.38	10.45%
500	225,000	62%	$18,195.44	$19,771.62	8.66%
500	300,000	82%	$21,602.72	$23,209.86	7.44%

Rate OPT-VSS Secondary Small Winter (Industrial Service)

Billing Demand (kW)	kWh	Peak Demand Load Factor	Present Schedule Revenue	Proposed Schedule Revenue	Percent Increase
85	25,000	40%	$1,90[illegible].50	$2,086.93	9.41%
85	30,000	48%	$2,1[illegible].66	$2,316.15	8.50%
85	40,000	64%	$2,588.96	$2,774.58	7.17%
85	50,000	81%	$3,043.26	$3,233.01	6.24%
500	150,000	41%	$11,197.16	$12,253.84	9.44%
500	225,000	62%	$14,604.44	$15,692.09	7.45%
500	300,000	82%	$18,011.72	$19,130.33	6.21%

Rate OPT-VSS Secondary Small Summer (General Service)

Billing Demand (kW)	kWh	Peak Demand Load Factor	Present Schedule Revenue	Proposed Schedule Revenue	Percent Increase
85	25,000	40%	$2,530.72	$2,736.88	8.15%
85	30,000	48%	$2,760.43	$2,957.38	7.13%
85	40,000	64%	$3,219.83	$3,398.38	5.55%
85	50,000	81%	$3,679.23	$3,839.38	4.35%
500	150,000	41%	$14,864.66	$16,071.93	8.12%
500	225,000	62%	$18,310.19	$19,379.45	5.84%
500	300,000	82%	$21,755.72	$22,686.96	4.28%

Rate OPT-VSS Secondary Small Winter (General Service)

Billing Demand (kW)	kWh	Peak Demand Load Factor	Present Schedule Revenue	Proposed Schedule Revenue	Percent Increase
85	25,000	40%	$1,920.25	$2,043.36	6.41%
85	30,000	48%	$2,149.96	$2,263.86	5.30%
85	40,000	64%	$2,609.36	$2,704.86	3.66%
85	50,000	81%	$3,068.76	$3,145.86	2.51%
500	150,000	41%	$11,273.66	$11,992.39	6.38%
500	225,000	62%	$14,719.19	$15,299.91	3.95%
500	300,000	82%	$18,164.72	$18,607.43	2.44%