STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1285

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of Application of Duke Energy Carolinas, LLC for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider Pursuant to N.C. Gen. Stat. § 62-133.9 and Commission Rule R8-69	))))))	**DIRECT TESTIMONY OF CASEY Q. FIELDS FOR DUKE ENERGY CAROLINAS, LLC**

I. INTRODUCTION AND PURPOSE

Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND POSITION WITH DUKE ENERGY.

A. My name is Casey Q. Fields, and my business address is 411 Fayetteville Street, Raleigh, North Carolina 27601. I am employed by Duke Energy Business Services, LLC ("Duke Energy") as Strategy and Collaboration Manager for the Carolinas in the Customer Solutions Regulatory Enablement group.

Q. PLEASE BRIEFLY STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A. I graduated from North Carolina State University in 2008 with a Bachelor of Science Degree in Science, Technology and Society. While obtaining my degree, I interned for Progress Energy at the Harris Nuclear Plant in Corporate Communications in 2006 and later served as a contractor until 2010. Upon graduation I worked for Disability Determination Services for the North Carolina Department of Health and Human Services performing case work and interacting with applicants. In 2010, I joined Ecova where my primary focus was helping implement Progress Energy's Residential Lighting Program. I joined Duke Energy in 2013 and have held multiple roles, including Program Manager in income-qualified programs and a Senior Solutions Developer. I moved into my current role in March of 2022.

Q. HAVE YOU PREVIOUSLY PROVIDED TESTIMONY IN MATTERS BROUGHT BEFORE THIS COMMISSION?

A. No. I have not.

Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?

A. I am responsible for the regulatory support of demand-side management ("DSM")/energy efficiency ("EE") programs in North Carolina for both Duke Energy Carolinas, LLC ("DEC" or the "Company") and Duke Energy Progress, LLC ("DEP").

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

A. My testimony supports DEC's application for approval of its DSM/EE Cost Recovery Rider, Rider EE, for 2024 ("Rider 15"), which encompasses the Company's portfolio of programs and cost recovery and incentive mechanism approved in the Commission's *Order Approving DSM/EE Programs and Stipulation of Settlement* issued October 29, 2013, in Docket No. E-7, Sub 1032 and the Mechanism approved in the Commission's *Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms* ("2020 Mechanism" and, collectively with 2013 cost recovery mechanism, the "Mechanisms") issued on October 20, 2020, in Docket Nos. E-2, Sub 931 and E-7, Sub 1032 ("*2020 Sub 1032 Order,*" collectively, "*Sub 1032 Orders*"). My testimony provides in Section II a discussion of items the Commission specifically directed the Company to address in this proceeding; (III) an overview of the Commission's Rule R8-69 filing requirements; (IV) a synopsis of the DSM/EE programs included in this filing; (V) a discussion of program results; (VI) a summary of projected results; (VII) information on DEC's Evaluation Measurement & Verification ("EM&V") activities, including an update on the commencement of the persistence study of the energy savings related to the My Home Energy Report ("MyHER") program; (VIII) Impacts on the Rider; (IX) an overview of the calculation of the Portfolio Performance Incentive ("PPI") and Program Return Incentive ("PRI"); (X) information relating to the Collaborative; (XI) an update on how the Company is engaging with the Inflation Reduction Act; and (XII) a discussion of the agreement between the Public Staff – North Carolina Utilities Commission ("Public Staff") and Company related to the continued application of the updated Avoided Transmission and Distribution ("T&D") Rates that were applied beginning with Vintage 2022.

Q. PLEASE DESCRIBE THE EXHIBITS ATTACHED TO YOUR TESTIMONY.

A. Fields Exhibit 1 supplies, for each program, load impacts and avoided cost revenue requirements by vintage. Fields Exhibit 2 contains a summary of net lost revenues for the period January 1, 2016 through December 31, 2024. Fields Exhibit 3 contains the actual program costs for North Carolina for the period January 1, 2019 through December 31, 2022. Fields Exhibit 4 contains the found revenues used in the net lost revenue calculations. Fields Exhibit 5 supplies evaluations of event-based programs. Fields Exhibit 6 contains information about the results of DEC's programs and a comparison of actual impacts to previous estimates. Fields Exhibit 7 contains the projected program and portfolio cost-effectiveness results for the Company's current portfolio of programs. Fields Exhibit 8 contains a summary of 2022 program performance and an explanation of the variances between the forecasted program results and the actual results. Fields Exhibit 9 is a list of DEC's industrial and large commercial customers that have opted out of participation in its DSM or EE programs and a listing of those customers that have elected to opt in to DEC's DSM or EE programs after having initially notified the Company that they declined to participate, as required by Commission Rule R8-69(d)(2). Fields Exhibit 10 contains the projected PPI and PRI associated with Vintage 2024. Fields Exhibit 11 contains the six-year history of program and avoided costs. Fields Exhibit 12 provides the actual and expected dates when the EM&V for each program or measure will become effective. Fields Exhibit 13 provides a summary of the estimated activities and timeframe for completion of EM&V by program. Fields Exhibit 14 provides information showing the method used to exclude Find It Duke amounts from the energy efficiency portfolio. Fields Exhibits A through I provide the detailed completed EM&V reports for the following: MyHER Program Evaluation (Fields Exhibit A); EM&V Report for the Duke Energy Multifamily Energy Efficiency Program (Fields Exhibit B); Duke Energy Progress & Duke Energy Carolinas Neighborhood Energy Saver Program - 2021 Evaluation Report - FINAL (Fields Exhibit C); EM&V Report for the Duke Energy Small Business Energy Saver Program 2019-2020 (Revised) (Fields Exhibit D); EM&V Report for the Duke Energy 2020/2021 EnergyWise Business Program (Fields Exhibit E); Smart $aver Non-Residential Custom Program Years 2018-2019 Evaluation Report (Fields Exhibit F); 2021 Power Manager Evaluation Report (Includes Bring Your Own Thermostat) (Fields Exhibit G); Duke Energy Carolinas & Duke Energy Progress Retail Lighting Program - 2022 Evaluation Report – Final (Fields Exhibit H); and Duke Energy Carolinas Low Income Weatherization Program (2019-2020)

Evaluation Report (Fields Exhibit I). Fields Exhibit J is Low- and Moderate-Income Participation Study.

Q. WERE FIELDS EXHIBITS 1-14 PREPARED BY YOU OR AT YOUR DIRECTION AND SUPERVISION?

A. Yes, they were.

II. ACTIONS ORDERED BY THE COMMISSION

Q. PLEASE DESCRIBE THE ACTIONS DEC HAS TAKEN IN RESPONSE TO THE COMMISSION'S 2022 ORDER IN DEC'S PREVIOUS DSM/EE RIDER PROCEEDING.

A. In its December 12, 2022 *Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice* in Docket No. E-7, Sub 1265 ("Sub 1265 Order"), the Commission ordered: (1) that DEC and the collaborative participants shall give particular attention to addressing declining energy savings forecasts and expanding DSM/EE programs to assist DEC's low-income customers; and (2) that DEC shall initiate a persistence study of the MyHER energy savings.[1]

As part of the regular Collaborative meetings, DEC has facilitated and participated in a number of discussions regarding developing new programs, expanding the reach and increasing the impacts of existing programs, and identifying and overcoming market barriers. In addition to the feedback from members, the Company commissioned a study to evaluate the rate at which low- and moderate-income households participate in market-rate programs. This study, entitled the Low- and Moderate-Income Participation Study (LMI Study),

[1] Sub 1265 Order at Ordering ¶¶ 3 and 4.

identified a number of barriers to participation and recommended several ways to improve programs. The Collaborative has been reviewing the study since it was finalized last year and will continue to incorporate its finding in meetings this year. For the Commission's review, the LMI Study is attached to my testimony as Exhibit J.

Since the Commission's Sub 1265 Order was issued in December, the Company has also begun working with its third-party EM&V vendor to initiate in the first quarter of 2023 its study of the persistence of the MyHER program's energy savings. The Company anticipates the persistence study of the MyHER energy savings will be scheduled to be finalized by fourth quarter 2023, thereby making its findings potentially available for inclusion in the filing of the Company's next annual DSM/EE rider filing in 2024. Consistent with the Commission's Sub 1265 Order, the Company will continue to update the Commission on the progress of the persistence study until it is final.

III. RULE R8-69 FILING REQUIREMENTS

Q. WHAT INFORMATION DOES DEC PROVIDE IN RESPONSE TO THE COMMISSION'S FILING REQUIREMENTS?

A. The information for Rider 15 is provided in response to the Commission's filing requirements contained in R8-69(f)(1) and can be found in the testimony and exhibits of Company witnesses Fields and Listebarger as follows:

R8-69(f)(1)		Items	Location in Testimony
(i)		Forecasted NC retail sales for the rate period	Listebarger Exhibit 6
(ii)		For each measure for which cost recovery is requested through Rider 13:	
(ii)	a.	Total expenses expected to be incurred during the rate period	Fields Exhibit 1
(ii)	b.	Total costs savings directly attributable to measures	Fields Exhibit 1
(ii)	c.	EM&V activities for the rate period	Fields Exhibit 12
(ii)	d.	Expected peak demand reductions	Fields Exhibit 1
(ii)	e.	Expected energy reductions	Fields Exhibit 1
(iii)		Filing requirements for DSM/EE EMF rider, including:	
(iii)	a.	Total expenses for the test period in the aggregate and broken down by type of expenditure, unit, and jurisdiction	Fields Exhibit 3
(iii)	b.	Total avoided costs for the test period in the aggregate and broken down by type of expenditure, unit, and jurisdiction	Fields Exhibit 1
(iii)	c.	Description of results from EM&V activities	Testimony of Casey Fields and Fields Exhibits A-I
(iii)	d.	Total peak demand reductions in the aggregate and broken down per program	Fields Exhibit 1
(iii)	e.	Total energy reduction in the aggregate and broken down per program	Fields Exhibit 1
(iii)	f.	Discussion of findings and results of programs	Testimony of Casey Fields and Fields Exhibit 6
(iii)	g.	Evaluations of event-based programs	Fields Exhibit 5
(iii)	h.	Comparison of impact estimates from previous year and explanation of significant differences	Testimony of Casey Fields and Fields Exhibits 6 and 8
(iv)		Determination of utility incentives	Testimony of Casey Fields and Fields Exhibit 10
(v)		Actual revenues from DSM/EE and DSM/EE EMF riders	Listebarger Exhibit 4
(vi)		Proposed Rider 15	Testimony of Shannon Listebarger Exhibit 1
(vii)		Projected NC sales for customers opting out of measures	Listebarger Exhibit 6
(viii)		Supporting work papers	Via Data Transfer

IV. PORTFOLIO OVERVIEW

Q. WHAT ARE DEC'S CURRENT DSM AND EE PROGRAMS?

A. The Company has two interruptible programs for nonresidential customers, Interruptible Service (“IS”) and Standby Generation (“SG”), which are accounted for outside of the Mechanisms approved by the Commission in the *Sub 1032 Orders*. Aside from IS and SG, the following DSM/EE programs have been implemented by DEC in its North Carolina service territory:

RESIDENTIAL CUSTOMER PROGRAMS

- Energy Assessment Program
- EE Education Program
- Energy Efficient Appliances and Devices Program
- Smart $aver EE Program
- Multifamily EE Program
- MyHER Program
- Income-Qualified EE and Weatherization Program for Individuals
- Neighborhood Energy Saver Program
- New Construction
- Power Manager Load Control Service Program

NONRESIDENTIAL CUSTOMER PROGRAMS

- Nonresidential Smart $aver Energy Efficient Products and Assessment Prescriptive Program includes the following subsets of measures:
    - Energy Efficient Food Service Products
    - Energy Efficient HVAC Products
    - Energy Efficient IT Products
    - Energy Efficient Lighting Products

- Energy Efficient Process Equipment Products
- Energy Efficient Pumps and Drives Products

- Smart $aver Custom Incentive and Energy Assessment
- PowerShare Nonresidential Load Curtailment Program
- Business Energy Saver Program
- EnergyWise for Business Program
- Nonresidential Smart $aver Performance Incentive Program

Q. ARE THESE SUBSTANTIVELY THE SAME PROGRAMS DEC RECEIVED APPROVAL FOR IN DOCKET NO. E-7, SUB 1032?

A. Yes. The programs contained in the current portfolio are the same as those approved by the Commission in the initial *Sub 1032 Order*, with the exception of Business Energy Saver, Power Manager and EnergyWise for Business, which have been modified with the Commission's approval.

Q. PLEASE DESCRIBE ANY UPDATES MADE TO THE UNDERLYING ASSUMPTIONS FOR DEC'S PORTFOLIO OF PROGRAMS THAT HAVE REVISED PROJECTIONS FOR VINTAGE 2024.

A. Updates to underlying assumptions that materially impact DEC's 2024 portfolio projection are due to EM&V-related impacts. Additionally, the underlying assumptions in Smart $aver programs, which offer rebates and incentives to install higher efficiency heating, air conditioning and ventilation measures, have been updated to reflect the recent federal appliance standards advancements and changes to the efficient lighting standards that will be effective mid-2023.

Q. PLEASE DESCRIBE THE EM&V IMPACT TO DEC'S ESTIMATED 2024 PROGRAM PORTFOLIO.

A. Changes in the EM&V results were updated to reflect the savings impacts for those programs for which DEC received EM&V results after it prepared its application for approval of its DSM/EE Rider in its previous annual DSM/EE Rider proceeding in Docket No. E-7, Sub 1265. These changes updated the EM&V results for changes to the projected avoided cost benefits associated with the projected participation. Hence, these EM&V updates will impact the calculation of the specific program and overall portfolio cost-effectiveness, as well as impact the calculation of DEC's projected shared savings incentive.

Q. AFTER FACTORING THESE UPDATES INTO THE VINTAGE 2024 PORTFOLIO, DO THE RESULTS OF DEC'S PROSPECTIVE UTILITY COST-EFFECTIVENESS TESTS INDICATE THAT IT SHOULD DISCONTINUE OR MODIFY ANY OF ITS PROGRAMS?

A. DEC performed a prospective analysis of each of its programs and the aggregate portfolio for the Vintage 2024 period. The cost-effectiveness results for the entire portfolio for Vintage 2024 are contained in Fields Exhibit 7. The aggregate portfolio continues to project cost-effectiveness, with the exception of the Income-Qualified EE Products and Services Program, which was not cost-effective at the time of Commission approval, and an element of the Nonresidential Smart $aver Program. Based on the results of these cost-effectiveness tests, there are no reasons to discontinue any of DEC's programs. Notably, the Company continues to examine its programs for potential modifications to increase their effectiveness, regardless of the current cost-effectiveness results.

Q. PLEASE IDENTIFY THE ELEMENT OF THE NONRESIDENTIAL SMART $AVER PROGRAM THAT WAS FORECASTED TO BE LESS THAN COST EFFECTIVE.

A. The Information Technology subcategory of the Nonresidential Smart $aver Program had a UCT score that was less than 1.0.

Q. WOULD IT BE APPROPRIATE TO DISCONTINUE THIS PROGRAM ELEMENT?

A. At this time, closing this subcategory to new participation until it can be proven to be cost effective is appropriate. The Company will continue to look at creative ways to make this subcategory cost-effective.

V. DSM/EE PROGRAM RESULTS TO DATE

Q. HOW MUCH ENERGY, CAPACITY AND AVOIDED COST SAVINGS DID DEC DELIVER AS A RESULT OF ITS DSM/EE PROGRAMS DURING VINTAGE 2022?

A. During Vintage 2022, DEC's DSM/EE programs delivered over 669 million kilowatt-hours ("kWh") of energy savings, nearly 1,131 megawatts ("MW") of summer peak capacity savings and nearly 518 MW of winter peak capacity savings, which produced net present value of avoided cost savings of over $337 million. The 2022 performance results for individual programs are provided on page 7 of Fields Exhibit 1.

Q. HOW DID THE COMPANY'S PROGRAMS PERFORM RELATIVE TO THEIR ORIGINAL ESTIMATES FOR VINTAGE 2022?

A. Referring to Fields Exhibit 8, overall performance during 2022 was less than forecasted. The ongoing effects of the COVID pandemic had on program workforces, supply chain, and customer willingness to have program administrators onsite continues to impact forecasted performance. Inflation and the increase of measure costs have impacted the adoption of energy efficiency measures. Small Business Energy Saver, non-residential Lighting and non-residential Custom had less than anticipated participation. Nevertheless, there were highlights in program performance. The energy savings associated with the Residential Smart Saver program exceeded its forecast by 32 percent and energy savings associated with the Nonresidential Smart Saver Energy Efficient HVAC Products exceeded its savings forecast by 23 percent.

VI. PROJECTED RESULTS

Q. PLEASE PROVIDE A PROJECTION OF THE RESULTS THAT DEC EXPECTS TO SEE FROM IMPLEMENTATION OF ITS PORTFOLIO OF PROGRAMS.

A. Consistent with the terms of its Commission-approved cost recovery Mechanisms, DEC will update the actual and projected EE achievement levels in its annual Rider EE filing to account for any program or measure additions based on the performance of programs, market conditions, economics and consumer demand. The actual results for Vintage 2022 and projection of the results for

Vintages 2023 and 2024, as well as the associated projected program expense for DEC's portfolio of programs, are summarized in the following table:

DEC System (NC & SC) DSM/EE Portfolio 2022 Actual Results and 2023-2024 Projected Results			
	2022	2023	2024
Annual System Net MW - Summer	1,131	992	1,180
Annual System Net MW - Winter	518	505	608
Annual System Net GWh	669	786	808
Annual Program Costs (Millions)	$120.7	$156.3	$161.9

Q. PLEASE EXPLAIN IF THE COMPANY'S PROJECTIONS REFLECT THE FUNDING MADE AVAILABLE BY THE INFLATION REDUCTION ACT (IRA).

A. At this time, the Company's projections do not reflect any impacts of the IRA. Although the IRA was signed into law in 2022, the availability and impact of the funds are still being determined. The Company itself is rarely, if ever, a direct recipient of such funding, but it believes it can help customers leverage their available funding to achieve greater savings, as I discuss later in my testimony.

VII. EM&V ACTIVITIES

Q. PLEASE DESCRIBE THE COMPANY'S EM&V ACTIVITIES RELEVANT TO THIS PROCEEDING.

A. Fields Exhibit 12 summarizes the estimated activities and timeframe for completion of EM&V by program. Fields Exhibit 13 provides the actual and expected dates when the EM&V for each program or measure will become effective. Fields Exhibits A through I provide the detailed completed EM&V reports or updates for the following programs:

Fields Exhibit	EM&V Reports	Report Finalization Date	Effective Date	Evaluation Type
A	My Home Energy Report Program Evaluation	3/6/2022	2/1/2021 (MyHER, MyHER Online/Interactive); 11/1/16 (Multifamily, Multifamily Interactive)	Impact & Process
B	EM&V Report for the Duke Energy Multifamily Energy Efficiency Program	4/20/2022	7/1/2021	Impact & Process
C	Duke Energy Progress & Duke Energy Carolinas Neighborhood Energy Saver Program – 2021 Evaluation Report – FINAL	5/11/2022	7/1/2019	Impact & Process
D	EM&V Report for the Duke Energy Small Business Energy Saver Program 2019-2020 (Revised)	6/9/2022	7/1/2020	Impact & Process
E	EM&V Report for the Duke Energy 2020/2021 EnergyWise Business Program	7/7/2022	10/1/2021	Impact
F	Smart $aver Non-Residential Custom Program Years 2018-2019 Evaluation Report	7/14/2022	8/1/2022	Impact & Process
G	2021 Power Manager Evaluation Report (Includes Bring Your Own Thermostat)	11/22/2022	10/1/2021	Impact & Process
H	Duke Energy Carolinas & Duke Energy Progress Retail Lighting Program – 2022 Evaluation Report – Final	12/5/2022	4/1/2022	Impact & Process
I	Duke Energy Carolinas Low Income Weatherization Program (2019-2020) Evaluation Report	12/13/2022	1/1/2021	Impact & Process

Q. HOW WERE EM&V RESULTS UTILIZED IN DEVELOPING THE PROPOSED RIDER 15?

A. The Company has applied EM&V consistently with the agreement among DEC, the Southern Alliance for Clean Energy, and the Public Staff, approved by the Commission in its *Order Approving DSM/EE Rider and Requiring Filing of*

Proposed Customer Notice issued on November 8, 2011, in Docket No. E-7, Sub 979 ("EM&V Agreement").

Actual participation and evaluated load impacts are used prospectively to update net lost revenues estimates. In addition, the EM&V Agreement provides that initial EM&V results shall be applied retrospectively to program impacts that were based upon estimated impact assumptions derived from industry standards (rather than EM&V results for the program in the Carolinas), in particular the DSM/EE programs initially approved by the Commission in Docket No. E-7, Sub 831 ("Sub 831"), with the exception of the Nonresidential Smart $aver Custom Rebate Program. For purposes of the vintage true-ups and forecast, initial EM&V results are considered actual results for a program and continue to apply until superseded by new EM&V results, if any. For all new programs and pilots approved after the Sub 831 programs, DEC will use initial estimates of impacts until it has EM&V results, which will then be applied retrospectively to the beginning of the offering and will be considered actual results until a second EM&V is performed.

All program impacts from EM&V apply only to the programs for which the analysis was directly performed, though DEC's new product development may utilize actual impacts and research about EE and conservation behavior directly attributed to existing DEC program offerings.

The level of EM&V required varies by program and depends on that program's contribution to total portfolio, the duration the program has been in the portfolio without material change, and whether the program and administration is new and different in the energy industry. DEC estimates, however, that no additional costs above 5 percent of total program costs will be associated with performing EM&V for all measures in the portfolio.

Q. WHICH PROGRAMS CONTAIN IMPACT RESULTS BASED ON CAROLINAS-BASED EM&V?

A. All the filed EM&V studies, provided as Fields Exhibits A through I, were Carolinas-based.

VIII. IMPACTS ON RIDER

Q. HAVE THE PARTICIPATION RESULTS AFFECTED THE VINTAGE 2022 EXPERIENCE MODIFICATION FACTOR?

A. Yes. The EMF in Rider 15 accounts for changes to actual participation relative to the forecasted participation levels utilized in DEC's Vintage 2022 Rider EE. As DEC receives actual participation information, it can then update participation-driven actual avoided cost benefits from its DSM/EE programs and the net lost revenues derived from its EE programs. For example, as previously mentioned, the overall savings along with their related expenditures were less than those that were forecasted. As a result, the EMF will be reduced to reflect the lower costs, net lost revenues, and shared savings incentive (PPI) associated with its programs.

Q. HOW HAVE EM&V RESULTS BEEN INCORPORATED INTO THE VINTAGE 2022 TRUE-UP COMPONENT OF RIDER 15?

A. In accordance with the EM&V Agreement, all of the final EM&V results that have been received by DEC by December 31, 2022 have been applied prospectively from the first day of the month immediately following the month in which the study participation sample for the EM&V was completed. Accordingly, for any program for which DEC has received EM&V results, the per participant impact applied to the projected program participation in Vintage 2022 is based upon the actual EM&V results that have been received.

Q. PLEASE DESCRIBE HOW DEC CALCULATED FOUND REVENUES.

A. Consistent with the *Sub 1032 Orders* and with the "Decision Tree" found in Appendix A of the Commission's February 8, 2011 Order in Docket No. E-7, Sub 831, and approved for the new portfolio in the *Sub 1032 Orders*, possible found revenue activities were identified, categorized, and netted against the net lost revenues created by DEC's EE programs. Found revenues may result from activities that directly or indirectly result in an increase in customer demand or energy consumption within DEC's service territory. Load-building activities such as these, however, would not be considered found revenues if they (1) would have occurred regardless of DEC's activity, (2) were a result of a Commission-approved economic development activity not determined to produce found revenues, or (3) were part of an unsolicited request for DEC to engage in an activity that supports efforts to grow the economy. On the other hand, found revenues would occur for load growth that did not fall into the previous categories but was directly or indirectly a result of DEC's activities. Based on the results of this work, all potential found revenue-related activities are identified and categorized in Fields Exhibit 4. Additionally, consistent with the methodology employed and approved in Docket No. E-7, Sub 1073, as discussed in detail in the testimony of Company witness Timothy J. Duff in Docket No. E-7, Sub 1050, DEC also proposes to adjust the calculation of found revenues to account for the impacts of activities outside of EE programs that it undertakes that reduce customer consumption – i.e., "negative found revenues."

Q. DOES THE COMPANY'S CALCULATION OF FOUND REVENUES CONTINUE TO ACCOUNT FOR NEGATIVE FOUND REVENUE ACTIVITIES?

A. Yes, Consistent with the methodologies approved in the Company's Mechanisms, the Company's calculation of Found Revenues appropriately accounts for Negative Found Revenues.

Q. HAS THE OPT-OUT OF NONRESIDENTIAL CUSTOMERS AFFECTED THE RESULTS FROM THE PORTFOLIO OF APPROVED PROGRAMS?

A. Yes, the opt-out of qualifying nonresidential customers affects DEC's overall nonresidential impacts. For Vintage 2022, DEC had 4,516 eligible customer accounts opt out of participating in DEC's nonresidential portfolio of EE programs. In addition, DEC had 4,787 eligible customer accounts opt out of participating in DEC's nonresidential DSM programs. For 2022, ninety opt-out eligible accounts opted-in to the EE portion of the Rider, and one opt-out eligible accounts opted-in to the DSM portion of the Rider.

Q. PLEASE EXPLAIN THE DECREASE IN THE NUMBER OF OPT-OUTS IN 2021 COMPARED TO 2020.

A. The reduction in the number of customers opted-out is largely due to the ongoing impacts of the COVID pandemic. In particular, the number of large commercial customers eligible to opt-out due to their annual consumption exceeding the 1,000,000 kWh opt-out threshold, set forth in Commission Rule R8-69(d), has lessened.

Q. ASIDE FROM THESE COVID-RELATED REDUCTIONS, IS THE COMPANY CONTINUING ITS EFFORTS TO ATTRACT THE PROGRAM PARTICIPATION OF OPT-OUT ELIGIBLE CUSTOMERS?

A. Yes. Increasing the participation of opt-out eligible customers in DSM and EE programs is a priority to the Company. DEC continues to evaluate and revise its nonresidential portfolio of programs to accommodate new technologies, eliminate product gaps, remove barriers to participation, and make its programs more attractive. It also continues to leverage its Large Account Management Team to make sure customers are informed about product offerings and the March Opt-in Window.

The Company discussed an approach to a demand response offering with customers and interested parties to explore whether a larger incentive would encourage opted out customers with quicker response times to opt in. This potential approach was based on similar programs operating in California. The Company worked with interested parties to define the parameters that would work operationally and cost effectively in Duke Energy's Carolinas territories. Ultimately, that proposed concept was found to garner insufficient interest from potential participants, but the Company is continuing to review new opportunities with opted out customers and will continue to engage customers that may benefit from those type programs.

IX. PPI & PRI CALCULATION

Q. PLEASE PROVIDE AN OVERVIEW OF THE COST RECOVERY AND INCENTIVE MECHANISMS APPROVED IN DOCKET NO. E-7, SUB 1032.

A. Pursuant to the related *Sub 1032 Orders*, the Mechanisms allow DEC to (1) recover the reasonable and prudent costs incurred for adopting and implementing DSM and EE measures in accordance with N.C. Gen. Stat. § 62-133.9 and Commission Rules R8-68 and R8-69; (2) recover net lost revenues incurred for up to 36 months of a measure's life for EE programs; and (3) earn a PPI based upon the sharing of a percentage of the net savings achieved through DEC's DSM/EE programs on an annual basis. Prior to 2022 the shared savings percentage is 11.5% and, starting in 2022, this percentage was lowered to 10.6%. The PPI is also subject to certain limitations that are set forth in the Mechanisms.

Q. PLEASE EXPLAIN HOW DEC DETERMINES THE PPI.

A. First, DEC determines the net savings eligible for incentive by subtracting the present value of the annual lifetime DSM/EE program costs (excluding approved income-qualified programs as described below) from the net present value of the annual lifetime avoided costs achieved through the Company's programs (again, excluding approved income-qualified programs). The Company then multiplies the net savings eligible for incentive by the applicable shared savings percentage to determine its pretax incentive.

Q. PLEASE EXPLAIN WHETHER DEC EXCLUDES ANY PROGRAMS FROM THE DETERMINATION OF ITS PPI CALCULATION.

A. Consistent with the *Sub 1032 Orders*, DEC has excluded the impacts and costs associated with the Neighborhood Energy Saver Program and the Income-Qualified EE and Weatherization Program for Individuals from its calculation of the PPI. At the time the program was approved, it was not cost-effective, but was approved based on its societal benefit. Beginning in 2022, the Income-Qualified EE and Weatherization programs are eligible to receive a PRI,

Q. PLEASE EXPLAIN HOW DEC DETERMINES PRI.

A. The PRI is determined by multiplying the net present value of avoided cost by 10.6 percent. As with the PPI, the PRI is also subject to certain limitations that are set forth in the 2020 Mechanism. The percentage used to determine the final PRI for each Vintage Year will be based on the Company's ability to maintain or improve the cost effectiveness of the PRI-eligible programs.

The PRI percentage for each PRI-eligible Program will be determined by comparing (1) the projected UCT ratio for the portfolio of PRI-eligible Programs for the Vintage Year at the time of the Company's DSM Rider filing first estimating that projected Vintage Year UCT ratio to (2) the actual UCT ratio achieved for that portfolio of PRI-eligible Programs as that Vintage Year is trued up in future filings. The ratio (UCT actual/UCT estimate) will then be multiplied by 10.60% to determine the PRI percentage that will be applied to the actual avoided costs generated by each approved PRI eligible program.

X. <u>COLLABORATIVE</u>

Q. PLEASE SUMMARIZE THE COLLABORATIVE ACTIVITIES OCCURRING IN 2022.

A. The Collaborative met for formal meetings in January, March, May, July, September, and November. Between meetings, interested stakeholders joined conference calls as needed to zero in on certain agenda items or priorities which could not be fully explored during the formal meetings, such as new program development, study results and federal funding opportunities. Collaborative members gained a deeper understanding of the issues facing Duke's DSM/EE programs and brought the Company valuable feedback and perspective. Meetings and calls have begun and will continue in a similar fashion through 2023 as well.

Q. HAS THE COLLABORATIVE EXAMINED THE REASONS FOR THE FORECASTED DECLINE IN SAVINGS AND EXPLORED OPTIONS FOR PREVENTING OR CORRECTING A DECLINE IN FUTURE DSM/EE SAVINGS?

A. Yes, the forecasted decline in savings was a primary focus of the Collaborative in 2022. Declines attributed primarily to changing lighting standards and widespread adoption of LEDs have continued to impact programs' savings. However, the Company has discussed a number of new programs with the Collaborative, including several which have been filed for Commission approval. Additionally, the Collaborative is involved in ongoing discussions about expanding program footprints and leveraging state and federal legislation to capture more opportunities.

Q. HAS THE COLLABORATIVE LOOKED SPECIFICALLY AT EE PROGRAMS TO ASSIST INCOME-QUALIFIED CUSTOMERS IN SAVING ENERGY?

A. Yes, the Collaborative has been focused on assisting income-qualified households. Not only have Collaborative members been active in other working groups during 2021 and 2022, but they have also brought findings from those groups to the work they do for DSM/EE programs. For example, the High Energy Use Pilot was filed on June 30, 2022, as result of the work done by a group created in response to the Company's most recent rate case and comprised of a number of Collaborative members.[2] The Collaborative will continue to monitor its progress and suggest improvements once the Commission decides whether or not to approve it.

The Collaborative also reviewed findings of the LMI Participation Study, discussed earlier in my testimony, and offered insights and comments on the preliminary findings of that study.

Q. WHAT IS THE STATUS OF PROGRAM SUGGESTIONS OFFERED BY THE COLLABORATIVE IN PREVIOUS YEARS?

A. The Company has reviewed all suggestions offered by Collaborative members. Several of the suggestions did not meet the Company's requirements for a stand-alone program but have been incorporated into existing programs. Other ideas the Collaborative offered have been tabled until regulatory conditions evolve or

[2] At the time of the filing of this testimony, the Commission had approved the pilot at the February 27, 2023 Monday staff conference.

technology advances. For example, the Collaborative suggested that DEC explore claiming savings from advancing building energy codes and appliance standards in the Carolinas similar to how they are claimed in other states. The Company has tabled this suggestion until such time as North Carolina adopts a framework that defines the actions a utility must take to claim attributed savings and determines the appropriate attribution methodology Another example is the suggestion to advance the adoption of heat pump water heaters in low-income households by offering a rental program, an idea that many members expected to become more feasible once new heat pump water heater models requiring less ventilation space became available. The Company agrees, after discussing with its vendors, that new models of water heaters could make this program feasible and will revive the investigation once those technological advancements achieve widespread commercial availability.

XI. INFLATION REDUCTION ACT – RESIDENTIAL REBATES

Q. HAS THE COMPANY PURSUED THE OPPORTUNITIES THAT MAY ARISE THROUGH TAX INCENTIVES OR FEDERAL FUNDING TO BENEFIT ITS CUSTOMERS?

A. Yes, the Company has internally reviewed the Home Energy Performance-Based, Whole House Rebates and High-Efficiency Electric Home Rebate Program to consider how our customers would uniquely benefit from coordinating the Company's energy efficiency incentives and IRA rebates. As I previously discussed, the Company itself does not directly receive IRA funds to apply to its energy efficiency programs, but it nonetheless believes it can provide significant value to its customers by acting as a "one-stop shop" for customers to help them to understand, qualify for, and receive IRA funds that, when possible, can be used to compliment the Company's energy efficiency programs. For example, in addition to its existing equipment incentive programs, the MyHER and Home Energy House Call programs will continue to provide opportunities to proactively educate and engage residential customers about the opportunities that IRA funds can provide. Use of the funds in this way can help to ensure that customer efficiency and energy savings are realized at the lowest possible cost to customers. Moreover, to best understand and maximize the opportunities that these funds provide to customers to become more energy efficient, the Company is actively working with the North Carolina State Energy Office, who will likely be dispersing the funds. The Company will be submitting a response on March 3rd to the United States Department of Energy's Office of State and Community Energy Programs' January 18, 2023, Request for Information on the Inflation Reduction Act Home Efficiency & Electrification Rebate Programs. The Company intends to provide on-going status updates on its efforts around the IRA funds to the Collaborative and will provide an update in next year's annual rider filing.

The Company also continues to engage with members of the Collaborative who have expressed interest in understanding how the Company will coordinate and optimize the deployment of those rebates.

XII. AVOIDED T&D STUDY

Q. DID THE COMPANY AND THE PUBLIC STAFF COMPLETE THEIR REVIEW OF DUKE'S 2021 AVOIDED T&D STUDY?

A. Yes. As discussed in the Public Staff's December 19, 2022, update letter to the Commission referencing Dockets E-2, Sub 1294 and E-7, Sub 1265, after numerous meetings and exchanges of information, the review of the 2021 Avoided T&D Study was completed.

Q. PLEASE GENERALLY DESCRIBE THE REVIEW OF THE AVOIDED T&D STUDY.

A. Although the 2021 Avoided T&D Study was performed by Duke Energy consistently with the approach utilized to conduct previous studies, in the process of responding to the Public Staff's questions, the Company determined that a more detailed screening of the underlying T&D capital investments was needed. Rather than relying on general cost categorization, the additional screening reviews the actual project description within each of the cost categories. The additional screening is designed to ensure that capital investment associated with the T&D system was appropriately limited to those specifically related to system capacity expansion and excluded those related to reliability investments.

Q. PLEASE DESCRIBE HOW THE RESULTS OF THE REVIEW OF THE 2021 AVOIDED T&D STUDY WILL BE APPLIED IN THE FUTURE.

A. After developing the additional screening methodologies, the Company applied them to the 2021 Avoided T &D study and found that the results validated the agreed-upon avoided T&D rate applied to Vintage 2023. Following this validation, the Company and the Public Staff agreed that it is appropriate that avoided T&D rates agreed to in late 2021 should continue, using the associated escalator rates, until the next Avoided T&D study is completed and incorporated. Consistent with the schedule set out in the Company's approved EE/DSM Mechanisms, the next Avoided T&D Study will be conducted in 2024 and utilize the new agreed-upon methodology. The next Avoided T&D Study will then be applied to the projection for Vintage Year 2026.

XIII. CONCLUSION

Q. DOES THIS CONCLUDE YOUR PRE-FILED DIRECT TESTIMONY?

A. Yes.