STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1322

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

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 Senior 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 OR OTHER REGULATORY COMMISSIONS?

A. Yes. I testified in Docket No. E-7, Sub 1285, the most recent Duke Energy Carolinas, LLC's annual demand-side management ("DSM")/energy efficiency ("EE") recovery rider proceeding.

Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?

A. I am responsible for the regulatory support of DSM/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. The purpose of my testimony is to explain and support DEP's proposed DSM/EE Cost Recovery Rider and Experience Modification Factor ("EMF"). My testimony is organized as follows: In Section II, I discuss the items that the Commission specifically directed the Company to address in this proceeding. Section III provides an overview of the Commission's Rule R8-69 filing requirements; Section IV is a synopsis of the DSM/EE programs included in this filing; Section V discusses program results; Section VI explains how these results have affected DSM/EE rate calculations; Section VII describes DEP's Evaluation Measurement & Verification ("EM&V") activities; Section VIII explains the rate impacts); Section IX details the Net Lost Revenues; Section X explains the PPI and PRI Calculations; (Section XI updates the Commission on how the Company is engaging with the Inflation Reduction Act; Section XII describes an 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, 2019 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 revenues calculations. Fields Exhibit 5 supplies evaluations of event-based programs. Fields Exhibit 6 contains information about the results of DEP's programs and a comparison of actual impacts to previous estimates. Fields Exhibit 7 contains the projected program and portfolio cost-effectiveness results for DEP's approved programs. Fields Exhibit 8 contains a summary of 2022 program performance and an explanation of the variances between the expected program results and the actual results. Fields Exhibit 8 is designed to create more transparency regarding the factors that have driven these variances. Fields Exhibit 9 lists DEP's industrial and large commercial customers that have opted out of participation in the Company's DSM and/or EE programs and also lists those customers that have elected to participate in new measures after having initially notified the Company that they declined to participate, as required by Commission Rule R8-69(d)(2). Fields Exhibit 10 provides the actual and expected dates when the

EM&V for each program or measure will become effective. Fields Exhibit 11 provides a summary of the estimated activities and timeframe for completion of EM&V by program. Fields Exhibit 12 provides a table showing program costs and avoided costs savings for the test year ending December 31, 2022 and for the previous five test periods. Fields Exhibit 13 provides information showing the method used to exclude Find it Duke amounts from the energy efficiency portfolio.

Fields Exhibits A through I provide detailed EM&V reports, completed or updated since DEP's DSM/EE Cost Recovery Rider Filing in Docket No. E-2, Sub 1273, for the following programs: Energy Wise Home Demand Response Program Summer 2021 (Fields Exhibit A); Neighborhood Energy Saver Program 2021 Evaluation Report (Fields Exhibit B); Small Business Energy Saver Program 2019-2020 Evaluation Report (Fields Exhibit C); EnergyWise Business 2020/2021 (Fields Exhibit D); Smart$aver Non-Residential Custom Program 2018-2019 Evaluation Report (Fields Exhibit E); Non-Profit Low Income Weatherization Pay for Performance Pilot Program Evaluation Report 2022 (Fields Exhibit F); Retail Lighting Program 2022 Evaluation Report (Fields Exhibit G); EnergyWise Home Demand Response Program Winter 2021/2022 (Fields Exhibit H); and Non-Residential Smart$aver Prescriptive Program Evaluation (Fields Exhibit I). Fields Exhibit J includes the Low and Moderate Income Penetration Study.

Q. WERE FIELDS EXHIBITS 1-13 PREPARED BY YOU OR AT YOUR DIRECTION AND SUPERVISION?

A. Yes, they were.

II. ACTIONS ORDERED BY THE COMMISSION

Q. PLEASE DESCRIBE THE ACTIONS THE COMMISSION DIRECTED DEP TO TAKE IN THE COMMISSION'S ORDER IN DOCKET NO. E-2, SUB 1294.

A. In its December 22, 2022 *Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice* in Docket No. E-2, Sub 1294 ("Sub 1294 Order"), the Commission ordered that: (1) that DEP should continue to leverage its collaborative stakeholder meetings (Collaborative) to expand on the existing discussions related to the decline in current and forecasted energy savings and the expansion and improvements of low-income EE programs and other program design issues raised in the testimony of NC Justice Center, et al. witness Bradley-Wright and provide a summary of those discussions in the Company's next DSM/EE rider filing; (2) that DEP shall continue to leverage its Collaborative to discuss the on-going challenges to customers adopting energy efficiency in the market that has led to current and forecasted decline in energy savings and the development and expansion of EE for low-income customers and report the results of these discussions in the Company's 2023 DSM/EE rider filing; (3) that the combined DEC/DEP Collaborative shall continue to meet every other month; (4) that DEP shall coordinate with DEC to conduct a study of the persistence of My Home Energy Report ("MyHER") energy savings over time, in compliance with the discussion of in the

Commission's Order and in the DEC DSM/EE Order issued on December 12, 2022, in Docket No. E-7, Sub 1265.

Q. DID DEP CONTINUE TO LEVERAGE THE COLLABORATIVE TO DISCUSS ISSUES RAISED BY INTERVENORS IN DOCKET E-2, SUB 1294?

A. As part of the regular Collaborative meetings, DEP 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), 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.

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 technology advances. For example, the Collaborative suggested that DEP 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. The Company will continue conversations with the Collaborative to incorporate new ideas and measures into the portfolio.

Q. DID DEP CONTINUE TO LEVERAGE THE COLLABORATIVE TO DISCUSS ON-GOING CHALLENGES TO CUSTOMERS ADOPTING ENERGY EFFICIENGY IN THE MARKET, INLCUDING CURRENT AND FORECASTED DECLINE IN ENERGY SAVINGS AND DEVELOPMENT AND EXPANSION OF EE FOR LOW-INCOME CUSTOMERS?

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.

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 Company filed the DEP Weatherization Program based on feedback from Low-Income Affordability Collaborative ("LIAC") working groups. 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. 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 focus on certain agenda items or priorities that could not be fully explored during the formal meetings. These items included 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 similarly through 2023.

Q. DOES DEP HAVE AN UPDATE ON THE COORDINATION WITH DEC TO CONDUCT A STUDY OF PERSISTENCE OF MYHER ENERGY SAVINGS OVER TIME?

A. Yes, DEP and DEC have engaged with a third-party EM&V vendor to scope the requirements of the study, which began in the first quarter of 2023 following the Commission's December 2022 order to undertake such coordination. In its previous DSM/EE rider proceeding, DEC updated the Commission that "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." Since that update, the Company and the third-party party EM&V vendor are expecting ongoing work to continue throughout 2023. The recommendation from the vendor is to study for persistence of energy savings for a period of two years. This would make the timing such that MyHER participants would stop receiving email and paper MyHER reports beginning January 2024. An interim report for first-year persistence would be available in the First Quarter of 2025, with a final report expected to be available in the Third Quarter of 2026, which would encompass persistence impacts for both the first and second year of the persistence study. The results of the study will be reflected in next upcoming rider filing following its completion.

III. RULE R8-69 FILING REQUIREMENTS

Q. PLEASE PROVIDE AN OVERVIEW OF THE INFORMATION DEP IS PROVIDING IN RESPONSE TO THE COMMISSION'S FILING REQUIREMENTS.

A. The information for this filing is provided pursuant to the Commission's filing requirements contained in R8-69(f)(1) and can be found in my testimony and exhibits, as well as the testimony and exhibits of Company witness Carolyn T. Miller as follows:

R8-69(f)(1)		Items	Location in Testimony
(i)		Projected NC retail sales for the rate period	Miller Exhibit 6
(ii)		For each measure for which cost recovery is requested through DSM/EE rider:	
(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 Exhibits 10 and 11
(ii)	d.	Expected summer and winter 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 Q. Fields and Fields Exhibits A-G
(iii)	d.	Total summer and winter 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 Q. 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 Q. Fields and Fields Exhibits 6 and 8
(iv)		Determination of utility incentives	Testimony of Casey Q. Fields and Fields Exhibit 1

(v)	Actual revenues from DSM/EE and DSM/EE EMF riders	Miller Exhibit 3
(vi)	Proposed DSM/EE rider	Testimony of Carolyn T. Miller and Miller Exhibit 1
(vii)	Projected NC sales for customers opting out of measures	Miller Exhibit 6
(viii)	Supporting work papers	Digital medium accompanying filing

IV. PROGRAM OVERVIEW

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

A. The Company's vintage 2022 DSM and EE programs are as follows:

RESIDENTIAL CUSTOMER PROGRAMS

- EE Education Program
- Multi-Family EE Program
- MyHER Program
- Neighborhood Energy Saver Program
- Residential Smart $aver EE Program
- New Construction Program
- Load Control Program (EnergyWise)
- Save Energy and Water Kit Program (now part of the EE Appliances and Devices Program)
- Energy Assessment Program
- Low-Income Weatherization Pay for Performance Pilot Program
- Energy Efficient Appliances and Devices Program

NON-RESIDENTIAL CUSTOMER PROGRAMS

- Non-Residential Smart $aver Energy Efficient Products and Assessment Program
- Non-Residential Smart $aver Performance Incentive Program
- Small Business Energy Saver Program
- CIG Demand Response Automation Program
- EnergyWise for Business

COMBINED RESIDENTIAL/NON-RESIDENTIAL PROGRAMS

- Energy Efficient Lighting Program
- DSDR

Q. PLEASE DESCRIBE ANY UPDATES MADE TO THE UNDERLYING ASSUMPTIONS FOR DEP'S PROGRAMS THAT HAVE ALTERED PROJECTIONS FOR VINTAGE 2024.

A. Updates to underlying assumptions that materially impact DEP's 2024 portfolio projection are due to EM&V-related impacts. Additionally, the underlying assumptions in Smart $aver programs and EE Lighting 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 DEP'S ESTIMATED 2024 PROGRAM PORTFOLIO.

A. Changes in the EM&V results were updated to reflect the savings impacts for those programs for which DEP 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-2, Sub 1294. 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 DEP's projected shared savings incentive.

Q. AFTER FACTORING THESE UPDATES INTO DEP'S PROGRAMS FOR VINTAGE 2023, DO THE RESULTS OF DEP'S PROSPECTIVE COST-EFFECTIVENESS TESTS INDICATE THAT IT SHOULD DISCONTINUE OR MODIFY ANY OF ITS PROGRAMS?

A. DEP performed a prospective analysis of each of its programs and the aggregate portfolio for the Vintage 2024 period. The results of this prospective analysis are contained in Fields Exhibit 7. This exhibit shows that all programs pass the Utility Cost Test ("UCT") cost effectiveness threshold of 1.0. This includes programs that did not previously pass, including Neighborhood Energy Saver, Income-Qualified Energy Efficiency and Weatherization, which are income-qualified programs and measures, as well as and EnergyWise for Business. EnergyWise for Business is in its first year of the newly modified program which was designed to increase its cost effectiveness and is in the process of ramping up.

Based on the results of these cost-effectiveness tests, there are no reasons to discontinue any of DEP's programs. Notably, the Company continues to examine its programs for potential modifications to increase their effectiveness, regardless of the current cost-effectiveness results.

V. DSM/EE PROGRAM RESULTS TO DATE

Q. HOW MUCH ENERGY, CAPACITY AND AVOIDED COST SAVINGS DID DEP DELIVER AS A RESULT OF ITS DSM/EE PROGRAMS DURING VINTAGE 2021?

A. During Vintage 2022, DEP's DSM/EE programs delivered 399 million kilowatt hours ("kWh") of energy savings and over 234 megawatts ("MW") of capacity savings, which produced a net present value of avoided cost savings of over $119 million. The 2022 performance results for individual programs are provided in Fields Exhibits 6 and 8.

Q. DID ANY PROGRAMS SIGNIFICANTLY OUT-PERFORM RELATIVE TO THEIR ORIGINAL ESTIMATES FOR VINTAGE 2021?

A. Yes. In the residential market, three programs did significantly out-perform compared to their original energy savings estimates: the Energy Efficient Lighting Program, Residential New Construction and My Home Energy Report. When compared to estimates originally filed for Vintage 2022, the programs exceeded projections by 36 percent, 21 percent and 22 percent, respectively. The increases in both were achieved primarily through changes in participation and EM&V.

Q. HAVE ANY PROGRAMS SIGNIFICANTLY UNDERPERFORMED RELATIVE TO THEIR ORIGINAL ESTIMATES FOR VINTAGE 2022?

A. Yes. 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. Federal baselines changes have also played in impacting programs.

VI. PROJECTED RESULTS

Q. PLEASE PROVIDE A PROJECTION OF THE RESULTS THAT DEP EXPECTS FROM IMPLEMENTING ITS PORTFOLIO OF PROGRAMS.

A. DEP will update the actual and projected DSM/EE achievement levels in its next annual DSM/EE cost recovery 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 the next two years, as well as the associated actual and projected program expenses, are summarized in the table below:

DEP System (NC & SC) DSM/EE Portfolio 2022 Actual Results and 2023-2024 Projected Results			
	2022	2023	2024
Annual System MW	234	359	167
Annual System Net Gigawatt-Hours	399	410	398
Annual Program Costs (Millions)	$71	$96	$81

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. CAN YOU PROVIDE INFORMATION ON THE COMPANY'S EM&V ACTIVITIES?

A. Fields Exhibit 10 summarizes the estimated activities and timeframe for completion of EM&V by program. Fields Exhibit 11 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 completed EM&V reports or updates for the following programs:

Fields Exhibit	EM&V Reports	Report Finalization Date	Effective Date	Evaluation Type
A	EM&V Report for the EnergyWise Home Demand Response Program; Summer 2021	4/1/2022	10/1/2022	Impact
B	Duke Energy Progress & Duke Energy Carolinas Neighborhood Energy Saver Program 2021 Evaluation Report - FINAL	5/11/2022	7/1/2019	Impact and Process
C	EM&V Report for the Duke Energy Small Business Energy Saver Program 2019-2020 (Revised)	6/9/2022	7/1/2020	Impact and Process

D	EM&V Report for the Duke Energy 2020/2021 EnergyWise Business Program (DR)	7/7/2022	10/1/2021	Impact
E	Smart $aver Non-Residential Custom Program Years 2018-2019 Evaluation Report	7/14/2022	8/1/2022	Impact and Process
F	Duke Energy Progress 2022 Non-Profit Low Income Weatherization Pay for Performance Pilot Program Evaluation Report – Final	8/16/2022	1/1/2019	Impact
G	Duke Energy Carolinas & Duke Energy Progress Retail Lighting Program 2022 Evaluation Report - Final	12/5/2022	4/1/2022	Impact and Process
H	EM&V Report for the EnergyWise Home Demand Response Program; Winter 2021/2022	2/1/2023	4/1/2022	Impact
I	Duke Energy Carolinas/Duke Energy Progress Non-Residential Smart $aver® Prescriptive Program Evaluation Report – Final	3/20/2023	1/1/2021	Impact and Process

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

A. The Company has applied EM&V consistent with the Commission's Orders in Docket E-2 Sub 931 on October 20, 2020. The level of EM&V required varies by program and depends upon that program's contribution to the 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. All program impacts from EM&V apply only to the programs for which the analysis was directly performed, though DEP's new product development may utilize actual impacts and research about EE and conservation behavior directly attributed to existing DEP program offerings.

DEP estimates, however, that no additional costs above five 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 of the impact results included in the Company's filing (Fields Exhibits A through I) are based on Carolinas-based EM&V.

VIII. RATE IMPACTS

Q. HAVE THE PARTICIPATION RESULTS AFFECTED THE VINTAGE 2021 EMF?

A. Yes. The EMF accounts for changes to actual participation relative to the forecasted participation levels used in DEP's 2022 DSM/EE rider. As DEP receives actual participation information, it updates the participation-driven actual avoided cost benefits and the net lost revenues derived from its DSM and EE programs. For example, with all other things being equal, for programs that underperform relative to their original participation targets, the EMF will be reduced to reflect lower costs, net lost revenues, and shared savings incentives. On the other hand, higher-than-expected participation in programs causes the EMF to reflect higher program costs, net lost revenues, and shared savings incentives. In addition, the EMF is impacted by the application of EM&V results.

Q. HOW WILL EM&V BE INCORPORATED INTO THE VINTAGE 2022 EMF COMPONENT OF ITS RATES?

A. All of the final EM&V results that were received by DEP as of March 31, 2023 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 DEP has received EM&V results, the per participant impact applied to the projected program participation in Vintage 2024 is based upon the actual EM&V results that have been received.

Q. HAS THE OPT-OUT OF CERTAIN NON-RESIDENTIAL CUSTOMERS AFFECTED THE RESULTS OF APPROVED PROGRAMS?

A. Yes, the opt-out of qualifying non-residential customers has significantly impacted DEP's overall non-residential participation and the associated impacts. For Vintage 2022, DEP had 4,760 eligible customer accounts opt out of participating in DEP's non-residential portfolio of EE programs and had 4,694 eligible customer accounts opt out of participating in DEP's non-residential portfolio of DSM programs. Also during 2022, 60 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. 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. DEP 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 has 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 Progress 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. <u>NET LOST REVENUES</u>

Q. IS DEP REQUESTING RECOVERY OF NET LOST REVENUES FOR ALL OF ITS PROGRAMS?

A. No. At this time, DEP is not requesting recovery of net lost revenues for its DSDR, EnergyWise, or CIG Demand Response Automation programs.

Q. HAS THE COMPANY RECOGNIZED FOUND REVENUES IN ITS CALCULATION OF NET LOST REVENUES?

A. Yes. The recognized found revenues are provided in Fields Exhibit 4.

Q. PLEASE DESCRIBE HOW DEP DETERMINES ITS FOUND REVENUES.

A. Consistent with the Commission's 2020 Mechanism Order, DEP has adopted the "Decision Tree" located in Attachment C of the approved revised cost recovery mechanism. Consistent with the methodology employed by DEP, found revenue activities are identified, categorized, and netted against the net lost revenues created by DEP's EE programs. Found revenues, as calculated, result from DEP's activities that are perceived to directly or indirectly result in an increase in customer demand or energy consumption within DEP's service territory. However, revenues resulting from load-building activities would not be considered found revenues if they (1) would have occurred regardless of DEP'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 DEP to engage in an activity that supports efforts to grow the economy. Additionally, under N.C. Gen. Stat. § 62-3(23)(n) any increases from customer demand or energy consumption associated with transportation electrification shall not constitute found revenues for an electric public utility. DEP also adjusts the calculation of found revenues to account for the impacts of activities outside of DSM/EE programs that it undertakes that reduce customer consumption – i.e., "negative found revenues." Based on the results of this work, all potential found revenue-related activities are identified and categorized in Fields Exhibit 4.

Q. PLEASE DISCUSS DEP'S ADJUSTMENT TO ITS FOUND REVENUE CALCULATION TO ACCOUNT FOR NEGATIVE FOUND REVENUES.

A. DEP continues to aggressively pursue, with its outdoor lighting customers, the replacement of aging Mercury Vapor lights with Light Emitting Diode ("LED") fixtures. By moving customers past the standard High-Pressure Sodium ("HPS") fixture to an LED fixture in this replacement process, DEP is generating significant energy savings. Because they come outside of DEP's EE programs, these energy savings are not captured in DEP's calculation of lost revenues. One of the activities that DEP includes in the calculation of found revenues is the increase in consumption from new outdoor lighting fixtures added by DEP; accordingly, it is logical and symmetrical to count the energy consumption reduction realized in outdoor lighting efficiency upgrades. The Company does not take credit for the entire efficiency gain from replacing Mercury Vapor lights, but rather takes credit only from the efficiency gain from replacing HPS with LED fixtures. Also, DEP has not recognized any negative found revenues in excess of the found revenues calculated; in other words, the net found revenues number will never be negative and have the effect of increasing net lost revenue calculations.

X. PPI AND PRI CALCULATIONS

Q. PLEASE PROVIDE AN OVERVIEW OF THE SHARED SAVINGS RECOVERY MECHANISM APPROVED IN THE COMMISSION'S 2020 MECHANISM ORDER.

A. Pursuant to the Commission's 2020 Mechanism Order, for Vintage Year 2017 and subsequent vintage years, DEP's revised cost recovery mechanism allows it 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 DSM and EE programs; and (3) earn a PPI based upon the sharing of a percentage of the net savings achieved through DEP's DSM/EE programs on an annual basis. Prior to 2022, the shared savings percentage was 11.5 percent; starting in 2022, this percentage is lowered to 10.6 percent. The PPI is also subject to certain limitations that are set forth in the Cost Recovery and Incentive Mechanism consistent with the Commission's Orders in Docket No. E-2 Sub 931.

Q. PLEASE EXPLAIN HOW DEP DETERMINES THE PPI.

A. First, DEP determines the net savings eligible for incentive by subtracting the present value of the annual lifetime DSM/EE program costs (excluding approved low-income programs as described below) from the net present value of the annual lifetime avoided costs achieved through the Company's programs (again, excluding approved low-income programs). Estimated net savings for all periods are determined by multiplying the number of measurement units projected to be installed for a specific program or measure in a vintage year by the most current estimate of the annual per installation kilowatt ("kW") and kilowatt-hour ("kWh") savings over the measurement unit's life and by the annual kW and kWh avoided costs. DEP then subtracts the estimated utility costs over the measurement unit's life related to the projected installations in that vintage year and discounts the result to determine a net present value. The Company then multiplies the net savings eligible for incentive by the applicable shared savings percentage, or PPI, to determine its pre-tax incentive.

The PPI for each program vintage is converted into a stream of up to ten levelized annual payments. DEP's overall weighted average net-of-tax rate of return approved in DEP's most recent general rate case is used as the appropriate discount rate. Pursuant to the *2020 Mechanism Order*, PPI recoveries are subject to true-up on the basis of future EM&V results. PPI calculations are based on calendar year vintages. The PPI vintage assigned to the test period in this filing encompasses calendar year 2022. These values will be trued-up on the basis of future EM&V results. The estimated PPI for the rate period used in this filing is based on calendar year 2024 and will be trued-up as a part of DEP's 2024 DSM/EE cost recovery proceeding.

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

A. Consistent with the Commission's Orders in Docket No. E-2 Sub 931, DEP has excluded the impacts and costs associated with the Neighborhood Energy Saver Program and the EE Education Program from its calculation of the PPI. At the time these programs were approved, they were not cost-effective, but were instead approved based on their societal benefit. Beginning in 2022, the Weatherization Pilot, Neighborhood Energy Saver and EE Education programs are eligible to receive a program return incentive ("PRI").

Q. PLEASE EXPLAIN HOW DEP 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.

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, the review of the 2021 Avoided T&D Study was completed after numerous meetings and discussions between DEP and the Public Staff.

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.