PLACE: Via Videoconference

DATE: Tuesday, September 21, 2021

TIME: 1:30 p.m - 2:40 p.m.

DOCKET NO: E-2, Sub 1273

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding
Chair Charlotte A. Mitchell
Commissioner Lyons Gray
Commissioner Daniel G. Clodfelter
Commissioner Kimberly W. Duffley
Commissioner Jeffrey A. Hughes
Commissioner Floyd B. McKissick, Jr.

IN THE MATTER OF:

Application of Duke Energy Progress, LLC, Pursuant to N.C.G.S. § 62-133.9 and Commission Rule R8-69 for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider

VOLUME: 2

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T A B L E   O F   C O N T E N T S

E X A M I N A T I O N S

E X H I B I T S

P R O C E E D I N G S:

COMMISSIONER BROWN-BLAND: Good afternoon. Let's come to order and go on the record. I am Commissioner ToNola D. Brown-Bland with the North Carolina Utilities Commission, Presiding Commissioner for this hearing.

With me this afternoon are: Chair Charlotte A. Mitchell, and Commissioners Lyons Gray, Daniel G. Clodfelter, Kimberly W. Duffley, Jeffrey A.

I now call for hearing Docket Number E-2, Sub 1273, In the Matter of Application of Duke Energy Progress, LLC's annual review for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider, Pursuant to G.S. 62-133.9 and Commission Rule R8-69.

G.S. 62-133.9 establishes the procedure for cost recovery of Demand-Side Management hereafter, DSM and Energy Efficiency hereafter EE expenditures. G.S. 62-133.9(d) provides for an annual DSM/EE Rider for electric public utilities to recover all reasonable and prudent costs incurred and appropriate incentives for adoption and implementation of new DSM and EE measures.

On June 15th, 2021, Duke Energy Progress, LLC, hereafter, (DEP or Applicant) filed its application for approval of the DSM and EE Cost Recovery Rider pursuant to G.S. 62-133.9 along with the direct testimony and exhibits of Robert P. Evans and Shannon R. Listebarger in support of the application.

On July 7th, 2021, the Commission issued an order scheduling hearing requiring filing of testimony, establishing discovery guidelines, and requiring public notice.

The Order scheduled the hearing in this docket for today, Tuesday, September 21, 2021 at 10:00 a.m. following the hearing in DEP's annual fuel charge adjustment proceeding.

Based on timely petitions to intervene in this docket, the following parties were allowed to intervene by Order of the Commission:
North Carolina Sustainable Energy Association, NCSEA, Carolina Utility Customer's Association, Inc., CUCA, Carolina Industrial Group for Fair Utility Rates II, (CIGFUR II), and jointly the Southern Alliance for Clean Energy.

The North Carolina Justice Center and the North Carolina Housing Coalition, hereafter the Joint

Intervenors. The intervention and participation of the Public Staff was recognized pursuant to G.S. 62-15(d) and Commission Rule R1-19(e).

On August 11th, 2021, DEP filed a supplemental direct testimony of Robert P. Evans. On August 26, 2020, the Public Staff filed the testimony exhibits of Michael C. Maness and David M. Williamson.

On August 31st, 2021, the Chair of the Commission issued an Order scheduling remote hearings, noting that the public hearing portion of this proceeding and the other annual Rider proceedings would be held as initially scheduled and noticed at 10:00 a.m. in the Commission hearing room, but that the expert witness hearing in this docket would be held remotely by the Webex platform following the expert witness hearing, the Company's Fuel Adjustment proceeding scheduled to begin at 10:30 a.m.

The Order required all parties to file a consent to remote hearings, which all parties to this proceeding have done.

On September 16th 2021, DEP filed rebuttal testimony and exhibits of Robert P. Evans and Lynda Sleigher Shafer.

On September 17th, 2021, DEP and the Public Staff filed a joint motion to excuse certain witnesses from the expert hearing, and DEP filed their

Also on September 17th, the Commission issued an order changing the time for the expert witness hearing in DEP's annual rider proceedings, which include this proceeding; and therefore, this proceeding is set for 1:30 p.m., which is the time that we all gathered here.

On September 20, 2021, Presiding Commissioner granted the Movant's motion to excuse DEP witness Shannon R. Listebarger and Public Staff witness Michael C. Maness, and provided that the excused witness's testimony and exhibits would be received into evidence at this hearing.

On September 20, 2021, DEP filed affidavits of publication of public notice in compliance with the Commission's order.

In compliance with the requirement of Chapter 163(a) of the State Government Ethics Act, I remind the Members of the Commission of our responsibility to avoid conflicts of interest, and I inquire, at this time, whether any Member has any known conflict of interest with respect to the matter before us at this time.

(No response)

COMMISSIONER BROWN-BLAND: The record will reflect that no conflicts have been identified. I now call for appearances of counsel, beginning with the Applicant.

MS. FENTRESS: Good afternoon, Madam Chair and Commissioners. My name is Kendrick Fentress. I'm appearing on behalf of Duke Energy Progress.

COMMISSIONER BROWN-BLAND: Glad you could finally get here, Ms. Fentress.

MS. FENTRESS: Me too.

COMMISSIONER BROWN-BLAND: I'll move to the Intervenors, the Joint Intervenors.

MR. MOORE: Good afternoon, Commissioner Brown-Bland. This is Tirrill Moore appearing on behalf of the North Carolina Justice Center, the North Carolina Housing Coalition, and the Southern Alliance For Clean Energy. I'm joined today by David Neal as well.

COMMISSIONER BROWN-BLAND: Welcome, Mr. Moore and Mr. Neal. Mr. Moore, you were a little bit choppy on the audio, so just watch that for me. And CIGFUR?

MS. CRESS: Yes. Good afternoon, Commissioner Brown-Bland. This is Christina Cress appearing for CIGFUR II.

COMMISSIONER BROWN-BLAND: Good afternoon. The NCSEA? NCSEA not in attendance. CUCA?

MR. SCHAUER: Good afternoon. Craig Schauer appearing on behalf of CUCA.

COMMISSIONER BROWN-BLAND: Thank you, Mr. Schauer. And Public Staff?

MS. LUHR: Good afternoon. This is Nadia Luhr with the Public Staff, appearing on behalf the Use and Consuming Public.

COMMISSIONER BROWN-BLAND: Is there anyone else needing to make an appearance? I see, for the record, that the Commission was informed that NCSEA could not be present today due to a conflict. Are there any preliminary matters that need to be addressed prior to the beginning of the hearing?

COMMISSIONER CLODFELTER: Commissioner Brown-Bland?

COMMISSIONER BROWN-BLAND: Yes. Who's speaking?

COMMISSIONER CLODFELTER: Ms. Fentress, if you could lower the blinds behind you, we might be able to see your face better.

MS. FENTRESS: Thank you. We'll take care of that. Is that better?

COMMISSIONER BROWN-BLAND: Pretty much. Thank you. Thank you for that, Commissioner Clodfelter. There being no preliminary matters, we'll go ahead, and the case is with the Applicant.

MS. FENTRESS: Thank you, Commissioner Brown-Bland. We would like to begin by calling Bob Evans to the stand.

MR. EVANS: I'm going to try to move this to peter away so we could -- so it gets both of us into the picture.

COMMISSIONER BROWN-BLAND: We see you both. Thank you.

MR. EVANS: Okay. Thank you.

MS. FENTRESS: I call Mr. Evans to the stand for his direct testimony.

COMMISSIONER BROWN-BLAND: Thank you, Ms. Fentress.

MS. FENTRESS: And also Ms. Shafer for rebuttal.

ROBERT P. EVANS;

having been duly affirmed,

testified as follows:

COMMISSIONER BROWN-BLAND: Ms. Fentress.

MS. FENTRESS: Thank you.

DIRECT-EXAMINATION BY MS. FENTRESS:

Q Mr. Evans, can you state your name and business address, for the record, please.

A My name is Robert P. Evans, and my business addressing 410 South Wilmington Street in Raleigh, N.C. 27601.

Q And Mr. Evans, did you cause to be prefiled--oh, I'm sorry. Can you state your position at Duke Energy?

A Sure. I'm employed by Duke Energy Corporation as Senior Manager, Strategy and Collaboration in the Carolinas and its Integrated Grid Strategy and Solutions Group.

Q Thank you. And Mr. Evans, did you cause to be filed, in this case, on June 15th, 2021 direct testimony of 27 pages and Exhibits 1 through 12 and A through D?

A Yes, I did.

Q And Mr. Evans, did you also cause to be prefiled, on August 11th, 2021, supplemental testimony of three pages and Supplemental Exhibit E?

A Yes.
Q Do you have any changes or corrections to your prefiled direct testimony?
A No, I do not.
Q Do you have any changes or corrections to your prefiled supplemental testimony?
A No changes.
Q And if I were to ask you the same questions as written in your prefiled direct testimony today, on the stand, would your answers be the same?
A Yes, they would be.
Q And if I were to ask you the same questions in your prefiled direct testimony today, would your answers be the same?
A They would be the same.

MS. FENTRESS: Madam Chair, I would ask that Mr. Evans' prefiled direct and supplemental testimony, and exhibits, be entered into the record as if given orally from the stand.

COMMISSIONER BROWN-BLAND: That motion will be allowed, and Mr. Evans' direct prefiled and supplemental direct prefiled testimony will be received into the record as if given orally from the witness stand, and the exhibits will be marked as they were identified when prefiled or identified if they were marked when prefiled.

MS. FENTRESS: Thank you.

(WHEREUPON, Evans Exhibits 1-12 and Evans Exhibits A-D and Evans Supplemental Exhibit E are marked for identification as prefiled.)

(WHEREUPON, the prefiled direct and direct supplemental testimony of ROBERT P. EVANS is copied into the record as if given orally from the stand.)

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1273

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

## I. INTRODUCTION AND PURPOSE

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

A. My name is Robert P. Evans, and my business address is 410 S. Wilmington Street, Raleigh, North Carolina 27601. I am employed by Duke Energy Corporation ("Duke Energy") as Senior Manager-Strategy and Collaboration for the Carolinas in the Integrated Grid Strategy & Solutions group.

**Q. PLEASE BRIEFLY STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

A. I graduated from Iowa State University ("ISU") in 1978 with a Bachelor of Science Degree in Industrial Administration and a minor in Industrial Engineering. As a part of my undergraduate work, I participated in graduate level regulatory studies programs sponsored by American Telephone and Telegraph Corporation, as well as graduate level study programs in Engineering Economics. Subsequent to my graduation from ISU, I received additional Engineering Economics training at the Colorado School of Mines, completed the National Association of Regulatory Utility Commissioners Regulatory Studies program at Michigan State, and completed the Advanced American Gas Association Ratemaking program at the University of Maryland. Upon graduation from ISU, I joined the Iowa State Commerce Commission (now known as the Iowa Utility Board ("IUB")) in the Rates and Tariffs Section of the Utilities Division. During my tenure with the IUB, I held several positions, including Senior Rate Analyst in charge of Utility Rates and Tariffs and

Assistant Director of the Utility Division. In those positions, I provided testimony in gas, electric, water, and telecommunications proceedings as an expert witness in the areas of rate design, service rules, and tariff applications. In 1982, I accepted employment with City Utilities of Springfield, Missouri, as an Operations Analyst. In that capacity, I provided support for rate-related matters associated with the municipal utility's gas, electric, water, and sewer operations. In addition, I worked closely with its load management and energy conservation programs. In 1983, I joined the Rate Services staff of the Iowa Power and Light Company, now known as MidAmerican Energy, as a Rate Engineer. In this position, I was responsible for the preparation of rate-related filings and presented testimony on rate design, service rules, and accounting issues before the IUB. In 1986, I accepted employment with Tennessee-Virginia Energy Corporation (now known as the United Cities Division of Atmos Energy) as Director of Rates and Regulatory Affairs. While in this position, I was responsible for regulatory filings, regulatory relations, and customer billing. In 1987, I went to work for the Virginia State Corporation Commission in the Division of Energy Regulation as a Utilities Specialist. In this capacity, I worked on electric and natural gas issues and provided testimony on cost of service and rate design matters brought before that regulatory body. In 1988, I joined North Carolina Natural Gas Corporation ("NCNG") as its Manager of Rates and Budgets. Subsequently, I was promoted to Director-Statistical Services in NCNG's Planning and Regulatory Compliance Department. In that position, I performed a variety of work associated with financial, regulatory, and statistical analysis and presented testimony on several issues brought before the North Carolina Utilities Commission ("Commission"). I held that position until the closing of NCNG's merger with Carolina Power and Light Company, the predecessor of Progress Energy, Inc. ("Progress"), on July 15, 1999.

From July 1999 through January 2008, I was employed in Principal and Senior Analyst roles by the Progress Energy Service Company, LLC. In these roles, I provided NCNG, Progress Energy Carolinas, Inc. (now Duke Energy Progress, LLC ("DEP" or the "Company")), and Progress Energy Florida, Inc. with rate and regulatory support in their state and federal venues. From 2008 through the merger of Duke Energy and Progress, I provided regulatory support for demand-side management ("DSM") and energy efficiency ("EE") programs. Subsequent to the Progress merger with Duke Energy, I obtained my current position.

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

A. Yes. I have provided testimony to this Commission in matters concerning revenue requirements, avoided costs, cost of service, rate design, and the recovery of costs associated with DSM/EE programs and related accounting matters.

**Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?**

A. I am responsible for the regulatory support of DSM/EE programs in North Carolina for both DEP and Duke Energy Carolinas, LLC ("DEC").

**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 provides: (1) a discussion of items the Commission specifically directed the Company to address in this proceeding; (2) an overview of the Commission's Rule R8-69 filing requirements; (3) a synopsis of the DSM/EE programs included in this filing; (4) a discussion of program results; (5) an explanation of how these results have affected DSM/EE rate calculations; (6) information on DEP's Evaluation Measurement & Verification ("EM&V") activities; and (7) an overview of the calculation of the Portfolio Performance Incentive ("PPI").

**Q. PLEASE DESCRIBE THE EXHIBITS ATTACHED TO YOUR TESTIMONY.**

A. Evans Exhibit 1 supplies load impacts, program costs, and avoided costs for each program, which are used in the calculation of the PPI and revenue requirements by vintage. Evans Exhibit 2 contains a summary of net lost revenues for the period January 1, 2017 through December 31, 2022. Evans Exhibit 3 contains the actual program costs for North Carolina for the period January 1, 2016 through December 31, 2020. Evans Exhibit 4 contains the found revenues used in the net lost revenues calculations. Evans Exhibit 5 supplies evaluations of event-based programs. Evans Exhibit 6 contains information about the results of DEP's programs and a comparison of actual impacts to previous estimates. Evans Exhibit 7 contains the projected program and portfolio cost-effectiveness results for DEP's approved programs. Evans Exhibit 8 contains a summary of 2020 program performance and an explanation of the variances between the expected program results and the actual results. Evans Exhibit 8 is designed to create more transparency regarding the factors that have driven these variances. Evans 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). Evans Exhibit 10 provides a summary of the estimated activities and timeframe for completion of EM&V by program. Evans Exhibit 11 provides the actual and expected dates when the EM&V for each program or measure will become effective. Evans Exhibit 12 provides a table showing program cost and avoided costs savings for the test period ending December 31, 2020 and for the previous five test periods.

Evans Exhibits A through D provide detailed EM&V reports, completed or updated since DEP's DSM/EE Cost Recovery Rider Filing in Docket No. E-2, Sub 1252, for the following programs: Revised Save Energy and Water Kits 2018–2019 (Evans Exhibit A); Multi-Family Energy Efficiency Program 2017 – 2018/19 (Evans Exhibit B); Non-Residential Smart $aver Prescriptive Program Evaluation Report 2017 - 2018 (Evans Exhibit C); and 2020 EM&V Interim Report for the EnergyWise Business Program (Evans Exhibit D).

**Q. WERE EVANS EXHIBITS 1-12 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 1252.**

A. In its December 17, 2020 *Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice* in Docket No. E-2, Sub 1252 ("Sub 1252 Order"), the Commission ordered that: (1) DEP shall continue to leverage its Collaborative to discuss the EM&V issues and program design issues raised in the testimony of North Carolina Justice Center, et al. witness Bradley-Wright and those discussions shall be reported; (2) That DEP and the Collaborative shall discuss the issue of an appropriate way to reflect the full avoided capacity of its EE programs including avoided reserve capacity and present those findings to the Commission; and (3) That continuing in 2021, the combined DEC/DEP Collaborative shall meet every other month. In addition, the Commission directed DEP to provide it with other information that will be covered later in my testimony.

**Q. DID DEP CONTINUE TO LEVERAGE THE COLLABORATIVE TO DISCUSS ISSUES RAISED BY WITNESS BRADLEY-WRIGHT?**

A. Yes. The Collaborative met for formal meetings in January, March, May, July, September and November. Between meetings, interested stakeholders joined conference calls in February, April, May, August, October, and December to zero in on certain agenda items or priorities that could not be fully explored during the regular meetings.

**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. The forecasted decline in savings underpinned all the Collaborative's discussions in 2020. Since the decline is attributed primarily to the changing lighting standards and widespread adoption of LEDs, the members made bringing the Company new program ideas a priority. The Company is actively investigating several of those ideas to determine if they can be developed into cost-effective programs now or in the future.

**Q. HAS THE COLLABORATIVE LOOKED SPECIFICALLY AT EE PROGRAMS TO ASSIST LOW-INCOME CUSTOMERS IN SAVING ENERGY, PARTICULARLY IN LIGHT OF THE FINANCIAL HARDSHIPS CREATED BY THE ONGOING PANDEMIC?**

A. Yes, the Collaborative has suggested several ideas for expanding or modifying our current programs to assist low-income households. Members have helped to develop partnerships with organizations that provide weatherization assistance and have expressed interest in exploring more opportunities in the coming year. Several of the program ideas they submitted have aspects that can target low-income customers as well.

The Collaborative spent time last year looking specifically at each program and how it could adapt to the challenges presented by the pandemic. The group will continue to examine customer behaviors and potential adjustments to the program portfolio as conditions change.

**Q. DID DEP AND THE COLLABORATIVE DISCUSS THE ISSUE OF AN APPROPRIATE WAY TO REFLECT THE FULL AVOIDED CAPACITY INCLUDING AVOIDED RESERVE CAPACITY?**

A. Yes. At its January 29th Collaborative Meeting, the Company shared its proposed methodology to calculate the Reserve Margin Adjustment Factor ("RMAF") to be applied to Vintage 2022, as well as the underlying facts substantiating the amount. No parties voiced disagreement with the proposed RMAF or the factual substantiation for the RMAF.

**Q. IS THE COMPANY PROPOSING TO APPLY A RESERVE MARGIN ADJUSTMENT FACTOR TO THE AVOIDED CAPACITY VALUES ASSOCIATED WITH ENERGY EFFICIENCY SAVINGS IN ITS APPLICATION?**

A. Yes.

**Q. WHAT INFORMATION DOES THE COMPANY BELIEVE SUBSTANTIATES THE RMAF THAT IT IS PROPOSING TO APPLY TO THE 2022 AVOIDED CAPACITY ASSOCIATED WITH ENERGY EFFICIENCY SAVINGS?**

A. The Company believes that the following four facts substantiate and support the RMAF that it is proposing be applied to the capacity savings associated with energy efficiency savings in the projection of Vintage 2022.

1. The Company's Integrated Resource Plan included a 17% reserve margin to be applied to supply-side resources.
2. EE measures included in the Company's DSM portfolio are assigned Peak kilowatt ("KW") reductions, subject to validation through routine EM&V.
3. The Avoided Capacity Rate to be applied in the valuation of these Peak KW reductions complies with the methodology approved in the 2020 Sub 1032 Order, issued on October 20, 2020.
4. The approved Avoided Capacity Rate as described above includes a Performance Adjustment Factor ("PAF") of 1.05, and the PAF is intended to represent an estimated Equivalent Forced Outage Rate ("EFOR").

**Q. GIVEN THESE FACTS, WHAT IS THE MAGNITUDE OF THE RMAF THAT THE COMPANY IS PROPOSING BE APPLIED TO ITS PROJECTION OF VINTAGE 2022?**

A. The Company is proposing to apply an 11.429% RMAF to the capacity savings associated with energy efficiency programs.

**Q. CONTINUING IN 2021, WILL THE DEC/DEP COLLABORATIVE MEET EVERY OTHER MONTH?**

A. Yes.

**Q. DID THE COMMISSION DIRECT THE COMPANY TO PROVIDE INFORMATION ON ANY OTHER ITEMS?**

A. In addition to the ordered items, the Commission requested additional information on a variety of topics.

**Q. HAS THE COMPANY ANALYZED THE COST-EFFECTIVENESS SCORES FOR ITS DISTRIBUTION SYSTEM DEMAND RESPONSE ("DSDR") PROGRAM?**

A. Yes. The Company has determined that the TRC and UCT cost-effectiveness scores are both 1.121. In addition, the present value of DSDR Program net benefits is approximately $36,626,000.

**Q. HAS THE COMPANY MADE ANY CHANGES TO ITS ANNUAL RATIOS OF ALLOCATIONS BETWEEN DSDR AND NON-DSDR EQUIPMENT?**

A. Yes. The Company reviews the allocation ratios annually each summer and implements any necessary updates the following year. The Company reviewed 2019 units during the summer of 2020 and determined that the capacitor allocation ratio should be reduced from 20.48 to 20.35 percent, and the allocation ratio applied to regulators was reduced from 78.56 to 77.64 percent. The 2020 units will be reviewed this summer, and any further changes will be communicated to the Public Staff and implemented on January 1, 2022.

**Q. PLEASE EXPLAIN HOW THE COMPANY WILL DISTINGUISH PEAK DEMAND AND ENERGY SAVINGS BETWEEN THE GRID IMPROVEMENT PROGRAM ("GIP") AND DSM/EE PROGRAMS.**

A. As GIP is implemented, any impacts on DSM/EE programs will show up in the individual DSM and EE program EM&V results. The EM&V process is important as the GIP's impacts could vary by type of measure and, as such, from program to program. Only the DEP DSDR to Conservation Voltage Reduction ("CVR") Conversion program within the GIP is anticipated to result in demand and energy savings impacts.

In response to the Commission's April 16, 2021 *Order Accepting Stipulations, Granting Partial Increase and Requiring Customer Notice* in Docket No. E-2, Sub 1219, the Company is working to (1) determine the amount of peak reduction capacity that will be lost due to the conversion and propose a method of replacing that lost capacity in Docket No. E-100, Sub 165 (the Integrated Resource Plan or "IRP" docket); (2) file in the IRP docket and Docket No. E-2, Sub 926 (Sub 926) a revised DSDR-to-CVR conversion cost-benefit analysis that incorporates the cost of replacing any lost peak reduction capacity; and (3) file an updated report in the IRP docket and Sub 926 that estimates CVR's anticipated capital and O&M costs, peak reduction, and energy savings for the next 10 years. DEP plans to file this information by August 1, 2021.

**Q. PLEASE PROVIDE A LIST OF GIP PROJECTS THAT HAVE BEEN IMPLEMENTED AND EXPLAIN HOW THOSE PROJECTS HAVE AFFECTED THE PERFORMANCE OF THE COMPANY'S DSM/EE PORTFOLIO.**

A. In 2020, the Company began a programmatic approach to implementing the GIP projects. Of the various components associated with the GIP, only the DSDR to CVR Conversion program is anticipated to impact the performance of the Company's DSM/EE portfolio. Since the DSDR to CVR Conversion program has not yet occurred, there is no effect on the performance of the Company's DSM/EE portfolio at this time.

The Capacity component of the Self Optimized Grid ("SOG") program includes reconductoring power lines to larger size wires to accommodate two-way power flow. An additional benefit of this upgrade includes reduced line losses on the distribution circuitry. Those efficiencies from SOG along with efficiencies gained from other maintenance activities on the distribution system are captured in periodic line loss studies. DSM/EE uses the line loss in its analysis; therefore, SOG creates no additional impact.

**Q. DID THE COMPANY FILE A CORRECTED EM&V ANALYSIS OF ITS SAVE ENERGY AND WATER KIT MEASURES?**

A. Yes. A revised Save Energy and Water Kit evaluation report was submitted with this filing as Evans Exhibit A.

**Q. WHAT ACTIONS ARE BEING TAKEN TO MAINTAIN OR IMPROVE THE COST EFFECTIVENESS OF THE COMPANY'S RESIDENTIAL SMART SAVER PROGRAM?**

A. In its efforts to maintain the cost effectiveness of this program, the Company will further differentiate between referred and non-referred measures. This differentiation will impact incentives and will be implemented with input from the Collaborative using existing flexibility guidelines.

## 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 Shannon R. Listebarger as follows:

| R8-69(f)(1) | | Items | Location in Testimony |
|---|---|---|---|
| (i) | | Projected NC retail sales for the rate period | Listebarger 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 | Evans Exhibit 1 |
| (ii) | b. | Total costs savings directly attributable to measures | Evans Exhibit 1 |
| (ii) | c. | EM&V activities for the rate period | Evans Exhibit 10 and 11 |
| (ii) | d. | Expected summer and winter peak demand reductions | Evans Exhibit 1 |
| (ii) | e. | Expected energy reductions | Evans 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 | Evans Exhibit 3 |
| (iii) | b. | Total avoided costs for the test period in the aggregate and broken down by type of expenditure, unit, and jurisdiction | Evans Exhibit 1 |
| (iii) | c. | Description of results from EM&V activities | Testimony of Robert Evans and Evans Exhibits A-D |
| (iii) | d. | Total summer and winter peak demand reductions in the aggregate and broken down per program | Evans Exhibit 1 |
| (iii) | e. | Total energy reduction in the aggregate and broken down per program | Evans Exhibit 1 |
| (iii) | f. | Discussion of findings and results of programs | Testimony of Robert Evans and Evans Exhibit 6 |
| (iii) | g. | Evaluations of event-based programs | Evans Exhibit 5 |
| (iii) | h. | Comparison of impact estimates from previous year and explanation of significant differences | Testimony of Robert Evans and Evans Exhibits 6 and 8 |
| (iv) | | Determination of utility incentives | Testimony of Robert Evans and Evans Exhibit 1 |

| | | |
|---|---|---|
| (v) | Actual revenues from DSM/EE and DSM/EE EMF riders | Listebarger Exhibit 3 |
| (vi) | Proposed DSM/EE rider | Testimony of Shannon Listebarger and Listebarger Exhibit 1 |
| (vii) | Projected NC sales for customers opting out of measures | Listebarger 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 current DSM and EE programs are as follows:

**RESIDENTIAL CUSTOMER PROGRAMS**

- EE Education Program
- Multi-Family EE Program
- My Home Energy Report 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 2022.**

A. EM&V results were used to update the savings impacts for those programs for which DEP received EM&V results after it prepared its application in Sub 1206. Updating programs for EM&V results changes the projected avoided cost benefits associated with the projected participation and, hence, impacts the calculation of the specific program and overall portfolio cost-effectiveness, as well as the calculation of DEP's projected shared savings incentive.

**Q. AFTER FACTORING THESE UPDATES INTO DEP'S PROGRAMS FOR VINTAGE 2022, 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 2022 period. The results of this prospective analysis are contained in Evans Exhibit 7. This exhibit shows that three programs do not pass the TRC threshold of 1.0. These programs are: (1) the Neighborhood Energy Saver Program, which was not cost-effective at the time of Commission approval (but was approved based on its societal benefits); (2) the Low-Income Weatherization Pay for Performance Pilot Program; and (3) the EnergyWise for Business Program. In the aggregate, DEP's portfolio of programs continues to project cost-effectiveness.

The cost-effectiveness of the EnergyWise for Business Program is obviously a concern for the Company with its 0.28 UCT score. Due to its performance, the EnergyWise for Business program is being placed in a maintenance mode where the Company will maintain the current level of capacity only by replacing lost customers.

## 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 2020?**

A. During Vintage 2020, DEP's DSM/EE programs delivered almost 355 million kilowatt hours ("kWh") of energy savings and over to 314 megawatts ("MW") of capacity savings, which produced a net present value of avoided cost savings of over to $136 million. The 2020 performance results for individual programs are provided in Evans Exhibits 6 and 8.

**Q. DID ANY PROGRAMS SIGNIFICANTLY OUT-PERFORM RELATIVE TO THEIR ORIGINAL ESTIMATES FOR VINTAGE 2020?**

A. Yes. In the residential market, two programs did significantly out-perform compared to their original energy savings estimates: the Energy Efficient Lighting Program and the Residential My Home Energy Report Program. When compared to estimates originally filed for Vintage 2020, the programs exceeded projections by 111 percent and 34 percent, respectively. The Energy Efficient Lighting Program achieved increases primarily through changes in participation. The increase in the My Home Energy Report Program resulted from changes in EM&V related increased savings.

The non-residential program with the largest percentage increase in expected energy savings from those forecasted for 2020 is the EnergyWise for Business Program. This program produced energy savings that exceeded DEP's projections by 904 percent. The difference is primarily associated with EM&V results.

**Q. HAVE ANY PROGRAMS SIGNIFICANTLY UNDERPERFORMED RELATIVE TO THEIR ORIGINAL ESTIMATES FOR VINTAGE 2020?**

A. Yes. During 2020, most programs underperformed due to the COVID pandemic.

## VI. PROJECTED RESULTS

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

A. DEP will update the actual and projected DSM/EE achievement levels in its 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 2020 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 2020 Actual Results and 2021-2022 Projected Results | | | |
|---|---|---|---|
| | 2020 | 2021 | 2022 |
| Annual System MW | 314 | 473 | 415 |
| Annual System Net Gigawatt-Hours | 355 | 446 | 462 |
| Annual Program Costs (Millions) | $84 | $98 | $105 |

## VII. EM&V ACTIVITIES

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

A. Yes. Evans Exhibit 10 provides a summary of the estimated activities and timeframe for completion of EM&V by program. Evans Exhibit 11 provides the actual and expected dates of when the EM&V for each program or measure will become effective. Evans Exhibits A through D provide the completed EM&V reports or updates for the following programs:

| Evans Exhibit | EM&V Reports | Report Finalization Date |
|---|---|---|
| A | Save Energy and Water Kits 2018 – 2019 (Revised) | 04/23/2020 |
| B | Multi-Family Energy Efficiency Program 2017 – 2018/19 | 4/16/2020 |

| Evans Exhibit | EM&V Reports | Report Finalization Date |
|---|---|---|
| C | Non-Residential Smart $aver Prescriptive Program Evaluation Report 2017 - 2018 | 07/16/2020 |
| D | 2020 EM&V Interim Report for the EnergyWise Business Program | 02/05/2021 |

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

A. The Company has applied EM&V in accordance with the process approved by the Commission in its *Order Approving Revised Cost Recovery Mechanism and Granting Waivers,* issued January 20, 2015 in Docket No. E-2, Sub 931 ("Order Approving Revised Mechanism").

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. 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 (Evans Exhibits A through D) are based on Carolinas-based EM&V.

## VIII. <u>RATE IMPACTS</u>

**Q. HAVE THE PARTICIPATION RESULTS AFFECTED THE VINTAGE 2020 EMF?**

A. Yes. The EMF accounts for changes to actual participation relative to the forecasted participation levels utilized in DEP's 2020 DSM/EE rider. As DEP receives actual participation information, it is then able to update 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 2020 EMF COMPONENT OF ITS RATES?**

A. All of the final EM&V results that were received by DEP as of December 31, 2020 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 2022 is based upon the actual EM&V results that have been received.

**Q. HAS THE OPT-OUT OF 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 2020, DEP had 5,233 eligible customer accounts opt out of participating in DEP's non-residential portfolio of EE programs and had 5,441 eligible customer accounts opt out of participating in DEP's non-residential portfolio of DSM programs. This is a decrease from the 5,868 EE accounts and 5,759 DSM opt-outs reported for 2019. Also during 2020, 23 opt-out eligible accounts opted-in to the EE portion of the Rider, and 6 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 very important to the Company. DEP continues to evaluate and revise its non-residential programs to accommodate new technologies, eliminate product gaps, remove barriers to participation, and make its programs more attractive. The Company also continues to leverage its Large Account Management Team to make sure customers are informed about product offerings.

## 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 Evans Exhibit 4.

**Q. PLEASE DESCRIBE HOW DEP DETERMINES ITS FOUND REVENUES.**

A. Consistent with the Commission's Order Approving Revised Mechanism, 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 Evans Exhibit 4.

**Q. PLEASE DISCUSS THE ADJUSTMENT THAT DEP MAKES 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 ORDER APPROVING REVISED MECHANISM.**

A. Pursuant to the Commission's Order Approving Revised Mechanism, 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 is 11.5% and starting in 2022, this percentage is lowered to 10.6%. The PPI is also subject to certain limitations that are set forth in the Cost Recovery and Incentive Mechanism.

**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). The Company then multiplies the net savings eligible for incentive by the applicable shared savings percentage to determine its pre-tax incentive.

**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 approved based on their societal benefit. Beginning in 2022, the Income-Qualified EE and EE Education programs are eligible to receive a program return incentive ("PRI"). 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 Cost Recovery and Incentive Mechanism approved by the Commission in Docket No. E-2, Sub 931 on October 20, 2020.

## XI. CONCLUSION

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

A. Yes.

**STATE OF NORTH CAROLINA**
**UTILITIES COMMISSION**
**RALEIGH**

DOCKET NO. E-2, SUB 1273

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

**Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

A. My name is Robert P. Evans. My business address is 410 South Wilmington Street, Raleigh, North Carolina.

**Q. BY WHOM ARE YOU EMPLOYED AND IN WHAT CAPACITY?**

A. I am employed by Duke Energy Corporation ("Duke Energy") as Senior Manager-Strategy and Collaboration for the Carolinas in the Regulatory Strategy Portfolio Analysis and Regulatory Strategy group.

**Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN SUPPORT OF DUKE ENERGY PROGRESS, LLC'S APPLICATION IN THIS DOCKET?**

A. Yes.

**Q. WHAT IS THE PURPOSE OF YOUR SUPPLEMENTAL TESTIMONY?**

A. The purpose of my supplemental testimony is to provide the Commission with an exhibit that was inadvertently left out of Duke Energy Progress, LLC's (the "Company") original filing in this proceeding.

**Q. PLEASE DESCRIBE THIS EXHIBIT.**

A. The exhibit, identified as Evans Supplemental Exhibit E, is an EM&V report associated with the Summer 2019 evaluation, measurement, and verification ("EM&V") Report for the Company's EnergyWise Home Program ("EnergyWise Home"), a residential demand response program. This EM&V report was finalized on August 19, 2020.

**Q. WERE ANY OTHER ELEMENTS OF THE COMPANY'S FILING IMPACTED BY THE OMISSION OF THIS EXHIBIT?**

A. No. The omission of this exhibit did not impact any other elements of the Company's filing.

**Q. DOES THIS CONCLUDE YOUR PRE-FILED SUPPLEMENTAL TESTIMONY?**

A. Yes.

BY MS. FENTRESS:

Q Mr. Evans, do you have a summary of your direct and supplemental testimonies?

A Yes.

Q Can you please present your summary.

A Yes. My direct testimony supports DEP's application for approval of its energy efficiency and Demand-Side Management cost recovery rider and Experience Modification Factor, EMF, for 2022, which encompasses the currently effective cost recovery and incentive mechanism and portfolio of programs.

In particular, my testimony discusses the Commission directed the Company to address: An overview of the Commission's filing requirements; a synopsis of the programs included in this filing; a discussion of program results, and an explanation of how these results have affected DSM/EE rate calculations.

Information on the Evaluation, Measurement & Verification, EM&V, activities; an overview of the calculation of the Portfolio Performance Incentive, PPI.

I discuss actions that the Commission

directed the Company to take in the last rider proceeding, which includes leveraging the Collaborative to discuss EM&V and program design issues, as well as appropriate ways to reflect full capacity of EE programs.

The Collaborative suggested several ideas for expanding or modifying DEP's current programs to assist low-income households.

And when the Company presented the proposed methodology to calculate the Reserve Margin Adjustment Factor, RMAF, to reflect the full avoided capacity, no Members rejected.

DEP is proposing to apply 11.429 percent RMAF to capacity savings associated with EE programs to be applied to Vintage 2022.

My testimony includes a comprehensive list of DSM and EE programs in the Company's current portfolio.

During Vintage 2020, DEP's DSM and EE programs delivered almost 355 million kilowatt-hours of energy savings and over 314 megawatts of capacity savings, which produced a net present value of avoided costs savings of close to $136 million.

The approved cost recovery mechanism allows DEP to recover reasonable and prudent costs incurred for adopting and implementing DSM and EE measures; recover net lost revenues incurred for up to 36 months of the measure's life for DSM and EE programs, and earn a PPI based on the sharing of a percentage of net savings achieved on an annual basis.

Prior to 2022, the shared savings percentage is 11.5 percent. And starting in 2022, this percentage will be lower to 10.6 percent.

Updates to underlying assumptions that materially impact Vintage 2022 portfolio projections are related to EM&V results and changes in avoided costs.

Although three programs do not pass the TRC threshold of 1.0, and the Energy Wise for Business program is being placed in a maintenance mode, DEP's portfolio of programs continues to be project cost-effectiveness.

The purpose of my supplemental testimony is to provide an exhibit that was inadvertently left out of the original filing: An

EM&V report for the EnergyWise Home Program, Summer, 2019.

MS. FENTRESS: Thank you, Mr. Evans. Madam Chair, Commissioners, Mr. Evans is available for cross-examination on his direct and supplemental testimony.

COMMISSIONER BROWN-BLAND: Ms. Fentress, I did have a question related to the identification of the exhibits in the filing. The supplemental attachment to the supplemental testimony was identified as an exhibit, I believe, but the prior convention was by appendix. Should that be in Appendix E?

MS. FENTRESS: I -- it is labeled as Evans Supplemental Exhibit E when we filed it.

COMMISSIONER BROWN-BLAND: Correct. And then in the direct testimony, the EMV reports were appendices, I believe. I just want to -- if it does not matter, we'll leave it for tomorrow.

MS. FENTRESS: It does not matter. I completely understand.

COMMISSIONER BROWN-BLAND: Okay.

MS. FENTRESS: We can remark this Evans Supplemental Appendix E.

COMMISSIONER BROWN-BLAND: Just for consistency, let's do that then.

MS. FENTRESS: Certainly.

COMMISSIONER BROWN-BLAND: The exhibit or attachment to the supplemental direct testimony will be identified as Appendix E.

The witness is available for cross. And unless you've all agreed on an order, which no one informed me, I will start with the Joint Intervenors. Do you have cross for this witness?

MR. MOORE: No questions.

COMMISSIONER BROWN-BLAND: CIGFUR, do you cross for this witness?

MS. CRESS: No, Commissioner Brown-Bland. Thank you.

COMMISSIONER BROWN-BLAND: CUCA, Mr. Schauer?

MR. SCHAUER: No questions.

COMMISSIONER BROWN-BLAND: And the Public Staff?

MS. LUHR: No questions.

COMMISSIONER BROWN-BLAND: Well, the Commission has some questions. And before I check with my colleagues, our Staff has provided us some questions that they would like to receive answers to, so I will begin with those.

EXAMINATION BY COMMISSIONER BROWN-BLAND:

Q Mr. Evans, the Commission submitted a list of post-hearing questions in the DEC rider case pertaining to the way in which the list of Find It Duke contractors were created. Does DEP use substantially the same procedures? Was there any significant differences there?

A No, Commissioner. They are basically the same, and I brought up a Find It Duke as a part of my rebuttal testimony as well in the proceeding.

Q Is there any significant overlap between those two FID contractors for the two companies?

A As far as the contractors themselves, I cannot tell you if they overlap or not, Commissioner. I do not know.

Q But you would say the guidelines for approving the contractors, the way the DEP identifies the recruits, the contractors are similar or --

A Yes, they certainly are. Yes, Commissioner.

Q Thank you. And what efforts does DEP make to identify and recruit historically disadvantaged businesses for participation in FID, and how many historically disadvantaged businesses are currently participating, if you know?

A Commissioner, I do not know the answer. I do know that we are now reaching out to our supplier diversity channels in order to actively recruit historically disadvantaged businesses, to take a part -- to be able to partake or work in -- by the Duke program.

Q Can you provide DEP's data on the number of historically disadvantaged businesses participating that are female-owned businesses? In other words, provide us a breakdown of the female-owned businesses, minority-owned businesses, and any other subcategories describing the nature and the ownership of such businesses.

A Commissioner, if that information is available, it will certainly be reported.

Q I think we would ask if it is available, reasonably available, that you provide it to us in a late-filed exhibit.

A Yes, Commissioner.

Q What is the total number of businesses that currently participate in the Find It Duke, and by

businesses, I mean contractors?
A I can't -- I do not know that number, Commissioner. I would be glad to provide that information to you in a separate follow-up exhibit.
Q How does DEP determine the amounts -- the amount or amounts of the fees that the contractors pay to participate in the program?
A They're based on market conditions.
Q Are they paid based on the number of referrals or the number of --
A Yes. They are based on the number of referrals, yes, Commissioner.
Q As separate and apart from -- so it's the larger number of total referrals or is it the referrals that lead to work, or some other base?
A It's the number of referrals based on -- to the best of my knowledge, it is on a number of referrals.
Q What steps does the Company take to insure that participating contractors are usually FID to obtain energy efficiency improvements, to offer energy efficiency improvements to rate payers as opposed to using it to obtain general home

improvement work such as plumbing or wiring repairs?

A The program, when it became -- when it started, was exclusively for DSM/EE-related measures, primarily EE-related measures, however.

The growth into places like solar and tree trimming was based on customer requests; and so no, our primary focus is on DSM/EE-related items.

Q So the question is getting at, is there any way that you monitor what the contractors are doing to make sure that they are using it for energy efficiency improvements?

A Commissioner, I am unaware of any monitoring efforts of that type. I wish I could tell you, but frankly I cannot.

Q. Do you know if the Company has data on how many energy efficient initiatives are installed due to the program's referrals?

A Yes. We have that information. We provided similar information to the Commission in the DEC case, and we can do the same with the DEP case.

Q We would appreciate that, if you know. And it may be that you need time, I appreciate that, but if you know or can give us some insight, given the order in the DEC Docket, E-7, Sub 1249, do you have initial thoughts for how DEP would propose to separate out the cost of revenues for the program if we came to a similar conclusion in this docket?

A We have gone through -- a couple of different ways. However, we'll be working with the Public Staff toward a mutually agreed manner in which to make those allocations, Commissioner.

Q Can you provide a breakdown of referrals between FID requests by DEP customers for energy-efficient work?

A Yes, Commissioner.

Q And can you do the same thing for referrals that result in work done by FID contractors and level of fees, and the level of fees paid to FID?

A Um, I can make certain that we supply you with that information after the hearing exhibit.

Q In 2020, what was DEP's total cost of operating the FID program?

A I do not have that information for DEP, Commissioner. I'd be glad to provide that information to you again in a post --

Q And, if you can, what are the actual year-to-date and expected full year cost for 2021? Was there anything unusual about either of the year 2020 or 2021?
A We can supply that information as well.
Q Do you have any knowledge about whether there was something unusual about either year?
A I do know in that case, that Covid did impact the revenues in a negative fashion and portion.
Q And so --
A Doesn't matter where.
Q So that previous question that I just asked was about the cost, and you anticipated. I was going to ask the same question pertaining to the revenues. What are the actual year-to-date and expected full year revenues for 2021?
A I will provide that to you as well, Commissioner. I'm sorry to have jumped the gun.

COMMISSIONER BROWN-BLAND: No. That was good, to anticipate. Thank you.

Q Mr. Evans, in your direct testimony, you testified to a reduction in the DSDR allocation ratios. And just for my understanding, was that reduction a result of more equipment being charged to non-DSDR equipment or has it been the other direction?

A Commissioner, I can't remember off the top of my head, but I will look at my testimony, and I have got that information available. I apologize for thumbing through these.

Q That is fine. I apologize -- I had to do the same, and I apologize for not inviting you to a page. It is probably a little after page 10, I would say. I don't have it to --

A Okay. On page 11 -- okay. Those percentages actually were reduced, those allocation factors in both cases on capacitors and on transformers, the regulators.

Q Correct. And I'm just asking because I don't follow whether the reduction is because there's more being charged to non-DSDR. Is that the direction, the change?

A Yes, that is the direction.

Q So there's more to non-DSDR?

A There's not a significant change, Commissioner. And as I've seen in the past, it can go both directions. However, as DSDR changes, it may change as well in a different manner or more significant jumps or increases or reduction.

COMMISSIONER BROWN-BLAND: Thank you. So are there other questions from the Commissioners? Any Commissioners have a question for this witness?

EXAMINATION BY COMMISSIONER McKISSICK:

Q Commissioner Brown-Bland, I guess there were a few additional questions along the same line. And I was just wondering, if you can tell me, what criteria does DEP apply to determine that a previously qualified contractor's no longer qualified to participate in the Find It Duke Program?

A I cannot tell you that, Commissioner. We will be glad to provide that information to you now.

Q Okay. And in 2020, do you know what the average dollar value was that were performed by historically disadvantaged businesses and the Find It Duke Program?

A I cannot say that we know that information, Commissioner.

Q But you can seek to find it?

A Yes. Well, you'll be notified under either set of circumstances, even if it's available or not available.

Q Okay. And if you could do the same for average dollar value work performed by contractors that were not historically disadvantaged businesses, that would be helpful as well.
A Certainly. If I have that information available, we will certainly provide it to the Commission.
Q And in 2020, what was DEP's total cost for operating the Find It Duke Program?
A That information will have to be provided as a post-hearing exhibit, Commissioner --
Q. Okay.
A -- at this point in time.
Q Sure. And lastly, if you can also, you know, I guess, identify in 2020 what the total revenue received from Find It Duke was, you know, as compared and contrasted to the operating cost, that would be excellent.
If you could submit that, I guess, as a late-filed exhibit, that would be excellent, and that would be it, Commissioner Brown-Bland. Thank you.
A Thank you, Commissioner.

COMMISSIONER BROWN-BLAND: Any other Commissioners have questions of witness Evans?

(No response)

COMMISSIONER BROWN-BLAND: Not seeing any, one more, witness Evans, for you, and this goes back to Find It Duke.

EXAMINATION BY COMMISSIONER BROWN-BLAND:

Q Do you know how the referrals are made? That is, I'm trying to determine if the referrals are made one service at a time.

And so if a customer wanted two to three different services, they would come back in and there would be two more referrals, or could one single customer have a joint referral at one time. Do you know?

A I'd have to provide that as a post-hearing information, Commissioner.

Q All right.

A I apologize.

Q If you happen to be able to obtain it, I would just appreciate knowing that.

COMMISSIONER BROWN-BLAND: That's all the questions from the Commissioner's. Are there questions on Commissioner's questions?

(No response)

COMMISSIONER BROWN-BLAND: I'm not hearing or seeing that anyone has any questions. So, Mr. Evans, you may step down at this time.

MR. EVANS: Thank you, Commissioner.

MS. FENTRESS: Madam Chair, this would be -- would this be an appropriate time to move witness list orders, list orders, direct testimony, and exhibits into the record? I wasn't -- in an abundance of caution, I'm prepared to do so.

COMMISSIONER BROWN-BLAND: Yes, it would be, but let's get Mr. Evans' exhibits in.

MS. FENTRESS: Oh, yes. I would move Mr. Evans' Exhibits --

COMMISSIONER BROWN-BLAND: It would be Exhibits 1 through 12.

MS. FENTRESS: And Appendices A through D and Supplemental Appendix E. Move that into the record as --

COMMISSIONER BROWN-BLAND: Very well. That motion is granted and those exhibits are received into evidence, Exhibits A and Appendices. And now --

(WHEREUPON, Evans Direct Exhibits 1-12 and Evans Exhibits A-D, and Evans Supplemental Exhibit E are admitted into evidence.)

(COURT REPORTER NOTE: Exhibits were named as they were attached to the prefiled testimony.)

MS. FENTRESS: And then I would also request to move witness Listebarger's direct testimony and exhibits, prefiled with the Commission on June 15th, 2021, into the record, and ask that it be admitted into evidence as if she had given it orally from the stand.

COMMISSIONER BROWN-BLAND: And that motion is allowed as well.

MS. FENTRESS: Thank you.

COMMISSIONER BROWN-BLAND: And the testimony's received as if given orally from the witness stand. And the exhibits are received and marked as they've identified as they were marked when prefiled.

MS. FENTRESS: Thank you.

(WHEREUPON, Listebarger Exhibits 1 - 6 are marked for identification as prefiled and received into evidence.)

(WHEREUPON, the prefiled direct testimony of SHANNON R

LISTEBARGER is copied into the record as if given orally from the stand.)

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1273

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

## I. INTRODUCTION AND PURPOSE

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

A. My name is Shannon R. Listebarger, and my business address is 550 South Tryon Street, Charlotte, North Carolina. I am a Manager, Rates & Regulatory Strategy for Duke Energy Carolinas, LLC ("DEC"), supporting both Duke Energy Progress, LLC ("DEP" or the "Company") and DEC.

**Q. PLEASE BRIEFLY STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

A. I have a Bachelor of Business Administration from DeVry University and a Master of Business Administration from Keller Graduate School of Management. I began my career in 2001 with American Electric Power. During my time there I held a variety of positions in Corporate Accounting, Regulatory and Financial Forecasting. In 2018, I began working with Duke Energy as a lead load forecast analyst. I joined the Rates Department in 2020 as Manager, Rates and Regulatory Strategy.

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

A. Yes, I have provided testimony in support of DEP's previous application for approval of its DSM/EE cost recovery riders in Docket No. E-2, Sub 1252 and DEC's application for approval of its DSM/EE cost recovery riders in Docket No. E-7, Sub 1249.

**Q. WHAT ARE YOUR CURRENT RESPONSIBILITIES?**

A. I am responsible for providing regulatory support for retail rates and providing guidance on DEC's and DEP's DSM/EE cost recovery process.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to explain and support DEP's proposed DSM/EE cost recovery rider and Experience Modification Factor ("EMF") and provide information required by Commission Rule R8-69.

**Q. PLEASE DESCRIBE THE EXHIBITS ATTACHED TO YOUR TESTIMONY.**

A. Listebarger Exhibit 1 provides a summary of the proposed annual rates by customer class. Listebarger Exhibit 2, pages 1 through 3, shows the calculation of the DSM and EE rates for the rate period, as well as the breakdown by program of the various components of the estimated revenue requirement. Listebarger Exhibit 2, pages 4 through 6, presents the calculation of the DSM EMF and EE EMF rates for the test period, as well as the breakdown by program of the various components of the final revenue requirement. Adjustments resulting from Evaluation, Measurement and Verification ("EM&V") of the Company's DSM/EE programs are also presented in Listebarger Exhibit 2, page 7. Listebarger Exhibit 3, pages 1 through 4, calculates the amount of interest or return due on over- and under-collections for Vintage 2020. Exhibit 4 shows a summary of revenue collected during calendar year 2020 by program type and customer class. Listebarger Exhibit 5, pages 1 through 7, presents the allocation factors used in the development of the rider, including the energy allocation factors applicable to DSM and EE program costs, the North Carolina and South Carolina retail allocation factors, and the lighting allocation factors.

Listebarger Exhibit 6 includes both forecasted 2022 sales from the Spring 2021 forecast and the impact of opt-outs.

**Q. WERE LISTEBARGER EXHIBITS 1-6 PREPARED BY YOU OR AT YOUR DIRECTION AND SUPERVISION?**

A. Yes.

## II. SUMMARY OF DSM/EE COSTS

**Q. CAN YOU PROVIDE A SUMMARY OF THE COSTS FOR WHICH DEP IS REQUESTING RECOVERY IN THIS PROCEEDING?**

A. Yes. The DSM/EE costs DEP is requesting to recover through the rates proposed in this proceeding are associated with the costs incurred during the test period, as well as the costs forecasted to be incurred during the rate period. The test period utilized in the development of the DSM/EE EMF is January 1, 2020 through December 31, 2020. The North Carolina allocated share of recoverable DSM/EE costs for the test period is $160,435,281. For the rate period of January 1, 2022 through December 31, 2022, the North Carolina allocated share of forecasted DSM/EE costs is $183,344,499. The total North Carolina allocated share of DSM/EE costs for the test period plus the rate period is $343,779,780.

A summary of the costs associated with DEP's recovery request by period and by DSM/EE program/measure is provided in the following table:

| Program/Measure | Test Period **1/1/20 through 12/31/20** | Rate Period **1/1/22 through 12/31/22** |
|---|---|---|
| CIG DR | $1,379,153 | $2,018,114 |
| EnergyWise | $16,902,241 | $14,897,321 |
| EnergyWise for Business | $1,789,006 | $2,331,730 |
| DSDR Implementation | $19,680,927 | $29,665,823 |
| Residential Home Advantage | $140,907 | $517 |
| Residential Smart $aver/Home Energy Improvement | $6,416,860 | $3,744,221 |
| Residential Low Income – NES | $540,495 | $3,204,041 |
| Energy Efficient Lighting | $15,422,146 | $10,898,385 |
| Appliance Recycling | $2,439,918 | $31,968 |
| My Home Energy Report | $15,595,776 | $15,217,210 |
| Small Business Energy Saver | $8,965,975 | $14,091,160 |
| Residential New Construction | $18,110,154 | $16,903,342 |
| Multi-Family EE | $2,839,491 | $3,586,869 |
| Energy Education Program for Schools | $598,122 | $1,702,418 |
| Save Energy & Water Kit | $3,058,899 | $9,103,101 |
| Residential Energy Assessments | $3,058,060 | $5,203,850 |
| Smart $aver Prescriptive | $19,453,808 | $22,047,514 |
| Smart $aver Custom | $4,684,474 | $6,413,357 |
| Smart $aver Performance Incentive | $388,449 | $667,817 |
| Administrative & General Costs | $4,974,760 | $6,891,535 |
| Carrying Cost on Balances | $14,079,746 | $14,746,380 |
| Found Revenue (total) | $(84,089) | $(22,173) |
| Lost Revenue Decrement | | |
| Total Cost | $160,435,281 | $183,344,499 |

In addition to the summary table above, Listebarger Exhibit 2, page 3, and Listebarger Exhibit 2, page 6, provide additional categorizations by cost element.

**Q. ARE DEP'S PROPOSED RATES DESIGNED TO RECOVER THE TOTAL NORTH CAROLINA ALLOCATED SHARE OF $343,779,780?**

A. No. Because many of the expenses incurred during the current test period to develop and implement DEP's DSM/EE programs produce benefits covering several years, a significant portion of those expenses will be deferred and recovered over varying amortization periods. A summary of the amortization periods for program expenses and Program/Portfolio Performance Incentive ("PPI")[1] is shown below:

| Length of Amortization Period | | | | |
|---|---|---|---|---|
| Program Name | Program Cost – batches prior to 2016 | Program Cost – 2016 – present | PPI – vintages prior to 2016 | PPI – 2016 – present |
| CIG DR | 10 | 3 | 10 | 3 |
| EnergyWise | 10 | 10 | 10 | 10 |
| EnergyWise for Business | N/A | 3 | N/A | 1 |
| DSDR Implementation | 10 | 10 | N/A | N/A |
| Residential Home Advantage | 10 | N/A | 10 | N/A |
| Residential Smart $aver/Home Energy Improvement | 10 | 10 | 10 | 10 |
| Residential Low Income – NES | 10 | 10 | 10 | 10 |
| Energy Efficient Lighting | 5 | 5 | 10 | 5 |
| Appliance Recycling | 10 | 10 | 10 | 10 |
| My Home Energy Report | 1 | 1 | 1 | 1 |
| Residential New Construction | 10 | 10 | 10 | 10 |
| CFL Pilot | 10 | N/A | 10 | N/A |
| Solar Hot Water Pilot | 10 | N/A | 10 | N/A |
| Multi-Family EE | 5 | 5 | 5 | 5 |
| Energy Education | 5 | 5 | 5 | 5 |
| CIG EE | 10 | 3 | 10 | 3 |
| Save Water & Energy Kit | N/A | 5 | N/A | 5 |
| Residential Energy Assessments | N/A | 5 | N/A | 5 |
| Small Business Energy $aver | 10 | 3 | 10 | 3 |
| Smart $aver Prescriptive | 3 | 3 | 3 | 3 |

[1] As explained further below, for vintages prior to 2016, incentives are calculated on a program basis. Pursuant to the Commission's *Order Approving Revised Cost Recovery Mechanism and Granting Waivers* issued January 20, 2015 in Docket No. E-2, Sub 931 ("Order Approving Revised Mechanism"), which applies to Vintages 2016 and forward, incentives under the Company's revised cost recovery mechanism are calculated on a portfolio basis. For ease of reference, I will refer to both incentives as "PPI."

| Length of Amortization Period | | | | |
|---|---|---|---|---|
| Program Name | Program Cost – batches prior to 2016 | Program Cost – 2016 – present | PPI – vintages prior to 2016 | PPI – 2016 – present |
| Smart $aver Performance | 3 | 3 | 3 | 3 |
| Smart $aver Custom | 3 | 3 | 3 | 3 |
| Admin. & General | 3 | 3 | 3 | N/A |

In addition to the aforementioned deferrals, DEP's proposed rates include the recognition and amortization of prior period deferrals. In total, the EMF-related calculations based on test period costs reflect an estimated under-recovery of $12,551,970. The DSM/EE rate calculations associated with rate period estimates are based on a revenue requirement of $177,186,661. The rate period and EMF revenue requirements produce a combined revenue requirement of $189,738,629. Listebarger Exhibit 2, pages 1 and 2, and Listebarger Exhibit 2, pages 4 and 5, detail the calculation of these amounts.

## III. EMF REVENUE REQUIREMENT

**Q. HOW WAS THE DSM/EE EMF UNDER-RECOVERY OF $12,551,970 DETERMINED?**

A. The EMF under-recovery is a function of the sum of test period costs, including amounts relating to the amortization of deferred costs from prior periods, and credits for actual DSM/EE rider revenues for the period January 1, 2020 through December 31, 2020. The following table illustrates the relationship of these elements with respect to the determination of the DSM/EE EMF:

| Rate Element | Amounts |
|---|---|
| Test Period Revenue Requirement | $166,226,042 |
| Net DSM/EE Rate Revenue | $154,802,417 |
| Add: Other Adjustments | ($1,128,344) |
| Total EMF Adjustments | $153,674,073 |
| Adjusted DSM/EE EMF Revenue Requirement | $12,551,970 |

Listebarger Exhibit 2, pages 4 through 7, provides additional details associated with the development of these amounts.

**Q. PLEASE DESCRIBE THE ($1,128,344) THAT HAS BEEN CATEGORIZED AS "OTHER ADJUSTMENTS."**

A. The ($1,128,344) in "Other Adjustments" is the sum of lines 2 through 8 on page 7 of Listebarger Exhibit 2. Line 2 is reserved for potential prospective uncollectible allowances in DEP's DSM/EE rates. DEP is not requesting a prospective uncollectible adjustment as a part of its cost recovery request in this proceeding. However, the actual uncollectibles experienced in test period 2020 exceeded amounts recovered in base rates; therefore, the incremental portion associated with EE billings has been included on Line 3. In addition, the adjustments found on lines 4 through 7 reflect the true-up of PPI for Vintage 2019 and net lost revenues for 2017, 2018 and 2019 vintage. The last of these adjustments, found on line 8, recognizes estimated interest owed to customers for revenue over- collections and interest owed to the Company for revenue under-collections during the period extending from January 1, 2020 through December 31, 2020. The Direct Testimony of Company witness Robert P. Evans provides further detail on program-specific impacts to PPI and net lost revenues.

## IV. <u>RATE PERIOD REVENUE REQUIREMENT</u>

**Q. PLEASE DESCRIBE THE BASIS FOR THE RATE PERIOD REVENUE REQUIREMENT.**

A. As indicated previously, the estimated revenue requirement for the rate period is $177,186,661. This amount reflects the anticipated costs and necessary recoveries for the rate period, which extends from January 1, 2022 through December 31, 2022. The $177,186,661 revenue requirement includes: (1) $24,462,595 for anticipated rate period program expenses; (2) amortizations and carrying costs associated with deferred prior period costs totaling $74,888,773; (3) recovery of Distribution System Demand Response ("DSDR") depreciation and capital costs totaling $23,864,734; (4) net lost revenues for the rate period totaling $36,418,070 for vintage years 2019 through 2022; and (5) PPI totaling $17,552,489 associated with vintage years 2013 through 2022. In addition, under the Commission's October 20, 2020 *Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms,* issued by the Commission in Docket Nos. E-2, Sub 931 and E-7, Sub 1032 (the "2020 Sub 1032 order"), beginning in 2022, the Income-Qualified EE and Weatherization programs are eligible to receive a Program Return Incentive ("PRI") based on shared savings achieved by these programs. Witness Evans' testimony provides additional information on this matter.

## V. <u>JURISDICTIONAL COST ALLOCATION</u>

**Q. HOW ARE DSM AND EE PROGRAM COSTS ALLOCATED TO THE NORTH CAROLINA RETAIL JURISDICTION?**

A. DEP determines the total amount of recoverable costs and separates these costs into three categories: (1) DSM-related costs, (2) EE-related costs, and (3) costs that provide a system benefit in support of both DSM and EE programs. For each of these categories, different allocation methods are employed to assign those costs to the appropriate jurisdiction.

**Q. HOW ARE COSTS IDENTIFIED AS EE-RELATED ALLOCATED TO NORTH CAROLINA?**

A. Any program costs that are identified as being EE-related, including administrative and general ("A&G") costs, are allocated to the North Carolina retail jurisdiction based upon the ratio of North Carolina retail sales to DEP system retail sales at the point of generation. For calendar year test periods beginning in year 2016, the allocation percentage for the entire calendar year test period is based on the latest cost of service study available at the time of filing.

**Q. HOW ARE DSM-RELATED COSTS ALLOCATED TO NORTH CAROLINA?**

A. Any program costs that are identified as being DSM-related, including A&G costs, are allocated to the North Carolina retail jurisdiction based upon the ratio of the North Carolina retail demand to the DEP system retail demand at the hour of the annual summer system peak. For calendar year test periods beginning in year 2016, the allocation percentage for the entire calendar year test period is based on the latest cost of service study available at the time of filing.

**Q. PLEASE ELABORATE ON THE METHODOLOGY USED TO ALLOCATE DSM/EE COSTS THAT OFFER A SYSTEM BENEFIT.**

A. Certain A&G costs provide a system benefit in support of both DSM and EE programs and, therefore, are allocated in both categories. The allocation of these costs into either the DSM or EE category is based upon the percentage of program costs for each type of expenditure anticipated during the next forecast calendar year. For example, if 30% of direct program costs in the forecast period are EE-related, then 30% of these A&G costs will be considered EE-related costs for allocation purposes. The use of a forecast period recognizes the types of new programs DEP will offer in the immediate future that will be supported by these administrative costs. The assignment of A&G costs as either DSM- or EE- related is reviewed annually based upon forecasted program costs for the next calendar year. The A&G costs in this proceeding have been assigned to these categories based upon forecasted DSM and EE costs for 2022.

**Q. IN LISTEBARGER EXHIBIT 2, PAGE 3, AND LISTEBARGER EXHIBIT 2, PAGE 6, THE DSDR PROGRAM IS SEPARATED FROM THE OTHER DSM/EE PROGRAMS. HOW IS THE DSDR PROGRAM CLASSIFIED?**

A. The DSDR program has been classified by the Commission, for purposes of ratemaking, as an EE program. Due to the scope and nature of DSDR, its costs are being tracked separately. This separate tracking includes both direct costs and A&G costs associated with the program.

## VI. UTILITY INCENTIVES AND NET LOST REVENUES

**Q. HOW ARE THE PPI AND PRI CALCULATED?**

A. The PPI is calculated pursuant to the *Order Approving Revised Mechanism* and is based on the savings achieved by the portfolio of PPI-eligible DSM/EE programs. Under the terms of the *Order Approving Revised Mechanism*, the amount of PPI to be recovered during the rate period is 11.75 percent of the net benefits produced by the portfolio of PPI-eligible programs prior to 2022. Pursuant to the related 2020 Sub 1032 Order and other orders in Docket No. E-7, Sub 1032, starting in 2022, this percentage is lowered to 10.6%. 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 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 *Order Approving Revised Mechanism*, 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 2020. 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 2022 and will be trued-up as a part of DEP's 2023 DSM/EE cost recovery proceeding. In addition, as discussed above, Income-Qualified EE and Weatherization programs are eligible to receive a PRI beginning in 2022. Company witness Evans further describes the specifics of the PPI and PRI calculations in his testimony. Please see Evans Exhibit 1 for additional detail by program.

**Q. HOW WERE NET LOST REVENUES DETERMINED?**

A. The Company determines net lost revenues, which are applicable to both DSM and EE programs, by multiplying the estimated reduction in kWh sales associated with a program or measure by a margin-based net lost revenue rate. The following formula illustrates the basic components of the net lost revenue calculations: Net Lost Revenues ($) = Lost Sales (kWh) x Net Lost Revenue Rate ($/kWh).

Lost Sales are those sales that do not occur as a result of implementation of DEP DSM/EE measures. These values are initially based on engineering estimates and/or past impact evaluations. Future periods are based on updated impact evaluations resulting from EM&V activities and are applied prospectively and in conjunction with applicable net lost revenue true-ups. The Net Lost Revenue rate represents the difference between the average retail rate applicable to the customer class impacted by the measure and the sum of (1) the embedded regulatory fees, (2) the related average customer charge component of that rate, (3) the average fuel component of the rate, and (4) the incremental variable operations and maintenance rate as filed in DEP's last Cogeneration and Small Power Producer tariff. When multiple customer classes are impacted by a DSM/EE measure, as with the DSDR program, a weighted or system-wide net lost revenue rate is employed.

Pursuant to the *Order Approving Revised Mechanism*, DEP may only recover net lost revenues for up to 36 months of an installed measure's life, and as with the PPI, recoveries are subject to true-up on the basis of future EM&V results.

Residential and non-residential lost revenues associated with participants enrolled during the test period, twelve months ending December 31, 2018, extended to May 31, 2020, of the Company's general rate case proceeding, Docket No. E-2, Sub 1219, have been adjusted based on specific enrollment dates, and a portion of these lost revenues have been removed from the prospective period as of September 1, 2020 and included in interim base rates.

**Q. HAVE EXCESS DEFERRED INCOME TAXES RESULTING FROM THE TAX CUTS AND JOBS ACT BEEN INCORPORATED INTO THE CALCULATION OF NET LOST REVENUES?**

A. The final order in the general rate case, issued April 16, 2021 in Docket No. E-2, Sub 1219 (the "Final Order"), directed DEP to refund certain amounts owed to customers related to excess deferred income taxes ("EDIT"), resulting from the reduction in federal corporate income taxes according to the Tax Cuts and Jobs Act, through a reduction in base rates rather than through a rider. The refunded amounts are the "protected" EDIT amounts, generally related to Property, Plant and Equipment, for which there are specific ratemaking requirements prescribed by the Internal Revenue Service. Lost revenue rates for 2020 have been trued up to reflect the Final Order, and the projected 2022 lost revenue rates also reflect the Final Order.

## VII. <u>COST ALLOCATION METHODOLOGY</u>

**Q. HOW ARE DSM- AND EE-RELATED COSTS ALLOCATED TO EACH RATE CLASS?**

A. Costs are assigned to customer classes based on program design and participation. In other words, residential program costs are allocated solely to residential customers, general service program costs are allocated solely to general service customers, and lighting program costs are allocated solely to lighting customers. Where programs benefit multiple customer groups, the costs are allocated directly to groups receiving benefits or by employing annual energy- and/or coincident peak demand-based allocation factors.

Listebarger Exhibit 2, pages 1 and 2, and Listebarger Exhibit 2, pages 4 and 5, demonstrate how the costs associated with a specific program have been assigned to customer groups.

**Q. HOW ARE SALES AND DEMAND ADJUSTED FOR THE IMPACT OF OPT-OUT CUSTOMERS?**

A. Commercial customers with annual consumption of 1,000,000 kWh or greater in the billing months of the prior calendar year and all industrial customers who implement or will implement alternative DSM/EE measures may elect not to participate in DEP's DSM and/or EE programs. DEP reviewed its customer records and identified that commercial and industrial customers choosing to opt out of EE programs consumed 11,746,852,167 kWh during the year ended December 31, 2020. In addition, DEP identified that commercial and industrial customers choosing to opt out of DSM programs consumed 11,772,985,490 kWh during the year ended December 31, 2020.

DEP developed rate class allocation factors based on the assumption that customers that have elected to opt out of the Company's DSM/EE rider will remain opted out. If customers decide to change their opt-out status, revenue gains or losses will be recognized in subsequent DSM/EE EMF calculations.

Sales for the year ended December 31, 2020 for all customers electing to opt out of the DSM/EE rate are provided in Listebarger Exhibit 6.

**Q. THE SALES FOR OPT-OUT CUSTOMERS ARE EASILY IDENTIFIED, BUT HOW IS THE COINCIDENT PEAK OF THESE CUSTOMERS ESTIMATED?**

A. Currently installed metering for a great number of opt-out customers does not provide sufficient detail to determine their contribution to the system coincident peak hour load. Instead, the impact is estimated based upon the ratio of opt-out sales to total sales for the rate class multiplied by the rate class peak demand. This approach should accurately approximate the demand of opt-out accounts. This calculation can be seen at Listebarger Exhibit 5, page 6.

**Q. AFTER ADJUSTING ENERGY AND DEMAND FOR OPT-OUT CUSTOMERS, HOW ARE THE RESULTING ALLOCATION FACTORS THEN USED TO DETERMINE THE REVENUE REQUIREMENT FOR EACH RATE CLASS?**

A. Energy- and demand-based allocators are used in cases where programs or measures directly benefit multiple rate groups. When a DSM or EE program benefits multiple rate groups, DEP multiplies EE costs by rate class energy allocation factors and multiplies any associated DSM costs by rate class demand allocation factors for purposes of cost assignment.

Since usage for opt-out customers is not forecasted, the rate class energy allocation factors were developed from the forecasted rate class usage after subtracting actual sales for opt-out customers for the year ended December 31, 2020. Listebarger Exhibit 5, page 5, provides the energy allocation factors applicable to each rate class based upon the forecast of rate class sales for the rate period of January 1, 2022 through December 31, 2022.

The allocation rate class demand allocation factors are based on the summer coincident peak demand for 2020 after subtracting the estimated demand for opt-out customers as discussed above. The forecast does not provide rate class coincident peak demands; therefore, the most recent historic data was deemed to be representative of future demand impacts. Listebarger Exhibit 5, page 6, shows the demand allocation factors applicable to each rate class for the rate period.

**Q. WHICH OF DEP'S PROGRAMS OR MEASURES BENEFIT MULTIPLE CUSTOMER CLASSES?**

A. The Company's DSDR program benefits all customer classes. To allocate DSDR costs, DEP employs rate class energy allocation factors. These allocation procedures are elements of Listebarger Exhibit 2, pages 1 and 4. In addition, DEP's Energy Efficient Lighting Program provides benefits to both the residential and general service customer classes. These costs were allocated based on the bulbs provided to those classes using EM&V results as shown in Listebarger Exhibit 5, page 7.

**Q. HOW DOES DEP DETERMINE RATE CLASS DSM/EE RATES?**

A. The calculated rate class DSM and EE revenue requirements are divided by forecasted rate class sales, after adjustment for opt-out customers, to establish the rate class DSM/EE rate. Listebarger Exhibit 2, page 1, provides the derivation of the EE rate. Listebarger Exhibit 2, page 2, provides the derivation of the DSM rate.

**Q. HOW DOES DEP DETERMINE RATES FOR THE DSM/EE EMF?**

A. As with DSM/EE rate determination, the calculated rate class DSM and EE EMF revenue requirements, adjusted for cost recoveries, are divided by forecasted rate class sales, after adjustment for opt-out customers, to establish the rate class DSM/EE EMF rate. Listebarger Exhibit 2, page 4, provides the derivation of the EE EMF rate. Listebarger Exhibit 2, page 5, provides the derivation of the DSM EMF rate.

## VIII. <u>PROPOSED RATES</u>

**Q. WHAT RATES ARE PROPOSED FOR EACH RATE CLASS?**

A. Listebarger Exhibit 1 is populated with the DSM/EE rates and EMF rates proposed in this proceeding. The DSM/EE rates recover costs forecasted to be incurred from January 1, 2022 through December 31, 2022. The DSM/EE EMF is a true-up mechanism recognizing costs and recoveries for the test period of January 1, 2020 through December 31, 2020. DEP proposes the following rates, exclusive of North Carolina regulatory fees, for each rate class:

| Rate Class | DSM Rate (¢/kWh) | EE Rate (¢/kWh) | DSM EMF (¢/kWh) | EE EMF Rate (¢/kWh) | DSM/EE Annual Rider (¢/kWh) |
|---|---|---|---|---|---|
| Residential | 0.114 | 0.549 | 0.001 | 0.056 | 0.720 |
| General Service EE | | 0.637 | | 0.040 | 0.677 |
| General Service DSM | 0.061 | | (0.008) | | 0.053 |
| Lighting | | 0.119 | | 0.005 | 0.124 |

**Q. WHAT ARE THE RATES INCLUDING NORTH CAROLINA REGULATORY FEES?**

A. The following table reflects the proposed billing rates, including North Carolina regulatory fees, for each rate class:

| Rate Class | DSM Rate (¢/kWh) | EE Rate (¢/kWh) | DSM EMF (¢/kWh) | EE EMF (¢/kWh) | Annual DSM/EE Rider (¢/kWh) |
|---|---|---|---|---|---|
| Residential | 0.114 | 0.550 | 0.001 | 0.056 | 0.721 |
| General Service EE | | 0.638 | | 0.040 | 0.678 |
| General Service DSM | 0.061 | | (0.008) | | 0.053 |
| Lighting | | 0.119 | | 0.005 | 0.124 |

**Q. HOW WILL DEP REVISE ITS TARIFFS TO RECOVER THESE RATES?**

A. The Company will update its Annual Billing Adjustment, Rider BA, to recognize these rates, adjusted for the North Carolina regulatory fees.

## IX. <u>CONCLUSION</u>

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

A. Yes.

COMMISSIONER BROWN-BLAND: Does that conclude?

MS. FENTRESS: That is the Company's direct case, yes, Madam Chair.

COMMISSIONER BROWN-BLAND: Now, we will turn to the Intervenors.

MR. MOORE: Commissioner Brown-Bland, the Intervenors call Mr. Bradley-Wright to the stand.

COMMISSIONER BROWN-BLAND: Okay. Mr. Wright. There you are. Took me a minute to find you.

FOREST BRADLEY-WRIGHT;
having been duly affirmed,
testified as follows:

COMMISSIONER BROWN-BLAND: Mr. Schauer -- or Mr. Moore, Sorry.

MR. MOORE: Thank you.

DIRECT-EXAMINATION BY MR. MOORE:

Q Please state your name and business address, for the record.

A Forest Bradley-Wright. Business address is 3804 Middlebrook Pike, Knoxville, Tennessee 37921.

Q Mr. Bradley-Wright, on September 9th, 2021, did you cause to be prefiled direct testimony in this docket consisting of 39 pages as well as 11 exhibits?

A Yes, I did.

Q Do you have any changes or corrections to your prefiled testimony?

A No corrections.

Q If the questions put to you in your direct testimony were asked at the hearing today, would your answers be the same?

A They would.

Q Were the exhibits to your testimony prepared by you or under your direction?

A Yes, they were.

MR. MOORE: Commissioner Brown-Bland, I would move to have Mr. Bradley-Wright's testimony and exhibits entered into the record as though given orally from the stand, and to have his exhibits attached to his testimony and identified as premarked.

COMMISSIONER BROWN-BLAND: Without objection, that motion is allowed and that the testimony of witness Bradley-Wright will be received into evidence as given orally from the witness stand. The 11 exhibits are identified as they were marked when prefiled.

(WHEREUPON, Exhibits FBW-1

through FBW-11 are marked for identification as prefiled.)

(WHEREUPON, the prefiled direct testimony of FOREST BRADLEY-WRIGHT is copied into the record as if given orally from the stand.)

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**

| | | |
|---|---|---|
| In the Matter of:<br>Application of Duke Energy Progress, LLC<br>for Approval of Demand-Side Management<br>and Energy Efficiency Cost Recovery Rider<br>Pursuant to N.C. Gen. Stat. § 62-133.9 and<br>Commission Rule R8-69 | )<br>)<br>)<br>)<br>)<br>) | **Docket No. E-2, Sub 1273** |

**DIRECT TESTIMONY AND EXHIBITS OF**

**FOREST BRADLEY-WRIGHT**

**ON BEHALF OF**

**THE NORTH CAROLINA JUSTICE CENTER,<br>NORTH CAROLINA HOUSING COALITION, AND<br>SOUTHERN ALLIANCE FOR CLEAN ENERGY**

**September 9, 2021**

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Exhibit FBW-4: DEP Response to SACE et al. Data Request 1-21

Exhibit FBW-5: DEP Response to SACE et al. Data Request 1-18

Exhibit FBW-6: DEP Response to SACE et al. Data Request 1-36

Exhibit FBW-7: Liz Bourguet & Jim Grevatt, *Pathways for Energy Efficiency in Virginia*, Energy Futures Group (June 3, 2021)

Exhibit FBW-8: DEP Response to SACE et al. Data Request 1-40

Exhibit FBW-9: July 14, 2021 Presentation to the Collaborative: Duke Energy's Income Qualified Weatherization Pilot

Exhibit FBW-10: DEP Response to SACE et al. Data Request 1-30

Exhibit FBW-11: July 14, 2021 Presentation to the Collaborative on Income Qualified Budgeting

## I. Introduction and Qualifications

**Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.**

A. My name is Forest Bradley-Wright. I am the Energy Efficiency Director for Southern Alliance for Clean Energy ("SACE"), and my business address is 3804 Middlebrook Pike, Knoxville, Tennessee.

**Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?**

A. I am testifying on behalf of SACE, the North Carolina Justice Center ("Justice Center"), and the North Carolina Housing Coalition ("Housing Coalition") (collectively, "Public Interest Intervenors").

**Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND WORK EXPERIENCE.**

A. I graduated from Tulane University in 2001 and in 2013 received my Master of Arts degree from Tulane in Latin America Studies with an emphasis on international development, sustainability, and natural resource planning.

My work experience in the energy sector began in 2001 at Shell International Exploration and Production Company, where I served as Sustainable Development Team Facilitator.

From 2005 to 2018, I worked for the Alliance for Affordable Energy. As the Senior Policy Director, I represented the organization through formal intervenor filings and before regulators at both the Louisiana Public Service Commission and the New Orleans City Council on issues such as integrated resource planning, energy-efficiency rulemaking and program design, rate cases, utility acquisition, power plant certifications, net metering, and utility scale renewables. As a consultant, I also prepared and filed intervenor comments on renewable energy dockets before the Mississippi and Alabama Public Service Commissions.

Since 2018, I have been the Energy Efficiency Director for SACE. In this role, I am responsible for leading dialogue with utilities and regulatory officials on issues related to energy efficiency in resource planning, program design, budgets, and cost recovery. This takes the form of formal testimony, comments, presentations, and/or informal meetings in the states of Georgia, Florida, North Carolina, South Carolina, Mississippi and in jurisdictions under the Tennessee Valley Authority. A copy of my resume is included as Exhibit FBW-1.

**Q. HAVE YOU BEEN AN EXPERT WITNESS ON ENERGY-EFFICIENCY MATTERS BEFORE THE NORTH CAROLINA UTILITIES COMMISSION?**

A. Yes, I filed expert witness testimony in response to Duke Energy Carolina's ("DEC") DSM/EE Recovery Riders in Docket Nos. E-7, Sub 1192, E-7, Sub 1230, and E-7, Sub 1249 and Duke Energy Progress' ("DEP" or "the Company") DSM/EE Recovery Riders in Docket Nos. E-2, Sub 1206, and E-2, Sub 1252.

**Q. HAVE YOU BEEN AN EXPERT WITNESS ON ENERGY-EFFICIENCY MATTERS BEFORE OTHER REGULATORY COMMISSIONS?**

A. Yes, I have filed expert witness testimony in Georgia related to Georgia Power Company's 2019 Demand Side Management application and in the five-year energy efficiency goal setting proceeding before the Florida Public Service Commission in 2019 for Florida Power & Light, Gulf Power, Duke Energy Florida, Tampa Electric Company, Jacksonville Electric Authority and Orlando Utilities Commission.

## II. Summary of Recommendations

**Q. WHAT RECOMMENDATIONS DO YOU HAVE FOR DEP?**

A. I have two main recommendations for DEP:

(1) Expeditiously finalize the evaluation and development of program recommendations proposed by Collaborative members for direct implementation or submission of program applications to the Commission for approval.

(2) Track efficiency savings associated with Collaborative-sponsored program recommendations and report them to both the Collaborative and in future DEP DSM/EE Recovery Rider filings.

**Q. WHAT RECOMMENDATIONS DO YOU HAVE FOR THE COMMISSION?**

A. I have three key recommendations for the Commission:

(1) Direct DEP to work in good faith with members of the Collaborative to produce a plan for how best to exceed 1% annual savings in each of the next six years, to be periodically updated and presented to the Commission as an appendix to future DEP DSM/EE Rider applications.

(2) Direct DEP to increase its low-income efficiency program budgets to at least match those of DEC on a per-residential customer basis, which would result in a floor of $5.4 million annually.

(3) Direct DEP to quantify and analyze the carbon savings associated with DEP's DSM/EE portfolio to both inform the work of the Collaborative and enable the Commission and other interested parties to track the impact of DSM/EE

resources towards achieving North Carolina's and Duke Energy's respective carbon reduction goals.

## III. DEP's 2020 Energy Savings Achievements

**Q. HOW DID DEP'S EFFICIENCY PERFORMANCE IN 2020 COMPARE TO PREVIOUS YEARS?**

A. DEP's reported energy efficiency savings were lower in 2020 than in each of the previous three years. However, DEP is to be commended for proactively adjusting its approach in the face of unprecedented challenges brought on by the COVID-19 pandemic.

In 2020, DEP delivered 307.2 gigawatt-hours ("GWh") of efficiency savings at the meter, equal to 0.70% of the previous year's retail sales[1]. This reflects a 12.2% decline in total savings from the previous year when the Company reported 350 GWh in annual efficiency savings. However, DEP still has not reached the 1% annual savings target agreed to in the Duke Energy-Progress Energy merger and continues to lag considerably behind DEC.[2]

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[1]DEP reports energy savings and projections as "Net at Plant" or at the generator level. A line loss factor of (1+0.051) obtained from DEP Response to SACE et al. Data Request 1-20 in Duke Energy Progress DSM/EE Rider Docket (E-2, Sub 1273), attached as Exhibit FBW-2, is used to convert total savings from Evans Exhibit 1 Total All Programs (no DSDR) to "at the meter." Previous year retail sales obtained from EIA Form 861 2019, Sales to Ultimate Customers.

[2] The Merger Settlement with SACE, South Carolina Coastal Conservation League, and Environmental Defense Fund calls for annual energy savings of at least 1% of prior-year retail sales beginning in 2015 and cumulative savings of at least 7% over the period from 2014 through 2018. The Merger Settlement was approved by the Public Service Commission of South Carolina in Docket No. 2011-158-E. The 1% savings target has also been memorialized in the mechanism governing North Carolina programs, which provides an opportunity for the Company to earn a bonus incentive for achieving savings of 1% or more of prior year retail sales. *Order Approving DSM/EE Programs and Stipulation of Settlement*, Docket No. E-7, Sub 1032 (Oct. 29, 2013).

**Table 1. Duke Energy Progress DSM/EE Performance 2017-2020**

| Vintage Year | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|
| At Meter Savings (GWh) [3] | 359.9 | 380.2 | 350.0 | 307.2 |
| Previous Year Variance (%) | - | 5.6% | -7.9% | -12.2% |

**Q. HOW DID DEP'S DSM/EE PERFORMANCE COMPARE TO ITS PROJECTIONS FOR 2020?**

A. In Docket E-2, Sub 1206, the Company projected annual energy savings for its entire portfolio equal to 315.1 GWh at the meter, or 0.72% of the prior-year's retails sales.[4] Because those projections preceded the COVID-19 pandemic and the lockdowns it precipitated, they understandably did not take those unanticipated circumstances into account. Ultimately, DEP's portfolio of programs achieved 97% of its projections for 2020, only slightly lower than forecasted in 2019. Historically, DEP's projections have nearly always underestimated its actual energy savings. The comparison highlights that, in 2020, the Company's projections were conservative enough that they were nearly achievable even during a global pandemic. The difference between the Company's DSM/EE performance and the Company's own projections is shown below in Table 2.

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[3] Generator savings 2018-2020 obtained from Evans Exhibit 1, Pages 1-5 filed in NCUC Docket No. E-2, Sub 1273; 2017 savings obtained Evans Exhibit 1, Page 7 filed in NCUC Docket No. E-2, Sub 1206. Converted to at the meter using line loss factor from Footnote 1.

[4]DEP reports energy savings and projections as "Net at Plant" or at the generator level. A line loss factor of (1+0.051) obtained from DEP Response to SACE et al. Data Request 1-20 in Duke Energy Progress DSM/EE Rider Docket (E-7, Sub 1273), attached as Exhibit FBW-2, is used to convert savings total savings from Evans Exhibit 1 including DSDR to "at the meter." Previous year retail sales obtained from EIA Form 861 2019, Sales to Ultimate Customers.

**Table 2.** DEP Projected vs. Actual Savings at the Meter[5]

| Year | Projected Savings (GWh) | Actual Savings (GWh) | Actual to Projected Variance (%) |
|---|---|---|---|
| 2017 | 333.8[6] | 359.9[7] | 7.8% |
| 2018 | 308.6[8] | 380.2[9] | 23.2% |
| 2019 | 324.5[10] | 350.0[11] | 7.9% |
| 2020 | 315.1[12] | 307.2[13] | (2.5%) |
| 2021 | 378.7[14] | | |
| 2022 | 397.7[15] | | |

**Q. WAS THE COMPANY'S EE PORTFOLIO COST-EFFECTIVE IN 2020?**

A. Yes. The value of DSM/EE programs continued to be cost-effective and delivered considerable financial value to customers. In 2020, DEP's DSM/EE portfolio had a Utility Cost Test ("UCT") score of 2.04 and a Total Resource Cost ("TRC") score of 1.82, though both of which were significantly lower than in 2019.[16] The total net present value ("NPV") of avoided costs in 2020 was also substantially lower than in previous years, but still amounted to approximately $136.6 million of financial benefit for customers.[17]

[5]Docket numbers referenced below report actual energy savings and projections as "Net at Plant" or at the generator level, but table summarizes at the meter for the sake of consistency of previous sections.
[6] Evans Exhibit 1, Page 9 filed in NCUC Docket No. E-2, Sub 1108.
[7] Evans Exhibit 1, Page 7 filed in NCUC Docket No. E-2, Sub 1206.
[8] Evans Exhibit 1, Page 7 filed in NCUC Docket No. E-2, Sub 1145.
[9] Evans Exhibit 1, Page 1 filed in NCUC Docket No. E-2, Sub 1273.
[10] Evans Exhibit 1, Page 7 filed in NCUC Docket No. E-2, Sub 1174.
[11] Evans Exhibit 1, Page 3 filed in NCUC Docket No. E-2, Sub 1273.
[12] Evans Exhibit 1, Page 7 filed in NCUC Docket No. E-2, Sub 1206.
[13] Evans Exhibit 1, Page 5 filed in NCUC Docket No. E-2, Sub 1273.
[14] Evans Exhibit 1, Page 5 filed in NCUC Docket No. E-2, Sub 1252.
[15] Evans Exhibit 1, Page 5 filed in NCUC Docket No. E-2, Sub 1273.
[16] DEP Response to SACE et al. Data Request 1-4 in Duke Energy Progress DSM/EE Rider Docket (E-2, Sub 1273), attached as Exhibit FBW-3.
[17] *Id*.

**Table 3. Duke Energy Progress DSM/EE Cost Effectiveness 2017-2020[18]**

| Vintage Year | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|
| Utility Cost Test (UCT) | 3.43 | 3.29 | 2.72 | 2.04 |
| Total Resource Cost (TRC) | 2.35 | 3.03 | 2.60 | 1.82 |
| Net Present Value (NPV) (Million) | $281.7 | $254.7 | $212.9 | $136.6 |

**Q. HOW DID RESIDENTIAL SAVINGS RELATE TO TOTAL SAVINGS IN 2020?**

A. Residential programs have made up the majority of savings in DEP's portfolio for the past several years and 2020 was no exception. Residential programs represented 72% of all savings in 2020.[19] One residential program, My Home Energy Report (MyHER), made up nearly half of DEP's total savings in 2020 at 48% of reported system energy reductions. As noted numerous times in previous years, I am concerned that the bulk of DEP's DSM/EE portfolio savings are from a behavioral program with such limited measure life persistence. This concern was further heightened by the Market Potential Study DEP presented to the Commission in its most recent integrated resource plan (IRP), which attributed 72-78% of its 5-year cumulative efficiency savings potential to behavioral programs.[20] We urge the Company to focus on implementing additional measures that achieve deeper and longer-lived savings in order to maintain a more balanced and robust program portfolio going forward.[21] These measures should include adding to or

[18] *Id*.
[19] Evans Exhibit 1, Page 5 filed in NCUC Docket No. E-2, Sub 1273.
[20] Nexant (submitted to Duke Energy), "Duke Energy North Carolina EE and DSM Market Potential Study" June 2020, p. 106.
[21] *Testimony of Forest Bradley-Wright on Behalf of the North Carolina Justice Center and Southern Alliance for Clean Energy*, Docket No. E-7, Sub 1192 (May 20, 2019).

modifying programs that target the largest residential end uses of electricity – such as space heating & cooling and water heating.

**Q. HOW DID NON-RESIDENTIAL SAVINGS RELATE TO TOTAL SAVINGS IN 2020?**

A. In 2020, DEP's non-residential programs made up just 28% of total energy efficiency savings.[22] DEP's non-residential efficiency program savings declined 17% from just the previous year, nearly double the level of decline seen for residential programs, most likely resulting from the economic decline brought on by the COVID-19 pandemic. However, even pre-pandemic, DEP demonstrated a troubling trend of being unable to meet projections for non-residential programs and falling savings among commercial and industrial customers. This broader trend has resulted in a 37% decrease in non-residential energy savings from 2018-2020.[23]

**Q. WHAT EFFECT DO COMMERICAL AND INDUSTRIAL OPT OUTS HAVE ON PERCENT OF ENERGY SAVINGS?**

A. Commercial and industrial opt outs continue to negatively impact DEP's ability to reach higher savings benchmarks due to this group's large share of energy consumption. In a departure from previous years, DEP did not provide a calculation of the percentage of its commercial and industrial customers that opted out of the DSM/EE riders as requested in discovery. The data it referenced in its data response was for North Carolina only, where in 2020 approximately 47.9% of DEP's commercial and industrial energy consumption opted out of the utility's

[22] Duke Energy Progress Response to SACE et al. Data Request 1-21 in Duke Energy Progress DSM/EE Rider Docket (E-2, Sub 1273), attached as Exhibit FBW-4.
[23] *Id.*

energy efficiency offerings (11,747 GWh[24] out of 24,509 GWh[25] of DEP's North Carolina non-residential retail sales).

Because commercial and industrial efficiency savings can be among the most economic, greater savings among these customers would likely translate into even higher utility-system cost reductions.

**Q. IS IT REASONABLE TO INCLUDE OPT-OUT CUSTOMERS IN A PERCENTAGE OF RETAIL SALES CALCULATION?**

A. Yes. By calculating energy savings compared to all retail sales, the Commission can observe the effect of the efficiency portfolio against actual customer energy consumption in a year. It is also important for the Commission to be able to readily review the impact that the opt-out provisions have on overall savings. Because DEP did not provide system level opt out figures, it is not possible to compare its 2020 efficiency performance as a percentage of retail sales with and without opt out customers as I have done in past proceedings. It is clear, however, that opt outs continue to drag down DEP's total efficiency savings, which could otherwise be much higher.

**Q. HOW DID DEP'S LOW-INCOME EFFICIENCY IMPACTS COMPARE TO PREVIOUS YEARS?**

A. DEP's low-income efficiency programs were negatively impacted to a considerable degree by the COVID-19 pandemic. In 2020, energy saved in the DEP Neighborhood Energy Saver program decreased by 84%,[26] making it the hardest-hit program in the entire portfolio. Unfortunately, this reduction in energy saving

[24] *Duke Energy Progress Direct Testimony of Shannon Listebarger*, Docket No. E-2, Sub 1273, p. 15.
[25] U.S. Energy Information Administration, Form EIA-861, Sales to Ultimate Customers, Early Release Data 2020.
[26] *Duke Energy Progress Direct Testimony of Robert Evans*, Docket No. E-2, Sub 1273, Evans Exhibit 1, p. 5.

services came at a time when low-income customers were facing the hardest economic circumstances in recent history. Likewise, the Multi-Family Energy Efficiency program, which benefits significant numbers of low-income customers, was similarly impacted with an 76% savings reduction in 2020. Both of these programs experienced declines that vastly exceeded the negative impact to total residential programs.

**Table 4. DEP Savings by Residential Customer / Program Type[27]**

| Customer/Program Type | Energy Savings (GWh) | | | % Change |
|---|---|---|---|---|
| | 2018 | 2019 | 2020 | 2019-2020 |
| Income-Qualified | 3.5 | 3.8 | 0.6 | -84% |
| Multi-Family | 13.8 | 11.9 | 2.8 | -76% |
| **All Residential Programs** | **254.1** | **257.4** | **231.6** | **-10%** |

Continued growth of efficiency savings for low-income customers has been a consistent focus at the Collaborative and Duke has shown a willingness to engage on this issue. However, as noted in my testimony last year in Docket E-2, Sub 1252, the budgets and impact of DEP's programs that aim specifically to serve low-income customers lag far behind what DEC has been delivering, which raises significant concerns. The time has come for DEP to match the recent performance of its sister company, as set forth in more detail below in Section VII of my testimony.

[27] *Id.*

## IV. Observations Concerning Duke Energy Progress' 2022 Savings Forecast

**Q. WHAT LEVEL OF SAVINGS DOES DEP PROJECT FOR 2022?**

A. DEP projects that it will achieve approximately 397.7 GWh of energy savings at the meter from both residential and non-residential programs in 2022.[28] This projection represents an increase from the 307.2 GWh of at the meter savings DEP reported for COVID-impacted 2020 (0.70% of prior-year retail sales), and a slight increase in savings from DEP's peak of 380.2 GWh (0.88%) in 2018.[29]

The central benchmark by which utility efficiency performance is commonly calculated and compared is efficiency savings as a percentage of the previous year's retail sales. But unlike previous years DEP objected to our discovery request to provide its percent annual savings for 2022, and in so doing withheld the 2021 retail sales forecast needed to make the calculation. Not only does this undermine a useful point of comparison with previous years, it is also problematic for comparing DEP's 2022 performance to the 1% savings target that has served as the primary benchmark for efficiency in the Carolinas since Duke and Progress Energy merged.

Despite the merger settlement, DEP has yet to achieve 1% annual savings nor has the Company ever forecasted achieving 1% savings in any prior DSM/EE Rider docket filing. By contrast, DEC exceeded 1% annual savings in 2017 and 2018, and nearly reached it again with 0.98% savings in 2019.[30] Even without the data

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[28] *Id.* at Evans Exhibit 1, p. 7.

[29] *Id.*

[30] *Direct Testimony of Forest Bradley-Wright on Behalf of the North Carolina Justice Center, North Carolina Housing Coalition, and Southern Alliance for Clean Energy*, Docket No. E-7, Sub 1230 at p. 7 (May 22, 2020).

needed to calculate DEP's annual percent savings for 2022, it is clear that unless DEP increases savings beyond its current forecast, the Company will continue to fall short of the 1% threshold and the higher performance of its sister company. DEP could still exceed its forecast and achieve savings greater than 1%, but given past performance it is unlikely to do so without a defined plan or direction from the Commission.

**Q. SHOULD DEP CONTINUE PURSUING HIGHER LEVELS OF SAVINGS IN 2022?**

A. DEP is forecasting savings for 2022 that are higher than it projected in its Docket No. E-2, Sub 1252 for 2021 (397.7 GWh of retail sales vs. 378.7 GWh, respectively). This is directionally appropriate, but still short of the longstanding goal of 1% annual efficiency savings that continues to be a long sought and highly emphasized priority for many Collaborative participants.

**Q. IF DEP IS PRESENTING CONSERVATIVE FORECASTS IN ITS ANNUAL RIDER FILINGS, IS THERE STILL VALUE IN SHOWING HOW IT WOULD ACHIEVE HIGHER SAVINGS LEVELS?**

A. Yes. Even if DEP has presented a conservative estimate of forecasted savings for 2022 for the purposes of establishing the rider, it should acknowledge in its DSM/EE Rider filings that the Commission, Public Interest Intervenors, and members of the Collaborative will be comparing the Company's 2022 savings forecast with the 1% annual savings target. DEP could additionally state its intent to strive for these higher levels, while indicating what course of action it believes would enable to successfully achieve those more ambitious goals.

## V. The 1% Annual Savings Target and Recent Changes to the Duke Performance Mechanism

**Q. ARE YOU AWARE OF A SETTLEMENT AGREEMENT THAT INCLUDED THE 1% TARGET IN DOCKET NO. E-2, SUB 931 CONCERNING DUKE'S DSM/EE COST RECOVERY MECHANISM?**

A. Yes. The 1% target was a key feature of the recently approved Settlement Agreement negotiated between DEP, DEC, the Natural Resources Defense Council ("NRDC"), SACE, Sierra Club, South Carolina Coastal Conservation League ("SCCCL"), North Carolina Sustainable Energy Association ("NCSEA"), and the North Carolina Attorney General's Office ("AGO"), (collectively the "Joint Parties"). That agreement was approved by the Commission in October 2020, and its provisions go into effect for the first time in 2022.[31]

**Q. HOW DOES THE COMMISSION'S 2020 ORDER CONCERNING DUKE'S DSM/EE COST RECOVERY MECHANISM IN DOCKET NO. E-2, SUB 931 RELATE TO THE 1% ANNUAL SAVINGS TARGET?**

A. The Commission's order modified the mechanism by which Duke's energy efficiency performance incentive payments are set, including establishing a $500,000 bonus incentive payment for any year during the four-year period of 2022-2025 where Duke achieves 1% of prior-year retail sales from efficiency. The Commission indicated that the purpose of the incentive is "to motivate the Company to aggressively pursue savings from cost-effective EE and DSM Programs." In addition to establishing the incentive, the Commission also directed the Collaborative to "study ways to implement a step approach to this type of incentive/penalty structure to potentially achieve even greater annual energy savings," which has yet to be done.

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[31] *Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms*, NCUC Docket No. E-2, Sub 931 (Oct. 20, 2020).

**Q. HAS DEP RESPONDED DIFFERENTLY TO REQUESTS FOR INFORMATION COMPARING ITS PERFORMANCE TO THE 1% TARGET IN THIS DOCKET COMPARED TO PAST PROCEEDINGS?**

A. Yes. In a departure from previous years, DEP objected to our discovery request seeking a calculation of its annual savings as a percentage of previous year's sales – by which a comparison to the 1% savings target can be made.[32] DEP's decision to object to the question this year is made more notable by the fact that the calculation itself is comparatively simple to produce, and that DEP is now eligible for a $500,000 performance bonus for reaching the 1% annual savings threshold.[33] In its objection, DEP states that it has not made this calculation, raising the question of whether the company intends to pursue the performance incentive bonus or of working in good faith with Collaborative members to develop plans for reaching 1% annual savings in future years. Furthermore, by failing to provide a response to our discovery request, DEP also withheld its projected 2021 retail sales forecast, thereby preventing the Public Interest Intervenors from having the data necessary to make the calculation of percent annual efficiency savings in spite DEP's objection.

**Q. SHOULD THE COMMISSION ASSESS DEP'S PERFORMANCE IN COMPARISON TO A 1% ANNUAL SAVINGS TARGET?**

A. Yes. The 1% annual savings target continues to be relevant for public policy purposes for several reasons. Notably, research suggests that energy efficiency savings trend higher in jurisdictions that have enacted savings targets.[34] The

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[32] DEP Response to SACE et al. Discovery Request 1-18, attached as Exhibit FBW-5.

[33] *Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms*, NCUC Docket No. E-2, Sub 931 (Oct. 20, 2020).

[34] See Gold, *et.al.*, *Next-Generation Energy Efficiency Resource Standards*, American Council for an Energy-Efficient Economy (August 2019), available at: https://www.aceee.org/sites/default/files/publications/researchreports/u1905.pdf.

Commission has also indicated its desire that Duke and stakeholders at the Collaborative work towards reaching higher levels of savings. To this end, a large number of clean energy and public interest advocates have contributed considerable amounts of time to this work at the Collaborative, while making clear that the 1% threshold is important to their participation in these efforts.

All of these factors speak to the continued relevance of the 1% annual savings threshold.

**Q. DID THE COMMISSION'S 2020 ORDER CONCERNING DUKE'S DSM/EE COST RECOVERY MECHANISM IN DOCKET NO. E-2, SUB 931 CHANGE THE PRIMARY COST EFFECTIVENESS TEST TO SUPPORT INCREASED ENEGY EFFICIENCY SAVINGS?**

A. Yes. In addition to the $500,000 performance incentive, the Commission changed the primary cost effectiveness test used in screening program offerings from the Total Resource Cost (TRC) test to the Utility Cost Test (UCT). In discussions at the Collaborative, Duke promoted the notion that this change will help to better value efficiency benefits for inclusion in DEP's DSM/EE portfolio and should help the Company expand its overall efficiency savings. I agree with this, especially given that the TRC, as previously applied, was asymmetrical and did not account for all benefits. Even with the switch to UCT as the new primary cost effectiveness test, the TRC will continue to be evaluated for informational purposes, and DEP is now working with the Collaborative to undertake a study of non-energy benefits (NEBs) that could result in more complete and accurate accounting of benefits for the TRC test in the future.

**Q. HAS CHANGING THE PRIMARY COST EFFECTIVENESS FROM TRC TO UCT RESULTED IN DEP PROJECTING HIGHER EFFICIENCY SAVINGS?**

A. No. Despite representations by the Company that changing from the TRC to the UCT would increase the availability of cost-effective savings, it has not. In response to discovery concerning the impact of this change on DEP's 2022 projections, the company stated:

> No additional savings are projected for 2022 using the UCT compared to TRC. There have been no changes to program offerings based on the shift from TRC to UCT for the 2022 projection.[35]

Moreover, between the time the Stipulating Parties submitted their Settlement Agreement and the Commission issued its Final Order, DEP completed its Market Potential Study using the now outdated TRC test, rather than the UCT. Therefore, DEP's IRP significantly understated the amount of available cost-effective DSM/EE.

Ultimately, it is important that the DSM/EE Rider and the IRP both reflect the full range of available cost-effective energy efficiency and demand response resources to ensure that ratepayers are not unduly burdened with costs that could be avoided through cost-effective investments in DSM/EE.

**Q. DO DUKE'S ENERGY EFFICIENCY ASSUMPTIONS IN THE IRP UNDERESTIMATE DSM/EE POTENTIAL??**

A. As I testified last year, there is an important intersection between Duke's integrated resource planning in the Carolinas and the investment in DSM/EE programs that are the focus of its annual DSM/EE Recovery Rider dockets. If, the DSM/EE assumptions used in the IRP underestimate[36] future energy saving potential,

[35] DEP Response to SACE et al. Data Request 1-36, attached as Exhibit FBW-6.

[36] DEC indicated in multiple stakeholder meetings that IRP inputs will be based on internal forecasts for at least the next five years. While DEC DSM/EE Recovery Rider projections for 2018 and 2019 were far closer to actual performance, previous filings were off by a substantial degree, typically underestimating actual savings by about 40%.

customers could wind up paying for more expensive energy, capacity, and delivery infrastructure rather than investing in less expensive strategies to eliminate energy waste. IRPs form the basis for a utility's resource acquisition decisions and underpin avoided cost calculations used in cost-effectiveness testing. Therefore, any flaws in how DSM/EE are treated in the IRP have important implications for this proceeding.

As detailed in testimony submitted by Jim Grevatt on behalf of SACE, Sierra Club, and NRDC in Duke's South Carolina IRP proceeding, there were several key deficiencies in the DSM/EE market potential study ("MPS") that Duke relies upon for setting energy and capacity savings levels in the IRP. Duke's MPS omitted emerging technologies and failed to consider changes to customer engagement strategies or programs designs that may increase customer participation. Additionally, as noted above, the MPS relied on the TRC test, which substantially undercounts economic savings potential, rather than the UCT.

**Q. HAVE REGULATORS ADDRESSED THE ISSUES RAISED CONCERNING DEP UNDERESTIMATING ENERGY EFFICIENCY RESOURCE POTENTIAL?**

A. While Duke's IRP proceeding in North Carolina is ongoing, the South Carolina Public Service Commission ("SC PSC") affirmed several of the issues raised by Mr. Grevatt, resulting in the following directives, including:[37]

> 2. Duke is required to use the UCT when developing EE/DSM scenarios and savings projections in its future IRPs, IRP updates, and market potential studies.
>
> 3. In future IRPs, IRP updates, and market potential studies, Duke must work with the EE/DSM Collaborative to identify a set of reasonable assumptions

[37] South Carolina Public Service Commission, *Order Requiring Modification to Integrated Resource Plans*, Docket No. 2019-225-E (June 28, 2021), paras. 2-4.

> surrounding 1) increased market acceptance of existing technologies and 2) emerging technologies to incorporate into EE/DSM saving forecasts. Duke should also work with members of the Collaborative to ensure that residential saving projections are not overly dependent on behavioral programs with short savings persistence. Further, Duke's next IRPs should identify which of the Collaborative's recommendations relating to market acceptance, emerging technologies, and types of programs were and were not adopted when developing market potential studies and IRPs.
>
> 4. In future IRPs, Duke must evaluate high and low EE/DSM cases across a range of fuel and C02 assumptions to better understand what level of EE/DSM should be implemented if fuel costs rise or higher CO2 costs are imposed.[38]

**Q. WHAT SUGGESTIONS DO YOU HAVE FOR HOW DEP CAN REACH HIGHER OVERALL LEVELS OF SAVINGS IN THE FUTURE?**

A. As noted above, my principal recommendation for DEP achieving higher overall savings is for it to develop a plan for reaching, exceeding, and sustaining annual efficiency savings of 1% over the next six years. With input from the Collaborative, this plan should consider opportunities for new, expanded, and enhanced efficiency program offerings, as well as refinements to program delivery practices and potential policy changes. It should also incorporate new approaches to evaluating efficiency potential using the UCT, include new technologies, and pursue higher levels of market participation, as directed by the South Carolina PSC. Without quantifying, striving, and tracking progress towards a defined savings target, like 1%, it is unlikely DEP will reach higher levels of efficiency savings.

**Q. HOW MIGHT THE EXPERIENCE OF UTILITIES WITH HIGHER EFFICIENCY PERFORMANCE INFORM PLANNING FOR DEP TO REACH 1% ANNUAL SAVINGS?**

A. DEP's sister company in the Carolinas, DEC, has historically delivered higher annual efficiency savings performance, providing a partial roadmap for DEP to

[38] South Carolina Public Service Commission, *Order Requiring Modification to Integrated Resource Plans*, Docket No. 2019-225-E (June 28, 2021) p. 86.

follow. Ample opportunities exist for identifying new savings strategies by examining the experience of other utilities as well. According to analysis by the American Council for an Energy Efficient Economy ("ACEEE"), 25 of the 52 largest utilities in the country have delivered annual savings in excess of 1%. Duke should assess what it can learn from the experience of peer utilities that achieve higher levels of savings and apply that to increase the savings it achieves in the Carolinas.

**Q. ARE YOU AWARE OF SIMILAR ANALYSIS THAT HAS BEEN DONE IN OTHER JURISDICTIONS?**

A. Recent work by ACEEE and Energy Futures Group ("EFG") highlighted new savings opportunities for Dominion Energy Virginia by analyzing the level of savings achieved by typical EE program types at a dozen peer utilities.[39] For each program type, EFG determined the depth of savings achieved on average by these utilities, expressed as the percentage of sector sales by program. While this analysis did not specifically include DEP, DEC was included and shows how the comparison can be used to identify opportunities for increased savings. For instance, DEC's residential behavioral programs (MyHER) deliver a higher than average percent of savings compared to total residential electric sales. But the savings that DEC achieves through deep efficiency programs of the type we have long recommended, like residential HVAC and residential whole house retrofit, are each about 80% <u>below</u> the average savings achieved across the comparison

[39] Liz Bourguet & Jim Grevatt, *Pathways for Energy Efficiency in Virginia*, Energy Futures Group (June 3, 2021), attached as Exhibit FBW-7.

utilities.[40] DEC's residential new construction[41] and non-residential prescriptive programs also substantially underperform compared to peer utilities. Each of these present an opportunity to pursue substantial new efficiency savings and provide DEP with a valuable source of comparative data that it could use to pursue new efficiency savings opportunities. As a general strategy for finding new savings opportunities for its customers, DEP can draw from this ACEEE/EFG analysis and widely available original source materials documenting the successful experiences of other utility efficiency programs from which the Company can build a plan to exceed 1% annual efficiency savings.

**Q. WHAT DO YOU RECOMMEND?**

A. I recommend that the Commission direct DEP to work in good faith with members of the Collaborative to produce a plan for how best to exceed 1% annual savings in each of the next six years, to be periodically updated and presented to the Commission as an appendix to future DEP DSM/EE Rider applications.

## VI. Update on Efforts by the Collaborative to Support Higher Efficiency Savings

**Q. HAS THE COLLABORATIVE WORKED TO DEVELOP STRATEGIES AND RECOMMENDATIONS FOR INCREASING FUTURE DEP DSM/EE SAVINGS?**

A. Yes. Understanding constraints and developing recommendations to increase future efficiency savings continues to be a central aim of discussions at the Collaborative.

[40] https://www.aceee.org/pathways-energy-efficiency-virginia, download "Modeling Tool" and see tab "Consolidated Savings."

[41] DEC does not currently offer an incentive program for residential new construction, though it has submitted a program application for Commission approval.

In 2019, the Collaborative prioritized exploring portfolio level opportunities and challenges and produced a summary report highlighting a range of program and policy opportunities to increase savings. Reflecting the perspective of many clean energy and customer advocacy organizations that participate in the Collaborative, the report affirmed a continued desire to see Duke sustain annual savings in excess of 1% of retail sales. It also identified several other complimentary performance targets.

In 2020, SACE, NCJC, and others efficiency advocates in the Collaborative shifted focus towards development of specific program recommendations detailed below that could help to prevent savings declines and achieve sustained annual savings levels in excess of 1% of retail sales.

In 2021, SACE, NCJC, and other stakeholders at the Collaborative are seeking to build on this past work, but have shifted towards development of a more specific and actionable plan. The intent is that this plan will quantify the number of kWh savings needed to achieve 1% savings and then be paired with program recommendations and proposed changes to policies and practices sufficient to reach that target. Accordingly, each of these individual opportunities should be evaluated for their expected future savings contributions, then added together and measured against the savings gap. The aim is for the plan to include enough new savings opportunities to exceed 1% annual savings for each of the next six years, with sufficient redundancy and flexibility to achieve the goal even if not every individual component is implemented. Progress will be up to Duke, as Advocates at the Collaborative cannot do this work without Duke's full cooperation on both analysis and solutions development.

**Q. HAVE COLLABORATIVE STAKEHOLDERS SUBMITTED PROGRAM RECOMMENDATIONS TO DUKE TO HELP INCREASE THE COMPANY'S EFFICIENCY SAVINGS?**

A. Yes. Over the past two years, stakeholders have submitted several program proposals for Duke's consideration along with supporting materials and presented them to the Collaborative, including:

- Low-Income Housing Tax Credit (LIHTC) (March 2019)
- Energy Star Retail Products Platform (January 2020)
- Program Savings from Building Codes and Standards (January 2020)
- Residential Low-Income Single-Family Heat Pump Water Heater Rental Program (June 2020)
- Non-Residential Multifamily Heat Pump Water Heater Rebate Program (June 2020)
- Manufactured Homes Retrofit Program (August 2020)
- Manufactured Home New and Replacement Programs (August 2020)

**Q. HAS DUKE ACTED ON ANY OF THE PROGRAM RECOMMENDATIONS BROUGHT FORWARD BY STAKEHOLDERS AT THE COLLABORATIVE?**

A. Duke has taken the Collaborative stakeholder program recommendations for internal review and consideration. But until recently, there has been little visible action towards implementing these recommendations, and Duke has yet to submit a program application to the Commission for approval based on any of the recommendations provided by members of the Collaborative. Among the various recommendations presented by Collaborative Stakeholders, Duke appears to have done the most to advance projects receiving an allocation of Low-Income Housing Tax Credits (LIHTC) with the Company's DSM/EE program offerings. But DEP reports that there is just one LIHTC project currently in the pipeline with status listed as Contract Approval, which is expected to yield 96.7 MWh of savings. This is a small step in the right direction that points to even more savings potential, as discussed further below. Through discovery, DEP also indicates that it expanded residential midstream offerings in response to a Collaborative stakeholder recommendation by working directly with manufacturers that do not use distributors, though in a separate discovery response the company states: "DEP does not track the incremental savings that can be attributed to Collaborative contributions."[42]

**Q. DID DEP PROVIDE ANY INDICATION TO THE COLLABORATIVE THAT IT PLANNED TO PROJECT INCREASES IN EXISTING PROGRAM SAVINGS FOR 2022?**

A. Not that I am aware of, which I find odd. It is common knowledge that the Collaborative has a strong interest in seeing DEP achieve higher efficiency savings, but to my recollection Duke representatives never mentioned that they were planning significant increases (of 25%-57%) in savings for many of its existing programs. Nor did it mention plans to substantially decrease multifamily program savings (by 30%), which likely would have been concerning to several Collaborative members. Among other implications, this means Collaborative

[42] DEP Response to SACE et al. Data Request 1-40, attached as Exhibit FBW-8.

members were not provided an opportunity to comment on or contribute to DEP's plans for substantially shifting savings levels for its existing programs in 2022.

**Q. IS IT YOUR SENSE THAT THE STAKEHOLDERS WHO PARTICIPATE IN THE COLLABORATIVE ARE SATISFIED WITH THE PROGRESS THAT HAS BEEN MADE?**

A. While I cannot speak for others, as time goes on, I have observed increasing frustration among Collaborative members at the slow progress and ambiguity surrounding Duke's decision-making process, including concern with Duke's handling of stakeholder program recommendations that I discussed above. Stakeholders are left wondering what to expect between the time of program recommendation submission and the Company either implementing program modifications or submitting a program application for approval at the Commission (or rejecting the recommendation, if that is their decision). I continue to believe that the Collaborative provides a valuable vehicle for this type of program development work, but to date there has been little to show for all the effort Collaborative members have contributed towards developing program concepts for inclusion in DEP's DSM/EE portfolio.

**Q. WHAT DO YOU RECOMMEND?**

A. I recommend that DEP expeditiously finalize the evaluation and development of program recommendations proposed by Collaborative members for direct implementation or submission of program applications to the Commission for approval. I also recommend that going forward DEP track the efficiency savings associated with Collaborative-sponsored program recommendations and report them to the Collaborative and in future DEP DSM/EE Recovery Rider filings. As I have previously testified, the Collaborative would benefit from more direction from the Commission, including clear timelines for producing specific deliverable outcomes. Without that direction, the tendency is for the Collaborative to be a place for discussion with no clear action.

## VII. Achieving Greater Efficiency Savings Impact for Low-Income Customers

**Q. WHAT HAS THE COMMISSION PREVIOUSLY SAID REGARDING THE DEVELOPMENT OF LOW-INCOME ENERGY EFFICIENCY PROGRAMS IN ITS PREVIOUS ORDERS?**

A. Consistent with its statements in previous years, the Commission's Final Order in the 2020 DEP Rider Docket E-2, sub 1252 stated:

> The Collaborative should continue to emphasize developing EE programs that assist low income customers in saving energy and reducing their energy burdens.

**Q. WHAT LEVEL OF SAVINGS DOES DEP PROJECT FOR ITS LOW-INCOME PROGRAMS IN 2022?**

A. Neighborhood Energy Saver accounts for 4.7 GWh of system energy reductions in DEP's estimated load impacts for 2022.[43] These programs are forecasted to account for just 1% of total residential energy savings in 2022. Nevertheless, if achieved, this would be a 27% increase in total energy savings for DEP's low-income programs compared to its 2019 pre-pandemic performance.

**Q. HOW DO OVERALL SAVINGS LEVELS FOR LOW-INCOME EFFICIENCY PROGRAMS AT DEP COMPARE TO THOSE AT DEC?**

A. In past years, DEP's low-income efficiency program performance has trailed far behind DEC. In 2019, DEP's 3.7 GWh of savings[44] paled in comparison to the more than 9 GWh DEC saved customers through its low-income efficiency programs.[45] For 2022, DEP is projecting 4.7 GWh of savings from its income

[43] Evans Exhibit 1, p. 5, NCUC Docket No. E-2, Sub 1273.
[44] Evans Exhibit 1, p. 3, Docket No. E-2, Sub 1252.
[45] Evans Exhibit 1, p. 3, Docket No. E-7, Sub 1230.

qualified efficiency programs. DEC's projected 9.8 GWh of low-income program savings for 2022[46] are 208% higher than DEP's and its annual budget is 265% higher, despite DEC having only 62% more residential customer accounts.[47]

**Q. HOW DO THE LOW-INCOME PROGRAMS OFFERED BY DEP COMPARE TO THOSE OFFERED BY DEC?**

A. Both DEP and DEC operate neighborhood-style low-income programs and both use the same program administrator, Honeywell Building Services. But DEC also operates the Income Qualified Weatherization program, administered by the North Carolina Community Action Association, which delivers deeper individual savings for each participating household. DEP launched a Buncombe County Pay for Performance pilot program in 2019 that includes deeper saving measures, but it currently contributes only a little to the Company's overall savings and has been less successful at delivering deep efficiency savings than DEC's income qualified weatherization program. As noted above, DEP's total low-income program savings also fall far short of the levels achieved by DEC.

**Q. WHAT ARE SOME OF THE AVAILABLE OPTIONS FOR EXPANDING DEEPER SAVING EFFICIENCY PROGRAMS FOR LOW-INCOME CUSTOMERS?**

A. There are several options for expanding deeper efficiency savings programs for DEP's low-income customers.

One option is to essentially replicate the regular DEC Income Qualified Weatherization program model, which I have advocated for in previous DEP Rider proceedings. The company could also deploy a modified version of this program,

[46] Evans Exhibit 1, p. 5, Docket No. E-7, Sub 1249.
[47] EIA 861 2020.

patterned off of the related Income Qualified Weatherization pilot program DEC offered in Durham from late 2018 through the end of 2019. Another option would be to dramatically scale up DEP's Pay for Performance Pilot, if such an expansion is deemed feasible and likely to deliver comparable results.

Or, DEP could increase funding and deployment of the expanded set of deeper efficiency saving measures for the Neighborhood Energy Saver[48] program that were previously approved by the Commission but never fully implemented due to the COVID-19 pandemic. If the Company pursued this route, it should also offer programming for low-income customers that includes HVAC equipment replacement, which is the largest source of energy use in a typical home and has been a major component of the DEC Income Qualified Weatherization program and the Durham Pilot. DEP could also build on recent progress by significantly expanding the number of LIHTC projects it serves.

These examples are illustrative and not intended to be exhaustive. Additional approaches could focus on particular housing types like multifamily and manufactured homes, or measures like heat pump water heaters, and new program marketing and delivery methods.

Regardless of which program designs are pursued, there will likely be trade-offs between potential total savings impact, cost per kWh savings, and average savings per participant. Whichever approach is ultimately taken, I recommend that these three factors be carefully and transparently weighed in the decision-making process

[48] Often called NES 2.0.

with a strong emphasis placed on optimizing programs to deliver meaningful impact for individual customers with high energy burdens.

**Q. WHAT IS THE BASIS OF YOUR ASSERTION THAT MORE POTENTIAL EXISTS TO COORDINATE DSM/EE PROGRAM PARTICIPATION WITH LIHTC?**

A. In 2020, the North Carolina Housing Finance Agency awarded forty-two 9% LIHTC projects and an additional twenty-four tax-exempt bond projects. South Carolina Housing awarded seventeen 9% LIHTC projects in 2020.[49] The LIHTC program provides a reliable, annual pipeline of projects available for energy efficiency investments. In the near future, I encourage Duke to work towards a target that 100% of projects applying for LIHTC in its service territory are reviewed to identify relevant DSM/EE program offerings, then report on an annual basis the number of LIHTC applications reviewed, the conversion rate for participation by these projects, and through which program. To do so, DEP should work with the state housing finance agencies to ensure all LIHTC projects move through its DSM/EE program offerings, without it depending on individual project administrators having to become aware of and initiate the process from their end.

**Q. HOW MIGHT LESSONS LEARNED FROM THE DEC DURHAM PILOT INFORM POTENTIAL CHANGES TO LOW-INCOME PROGRAM OFFERINGS IN THE FUTURE?**

A. As noted above, the Durham Pilot involved a modified delivery for the DEC Income-Qualified Weatherization Assistance program. This included providing a larger than typical package of improvements and working with low-income

[49] Housing Tax Credit (LIHTC), South Carolina State Housing Finance and Development Authority, *available at:* https://www.schousing.com/Home/HousingTaxCredits.

customers with comparatively high energy intensity. The program was also able to serve customers who were unable to access the federal Weatherization Assistance Program dollars due to overly long wait lists or health, safety, and incidental repair needs. According to DEC:

> For participation in the Durham Pilot, previous Neighborhood Energy Saver Program neighborhoods in Durham, NC were targeted via direct mail. Income eligibility for the Pilot was 200% of federal income poverty guidelines and their kWh usage per home square foot was 7 kWh or greater. These income-eligible customers were offered Tier 2 Weatherization (insulation, air sealing, and duct sealing, baseload lighting and domestic hot water measures), HVAC replacement and some health and safety improvements.[50]

In total, 206[51] homes were served, including 59[52] whose participation was made possible because they also received supplemental Helping Home Funds to address required health, safety, and incidental repair needs prior to the efficiency improvements.

A recently released EM&V report by Opinion Dynamics for the DEC Income Qualified Weatherization Program included a process evaluation of the Durham Pilot, which included the following statement:

> Duke Energy launched the Durham Pilot in 2018, with the intent to determine how and if the current DEC Weatherization Program design could be improved and expanded into Duke Energy Progress (DEP) service territory.[53]

The EM&V reports concludes its Process Findings summary by concluding:

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[50] *Testimony and Exhibits of Forest Bradley-Wright*, NCUC Docket No. E-7, Sub 1249 (May 10, 2021), Exhibit FBW-3.

[51] Opinion Dynamics (for Duke Energy Carolinas), "Low Income Weatherization Program (2016-2018) Evaluation Report – Final." April 2021, p. 5.

[52] Duke presentation to the Collaborative on July 14, 2021 entitled "Duke Energy's Income Qualified Weatherization Pilot," attached as Exhibit FBW-9.

[53] Opinion Dynamics (for Duke Energy Carolinas), "Low Income Weatherization Program (2016-2018) Evaluation Report – Final." April 2021, p. 41.

> [A] program design similar to the Durham Pilot could be a good option for bringing weatherization services to customers in South Carolina and/or the DEP service territory.[54]

I strongly concur with this conclusion and encourage DEP and the Commission to move forward expeditiously with developing a comparable deep efficiency program offering for its low-income customers.

**Q. ARE YOU AWARE OF ADDITIONAL HELPING HOME FUNDS BEING ALLOCATED TO ASSIST WITH DELIVERING EFFICIENCY SAVINGS TO LOW-INCOME CUSTOMERS?**

A. Yes, Public Interest Intervenors were parties to a partial Settlement Agreement with DEC and DEP during their most recent rate case proceedings in which both companies committed to providing a combined $3 million to the Helping Home Fund (HHF) over the next two years, for a total of $6 million. The Commission approved the settlement terms reached by the Stipulating Parties.

Last year, I submitted testimony in DEP's DSM/EE Rider proceeding on behalf of Public Interest Intervenors that emphasized the valuable role these funds play in augmenting traditional ratepayer funded low-income energy efficiency programs. For instance, 59 of the 206 customers served through DEC's Durham Pilot received HHF for vital repairs, without which they would typically not have been able to receive energy efficiency upgrades.

Now that these funds have been committed, it is crucial that this money be spent strategically to leverage and extend the impact of DEP and DEC's ratepayer funded low-income efficiency programs to the maximum extent. One constructive approach would be to use the HHF dollars almost exclusively to cover health,

[54] *Id.*

safety, and incidental repairs and/or fund additional improvements beyond the individual house budgetary limits in the ratepayer funded low-income programs for the households with the greatest need. In the near term, this could be accomplished by funding health, safety, and incidental repairs for customers being served by the Neighborhood Energy Saver 2.0 program, as well as providing HVAC replacement to these customers when needed. Going forward, I hope DEP will deploy a low-income deep efficiency program comparable to the DEC Income Qualified Weatherization program or the associated Durham Pilot, then use the HHF funds predominantly to supplement it with health, safety, and incidental repairs, serving customers who would otherwise be excluded from the ratepayer program, or providing additional measures beyond per household spending caps to match improvements to customer needs. Doing so will not only extend the life of these HHF dollars, it will lead to deeper savings that truly address energy burden while enabling many customers to participate who otherwise would have been turned away.

**Q. ARE YOU AWARE OF DEP'S COMMITMENT TO WORK WITH THE COLLABORATIVE TO DEVELOP AND SEEK APPROVAL FOR NEW LOW-INCOME ENERGY EFFICIENCY PROGRAMS?**

A. Yes, in the same rate case settlement, DEC and DEP agreed to work with the Stipulating Parties to develop additional low-income energy efficiency programs that will be presented to the Collaborative and, if supported by a majority of the group, will then be submitted to the Commission for approval.

Not only is this an important step in the right direction for advancing ongoing efforts to expand low-income efficiency program impact, it is also significant that this arrangement has a timeline with specific actions leading up to a program application filing to the Commission. Experience over the past two years at the Collaborative has shown that without such specific deliverables and deadlines, new program concepts get bogged down with no clear path to implementation. I would again urge the Commission to order the Company to make the Collaborative function more effectively by requiring specific deliverables to be met on a defined time scale.

**Q. HOW DOES DEP DETERMINE BUDGETS AND SAVINGS TARGETS FOR ITS LOW-INCOME EFFICIENCY PROGRAMS?**

A. Despite frequent conversations about expanding low-income efficiency programs, it is still unclear how DEP determines its low-income efficiency program budgets and savings targets. In response to this question during discovery, DEP stated:

> Budget and savings targets are determined by the filed participation numbers for our low-income programs. The participation numbers are generated based on the potential and the workload needed to successfully reach a high completion/penetration rate. Consideration is also given that these programs are not cost-effective.[55]

This July, Duke presented the Collaborative with two slides meant to explain the budget differences between DEP and DEC.[56] Like the discovery answer above, the Company's explanation at this meeting was also ambiguous, and raised new questions, such as:

- How can it be that programs are driven by customer demand when the number of customers served and budgets are predetermined and constrained by the vendor contract? For this reason, historical

[55] DEP Response to SACE et al. Data Request 1-30, attached as Exhibit FBW-10.
[56] Slides presented to the Collaborative on Income Qualified Budgeting on July 14, 2021, attached as Exhibit FBW-11.

performance is not a meaningful indicator of customer demand, which is known to be much larger.

- Are DEP's spending and savings levels (adjusted for differences in relative number of residential customers) so much lower than DEC's intentionally? If not, is DEP willing to bring its spending and savings levels up proportionately with a corresponding timeline?

**Q. WOULD YOU STILL RECOMMEND INCREASING DEP'S LOW-INCOME EFFICIENCY PROGRAM SAVINGS AND BUDGETS?**

A. I would. Unlike most non-income qualified efficiency programs DEP offers that are driven by individual customer demand, the Neighborhood Energy Saver program is delivered by third parties (such as Honeywell) with fixed budgets that are set by DEP. From the answer DEP provided above regarding its low-income programs, it seems that the kWh savings are based on the number of measures or customers that the program administrators are contracted by DEP to serve. Thus, it would appear that the key limiting factor in how many customers get served and at what level of savings is DEP's internal budget setting and not the scale of customer need. If DEP brought its annual budget for income qualified efficiency programs up to the levels proposed by DEC for 2022 (adjusted proportionately based on residential customer counts), this would equate to $5.4 million annually.

**Q. WHAT DO YOU RECOMMEND?**

A. I recommend that the Commission direct DEP to increase its low-income efficiency program budgets to at least match those of DEC on a per-residential customer basis, which would result in a floor of $5.4 million annually. DEP should then work with the Collaborative on setting new savings targets for its income-qualified programs, which would then be reported to the Commission in its next DSM/EE Recovery Rider filing.

## VIII. Implications of the COVID-19 Pandemic

**Q. AT A HIGH LEVEL, WHAT IMPLICATIONS DID THE COVID-19 PANDEMIC HAVE FOR DEC'S DSM/EE PERFORMANCE IN 2020?**

A. DEP performed better than many other major utilities in the region, as discussed in greater detail below. This was in part because DEP was among the first utilities in the Southeast to implement new safety protocols enabling it to resume some in-home energy efficiency services. Again, DEP is to be commended for how it responded to the pandemic, which indicates a level of commitment, flexibility, and initiative that will serve the Company well if it accepts the challenge of pursuing the savings target of 1% of prior-year retail sales.

**Q. HOW DID DEP'S APPROACH TO PROGRAM DELIVERY AND ITS OVERALL ENERGY EFFICIENCY PERFORMANCE DURING THE PANDEMIC COMPARE TO OTHER UTILITIES?**

A. In the early days of the pandemic, on-site efficiency services ground to a halt for DEP and all utilities across the country. This led to significant declines in efficiency program savings. Unfortunately, the steepest declines were often in programs that serve, low-income customers – the very people who needed them most. DEP was among the first utilities in the Southeast to implement new safety protocols and resume in-home energy efficiency services after the pandemic. The exception, however, were DEP's low-income and multi-family programs, which saw steep savings declines of 84% and 76% respectively.

DEP's overall energy efficiency performance was relatively high in comparison to several other utilities in the region, particularly those in Georgia and Florida.

However, DEP's performance trailed far behind that of Entergy Arkansas, which was actually able to improve program performance in spite of the pandemic. Notably, the Arkansas Public Service Commission has established annual efficiency savings targets of 1.2%, which Entergy Arkansas was able to surpass even during the pandemic. Below is a table of selected utilities for comparison:

**Table 5. Energy Efficiency Performance of Selected Utilities 2019-2020**

| Utility Name | 2019 | 2020 |
|---|---|---|
| Entergy Arkansas[57] | 1.10% | 1.35% |
| Duke Energy Progress | 0.78% | 0.70% |
| Georgia Power[58] | 0.46% | 0.28% |

**Q. IN WHAT WAYS CAN ENERGY EFFICIENCY BE PART OF A STRATEGY TO ASSIST CUSTOMERS IMPACTED BY THE PANDEMIC WHILE REDUCING THE COST TO ALL CUSTOMERS FOR UNCOLLECTIBLE BILLS?**

A. For customers that struggled financially during the pandemic, energy efficiency improvements could provide extra money to help them afford current and past due electric bills that are now in repayment. DEP knows exactly which customers have overdue balances and has the opportunity to target deployment of its efficiency program services directly to those customers.

Programs to serve low-income customers with past due bills could come in a number of different forms, ranging from customer self-install kits combined with a personalized virtual consultation, to deeper retrofit programs potentially patterned after those offered by DEC's Income Qualified Weatherization Program

[57] Performance calculated using net savings and total retail sales from Entergy Arkansas Standardized Annual Reporting Workbook for 2020 Program Year filed in APSC Docket No Docket No. 07-085-TF. Net savings for 2020 found in "Table 1" tab; all other figures used are found in "Prior Year Portfolio."

[58] Calculated using EIA Form-861 for all figures except for 2020 savings, which were obtained from the 2020 Fourth Quarter DSM Report filed in Georgia PSC Docket No. 42311 (Feb. 15, 2021), *available at*: https://psc.ga.gov/search/facts-document/?documentId=184364.

and its Durham Pilot Program. Participation in efficiency programs could even be matched with partial debt forgiveness.

Ultimately, these steps could make enough of a difference for customers to complete their repayment plans and prevent uncollectible bills from being passed on to the general body of ratepayers. Doing so could also prevent disconnections and the attendant consequences that can result, like damaged credit scores, additional financial challenges, health risks, and in some cases eviction.

## IX. The Role of DSM/EE for Achieving North Carolina's Decarbonization Targets

**Q. HAS DUKE ENERGY MADE COMMITMENTS TO REDUCE ITS CARBON EMISSIONS?**

A. Yes. Duke Energy has made a commitment to its customers and shareholders to reduce carbon dioxide emissions by 50% by the year 2030, and further to net zero by 2050. [59]

**Q. HOW DO DEP'S DSM/EE PROGRAMS CONTRIBUTE TO MEETING THESE DECARBONIZATION OBJECTIVES?**

A. Energy saved through Duke's DSM/EE programs reduce total energy waste and lessen reliance on the Company's fossil fuel generators. As such, DSM/EE is one of the most effective means by which the utility can lower carbon emissions. Duke has specifically highlighted the relationship between energy efficiency and reaching its net zero goal, stating:

> Some of the most effective carbon reductions we can make involve helping customers avoid energy usage in the first place. Again, regulatory or legislative policies related to climate change can prove to be a driver for opportunities for increased deployment of energy efficiency.[60]

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[59] Achieving a Net Zero Carbon Future, Duke Energy 2020 Climate Report. Link: https://desitecoreprod-cd.azureedge.net/_/media/pdfs/our-company/climate-report-2020.pdf?.
[60] *Id.*

**Q. HOW DO ANNUAL DSM/EE RECOVERY RIDER PROCEEDINGS INTERSECT WITH THE GOVERNOR'S EMISSION REDUCTION COMMITMENTS?**

A. As detailed at greater length in testimony I filed for DEC's DSM/EE Rider earlier this year,[61] in 2018, North Carolina Governor Roy Cooper committed to reducing greenhouse gas emissions by 40% in all sectors by 2025.[62] The corresponding statewide Clean Energy Plan ("CEP") went further and established an overall goal of reducing *power sector* emissions by 70% from 2005 levels by 2030.[63] As one of the largest utilities in the state, Duke Energy Progress is a substantial contributor to power sector emissions in North Carolina. As noted above, efficiency not only offsets the need for fossil fuel generation, it is the least cost energy resource, making expansion of DEP's DSM/EE programs an essential tool for achieving North Carolina's emission reduction commitments.

**Q. HAS DEP REPORTED ON THE CARBON REDUCTION IMPACT OF ITS DSM/EE PORTFOLIOS?**

A. No, to my knowledge DEP has not reported the carbon reduction impact of its DSM/EE portfolios, neither in its DSM/EE Rider filings nor anywhere else. While general estimates can be made using per megawatt-hour emissions rates, it would be instructive for the Company to conduct and provide its own analysis. Rather than generalizing with an annual average, such an analysis could match efficiency savings with the corresponding marginal emissions rate of the power generation it

[61] *Testimony and Exhibits of Forest Bradley-Wright*, NCUC Docket No. E-7, Sub 1249 (May 10, 2021).
[62] Executive Order No. 80, North Carolina's Commitment to Address Climate Change and Transition to a Clean Energy Economy, Governor Roy Cooper. October, 2018, *available at:* https://governor.nc.gov/documents/executive-order-no-80-north-carolinas-commitment-address-climate-change-and-transition.
[63] North Carolina Clean Energy Plan (CEP), North Carolina Department of Environmental Quality (NCDEQ), October 2019, *available at:* https://files.nc.gov/governor/documents/files/NC_Clean_Energy_Plan_OCT_2019_.pdf.

offsets to account for key factors like time of day, time of year, and location. Such an exploration could enable consideration of not only the emissions reductions resulting from total energy savings, but also factor in the performance of its DSM/EE portfolio during specific times of the year, including during peak vs. off-peak hours.

**Q. DO YOU HAVE ANY RECOMMENDATIONS FOR THIS PROCEEDING CONCERNING CARBON EMISSIONS TRACKING?**

A. Yes. The Commission should direct DEP to report carbon reductions from its DSM/EE portfolios and discuss future strategies to decarbonize through its portfolio in DSM/EE recovery rider dockets going forward. Doing so would provide the Commission, and the public, with important insight into the relationship between investments made in DEP's DSM/EE programs and the utility's progress towards achieving the Company and the State's decarbonization goals. This information could also prove useful in aiding the Company to optimize program delivery to increase carbon emissions reductions. To my knowledge, there is no other proceeding where DEP reports the carbon emissions reductions alongside its annual DSM/EE portfolio savings results. The annual DSM/EE Rider docket would appear to be the best place for regular reporting of this data.

## X. Conclusion

**Q. DO YOU HAVE ANY CONCLUDING STATEMENT?**

A. Yes, I want to thank the Commission for the Orders it has issued in various proceedings over the past year that facilitate improvements and expansions of DEP's DSM/EE portfolio, as well as policy changes that continue to evolve the underlying policy framework for DSM/EE in North Carolina, which is the foundation of this work. I respectfully ask for the Commission's consideration of the actionable recommendations summarized at the beginning of this testimony. Even as there is much still to achieve, what has been accomplished already should be a source of great pride, as it continues to keep North Carolina ahead of its peers in the Southeast region. This concludes my testimony.

BY MR. MOORE:

Q Mr. Bradley-Wright, did you prepare a summary of your testimony?

A Yes, I did.

Q Would you please read your summary to the Commission.

A Indeed. Commissioner Brown-Bland, fellow Commissioners, I thank you for the opportunity to speak today. My name is Forest Bradley-Wright.

I am the energy Efficiency Director for the Southern Alliance for Clean Energy. I'm appearing on behalf of the North Carolina Justice Center, the North Carolina Housing Coalition, and the Southern Alliance for Clean Energy. I appreciate the opportunity to testify today.

In 2020, Duke Energy Progress' Efficiency Savings declined by 12.2 percent and the company, once again, fell short of the 1 percent annual savings target that it agreed to in the Duke and Progress Energy merger.

Some of this most recent decline can be explained by the Covid 19 pandemic and its impact on delivery of in-home efficiency services.

DEP still lags considerably behind its

neighboring operating company, Duke Energy Carolinas, which is also troubling, given the lower levels of investment that DEP has directed towards its low-income energy efficiency programs.

My testimony makes several suggestions to ensure that these concerning trends are reversed. Unfortunately, Duke Energy Progress' forecast for efficiency savings in 2022, once again, falls short of its sister company, Duke Energy Carolinas, and the 1 percent savings target.

Many Collaborative members have made it clear that the 1 percent savings target is important to their participation.

To that end, Collaborative members have contributed considerable amounts of time and submitted numerous program proposals to help to increase efficiency savings.

But as my testimony details, there's been little visible action toward implementing those recommendations, and Duke has yet to submit a collaborative recommended program application to the Commission for approval.

In the past year, North Carolina Utilities Commission has approved a switch to the utility cost test and authorized a half million dollar performance bonus for Duke Energy Progress reaching 1 percent annual savings, which should both aid and induce the company to deliver higher efficiency savings.

Yet Duke savings forecast does not reflect new savings opportunities from use of the utility cost test, and the company does not appear to have a plan for reaching 1 percent annual savings in 2022.

In fact, the company claims not to have even calculated what it would take to reach that mark. Meanwhile, Duke Energy Carolinas and nearly half of the nation's large utilities have exceeded 1 percent annual savings.

Suggestiveness is an achievable goal, but it is one Duke Energy Progress is unlikely to reach if it doesn't have a plan to do so.

Thus, I urge the Commission to require DEP to develop and submit such a plan and urge the Company to renew its efforts to work with members of the Collaborative to develop such a plan for implementation.

My testimony next addresses DEP's low-income energy efficiency programs. I note that progress has been made on this issue over the last several years.

Sadly and explicably, however, savings and spending on DEP's low-income programs have trailed far behind those at DEC.

My testimony encourages the Commission to direct DEP to proportionately increase its low-income efficiency program budgets up to DEC levels, which would be approximately $5.4 million annually, and to work with the Collaborative and draw insight from its sister company to develop offerings that increase total savings and provide more meaningful bill reductions for individual low-income customers.

I ask that the Commission consider providing more explicit direction in its order in this proceeding such as deliverables and timelines, like those of his order from the low-income affordability collaborative and rate design collaborative.

Doing so should lead to greater

progress in these important issues. Finally, my testimony discusses the links between this proceeding and the decarbonization targets included in the North Carolina Clean Energy plan.

As Duke Energy's 2020 climate report noted, Demand-Side Management and Efficiency are some of the most effective means of carbon reduction.

Nevertheless, to my knowledge, the company has never quantified and reported the carbon reduction impact of its DSM/EE portfolio.

My testimony argues that these annual recovery rider proceedings can and should be a place to ensure that DEP's DSM/EE efforts are aligned with the State's goals in the Clean Energy Plan and the Company's own carbon reduction goals.

The Commission should direct DEP to track and report carbon reductions from its DSM/EE efforts.

Doing so would provide Commission and the public with valuable insight into the link between investment in DSM/EE programs and decarbonization of our electric system.

Thank you, again, for the opportunity to address you today. This concludes my summary.

MR. MOORE: Thank you. Mr. Bradley-Wright is available for cross-examination and Commission questions.

COMMISSIONER BROWN-BLAND: Is there cross-examination for this witness, beginning with the Company, the Applicant?

MS. FENTRESS: No cross. Thank you.

COMMISSIONER BROWN-BLAND: CIGFUR?

MS. CRESS: No questions. Thank you.

COMMISSIONER BROWN-BLAND: CUCA?

MR. SCHAUER: No questions.

COMMISSIONER BROWN-BLAND: And the Public Staff?

MS. LUHR: No questions.

COMMISSIONER BROWN-BLAND: Are there questions from the Commissioners?

(No response)

COMMISSIONER BROWN-BLAND: I'm not seeing any, so Mr. Bradley-Wright, you get off light today.

MR. BRADLEY-WRIGHT: Pleasure to be here. Thank you.

COMMISSIONER BROWN-BLAND: Mr. Moore.

MR. MOORE: Yes. At this time, I would like to move Mr. Bradley-Wright's Exhibits 1 through 11 into evidence as marked.

COMMISSIONER BROWN-BLAND: Without objection, they will be received into evidence. Mr. Bradley-Wright, you are free to -- you're excused. We are proceeding along to the Public Staff.

(WHEREUPON, Exhibits FBW-1 through FBW-11 are admitted into evidence.)

MS. LUHR: Thank you. The Public Staff now calls David Williamson to the stand.

DAVID M. WILLIAMSON;
having been duly affirmed,
testified as follows:

COMMISSIONER BROWN-BLAND: Ms. Luhr.

DIRECT-EXAMINATION BY MS. LUHR:

Q Mr. Williamson, would you please state your name, business address and position, for the record.

A My name is David Williamson and I'm an engineer with the Public Staff's Energy Division, and my address is 430 North Salisbury Street, Raleigh, North Carolina.

Q And on September 9th, 2021, did you prepare and cause to be filed testimony consisting of 24 pages, an appendix, and two exhibits?

A That's correct.

Q Do you have any changes or corrections to your testimony appendix or exhibits?

A No, I do not.

Q And if you were asked the same questions today, would your answers be the same?

A Yes, they would.

MS. LUHR: And we would request that Mr. Williamson's testimony be admitted into evidence as if given orally from the witness stand and that his exhibits be marked.

COMMISSIONER BROWN-BLAND: Without objection, Mr. Williamson's testimony will be received into evidence and treated as if given orally from the witness stand. And his exhibits will be identified as they were marked when prefiled, as well as the appendix.

MS. LUHR: Thank you.

(WHEREUPON, Williamson Appendix A and Exhibits 1 & 2 are marked for identification as prefiled.)

(WHEREUPON, the prefiled direct

testimony of DAVID M. WILLIAMSON
is copied into the record as if
given orally from the stand.)

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1273

| | | |
|---|---|---|
| In the Matter of | ) | |
| Application by Duke Energy Progress, | ) | TESTIMONY OF |
| LLC, for Approval of Demand-Side | ) | DAVID M. WILLIAMSON |
| Management and Energy Efficiency | ) | PUBLIC STAFF – NORTH |
| Cost Recovery Rider Pursuant to N.C. | ) | CAROLINA UTILITIES |
| Gen. Stat. § 62-133.9 and Commission | ) | COMMISSION |
| Rule R8-69 | | |

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**

**DOCKET NO. E-2, SUB 1273**

**Testimony of David M. Williamson**

**On Behalf of the Public Staff**

**North Carolina Utilities Commission**

**September 9, 2021**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND PRESENT POSITION.**

A. My name is David M. Williamson. My business address is 430 North Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am a Utilities Engineer with the Energy Division of the Public Staff, North Carolina Utilities Commission.

**Q. BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

A. My qualifications and duties are included in Appendix A.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to present the Public Staff's analysis and recommendations with respect to the following aspects of the June 15, 2021 application, testimony, and exhibits, and August 11, 2021 supplemental testimony and exhibit of Duke Energy Progress, LLC (DEP or the Company), for approval of its demand-side management (DSM) and energy efficiency (EE) cost recovery rider for 2022 (2022 Rider).

This testimony discusses: (1) the portfolio of DSM/EE programs included in the proposed 2022 Rider, including modifications of those programs made pursuant to the Flexibility Guidelines;[1] (2) the ongoing cost-effectiveness of each DSM/EE program; (3) the concerns of the Public Staff with various DSM/EE programs going forward; and (4) the evaluation, measurement, and verification (EM&V) studies filed as Exhibits A through D to the testimony of Company witness Robert P. Evans, and the additional EM&V study filed as Evans Supplemental Exhibit E to the supplemental testimony of witness Evans.

**Q. WHAT DOCUMENTS HAVE YOU REVIEWED IN YOUR INVESTIGATION OF DEP'S PROPOSED 2022 RIDER?**

A. I reviewed the application and supporting testimony and exhibits, the Company's supplemental testimony and exhibits, and DEP's responses to Public Staff data requests. In addition, I reviewed previous Commission orders related to DEP's DSM and EE

[1] The "Flexibility Guidelines" were included as Attachment A to the Cost Recovery and Incentive Mechanism approved by the Commission by Order dated January 20, 2015 in Docket No. E-2, Sub 931.

programs and cost recovery rider proceedings, including the Commission's Order Approving DSM/EE Rider, Revising DSM/EE Mechanism, and Requiring Filing of Proposed Customer Notice issued November 27, 2017, in Docket No. E-2, Sub 1145, which revised the Cost Recovery and Incentive Mechanism originally approved in Docket No. E-2, Sub 931 (2017 Mechanism). I also reviewed the Cost Recovery and Incentive Mechanism approved on October 20, 2020 in the Commission's Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms in Docket No. E-2, Sub 931 (2020 Mechanism).

**Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS.**

A. The Public Staff makes the following recommendations to the Commission:

1. That the method for calculating the Reserve Margin Adjustment Factor, as proposed, be accepted and used for the calculation of avoided capacity benefits for EE measures for future vintages;

2. That the Company work with the Public Staff in an expeditious manner to draft language to incorporate in its cost recovery mechanism to reflect inclusion of the reserve margin adjustment factor; and

3. That the Evaluation, Measurement, and Verification reports filed by DEP as Evans Exhibits A through D and Evans Supplemental Exhibit E be accepted.

**Q. ARE YOU PROVIDING ANY EXHIBITS WITH YOUR TESTIMONY?**

A. Yes. I have two exhibits, described below:

- Exhibit 1: Proposed Cost Effectiveness Scores for Vintage Years 2020, 2021, and 2022; and
- Exhibit 2: Current Actual Cost Effectiveness Scores for Vintage Years 2018, 2019, and 2020.

DSM/EE Programs in the 2022 Rider

**Q. PLEASE IDENTIFY THE DSM/EE PROGRAMS FOR WHICH DEP IS SEEKING COST RECOVERY THROUGH THE DSM/EE RIDER IN THIS PROCEEDING.**

A. In its proposed 2022 Rider, DEP included the costs and incentives associated with the following programs:

- Residential
  - EE Education Program (Sub 1060)
  - Multi-Family EE Program (Sub 1059)
  - My Home Energy Report (MyHER) Program (formerly the EE Benchmarking Program) (Sub 989)
  - Neighborhood Energy Saver (Low-Income) Program (Sub 952)
  - Residential Smart $aver EE Program (formerly HEIP) (Sub 936)
  - New Construction Program (Sub 1021)
  - Load Control Program (EnergyWise Home) (Sub 927)

- Save Energy and Water Kit Program (Sub 1085) (now part of the EE Appliance and Devices Program)
- Energy Assessment Program (Sub 1094)
- Low-Income Weatherization Pay for Performance Program (Sub 1187)
- Energy Efficient Appliance and Devices Program (Sub 936 and 1174)

- Non-Residential
  - Non-Residential Smart $aver Energy Efficient Products and Assessment Program (formerly Energy Efficiency for Business Program) (Sub 938)
  - Non-Residential Smart $aver Performance Incentive Program (Sub 1126)
  - Small Business Energy Saver Program (Sub 1022)
  - CIG Demand Response Automation (CIG DRA) Program (Sub 953)
  - EnergyWise for Business (Sub 1086)
- Combined Residential and Non-Residential
  - Energy Efficient Lighting Program (EE Lighting) (Sub 970)

- Distribution System Demand Response (DSDR) Program (Sub 926)

Each of these programs has received Commission approval as a new DSM or EE program and is eligible for cost recovery in this proceeding under N.C. Gen. Stat. § 62-133.9, subject to certain program-specific conditions imposed by the Commission.

Since initial program approval, DEP has modified several of these programs to add or remove measures, consistent with the Flexibility Guidelines, to enhance the programs' cost-effectiveness and address changing market conditions and technologies. In each case, DEP either sought Commission approval or provided notice of those modifications in compliance with those guidelines.

I also note that since the last rider proceeding, DEP has received Commission approval to modify the Residential Multi-Family EE, EnergyWise Home, and Small Business Energy Saver programs.

Cost Effectiveness

**Q. HOW IS THE COST-EFFECTIVENESS OF DEP'S DSM/EE PROGRAMS EVALUATED?**

A. The Public Staff reviews the cost-effectiveness of the individual DSM/EE programs when they are proposed for approval and then annually in the rider proceedings. Pursuant to both the 2017 Mechanism and 2020 Mechanism, cost-effectiveness is evaluated at both the program and portfolio levels. The Public Staff reviews cost-effectiveness using the Utility Cost (UC), Total Resource Cost (TRC), Participant, and Ratepayer Impact Measure (RIM) tests. Under each of these four tests, a result above 1.0 indicates that a program is cost-effective.

A program may be above 1.0 on one or more tests, and below 1.0 on other tests. The Public Staff, as well as the Revised Mechanism, places greater weight on the UC test.

The TRC test represents the combined utility and participant benefits that will result from implementation of the program; a result greater than 1.0 indicates that the benefits outweigh the costs of a program to both the utility and the program's participants. A UC test result greater than 1.0 means that the program is cost beneficial[2] to the utility (the overall system benefits are greater than the utility's costs, including incentives paid to participants). The Participant test is used to evaluate the benefits against the costs specific to those ratepayers

[2] "Cost beneficial" in this sense represents the net benefit achieved by avoiding the need to construct additional generation, transmission, and distribution facilities related to providing electric utility service, and/or avoiding energy generation from existing or new facilities or purchased power.

who participate in a program. The RIM test is used to understand how ratepayers who <u>do not</u> participate in a program will be impacted by the program.

**Q. HOW IS COST-EFFECTIVENESS EVALUATED IN DSM/EE RIDER PROCEEDINGS?**

A. In each DSM/EE rider proceeding, DEP files the projected cost-effectiveness of each program and for the portfolio as a whole for the upcoming rate period (Evans Exhibit 7). Subsequently, when new DSM/EE programs are approved under Commission Rule R8-68, potential cost-effectiveness is evaluated over a three to five year period using estimates of participation and measure attributes that can be reasonably expected over that period. The evaluations in DSM/EE rider proceedings look more specifically at the actual performance of a typical measure, providing an indication of what to expect over the next year. Each year's rider filing is updated with the most current EM&V data and other program performance data.

**Q. HOW DOES THE PUBLIC STAFF ASSESS COST-EFFECTIVENESS IN EACH RIDER?**

A. The Public Staff compares the cost-effectiveness test projections from previous DSM/EE proceedings to the current filing, and develops a trend of cost-effectiveness projections that serves as the basis for the Public Staff's recommendation on whether a program should: (1) continue as currently implemented, (2) be watched for signs of continued decreasing cost-effectiveness combined with Company efforts to improve cost-effectiveness, or (3) be terminated.

**Q. HOW DO THE FORWARD-LOOKING COST-EFFECTIVENESS TEST SCORES FILED IN THIS RIDER COMPARE TO SCORES IDENTIFIED IN PREVIOUS RIDERS?**

A. While many programs continue to be cost-effective, the TRC and UC scores as filed by the Company for all programs have a natural ebb and flow over the years of DSM/EE rider proceedings, meaning that the value of the inputs used in determining their scores change over time. Such changes are mainly driven by updates to the avoided cost rate determinations. In addition, changes to cost-effectiveness are also attributable to updates in the unit savings as determined through EM&V of the program. As programs mature and baseline standards increase, or as avoided cost rates decrease, it becomes more difficult for a program to produce cost-effective savings. On the other hand, some programs have experienced greater than expected participation, which usually results in greater savings per unit cost, generally increasing cost-effectiveness.

Changes in the Company's forward-looking cost-effectiveness test scores are shown for Vintage Years 2020, 2021, and 2022 in Williamson Exhibit No. 1.

In addition to the forward-looking cost-effectiveness test results, as most of the EM&V reports for the Company's portfolio of programs are completed, the Company has been able to provide the Public Staff with updated, actual cost-effectiveness test results for each program and program year over the Vintage Years 2018, 2019, and 2020.

**Q. HOW DO THE ACTUAL COST-EFFECTIVENESS TEST SCORES COMPARE TO THE FORWARD-LOOKING SCORES IDENTIFIED IN PREVIOUS RIDERS?**

A. Understanding that the incorporation period of EM&V within the portfolio may be different from one program to another, having a rolling record of actual cost-effectiveness results provides the Public Staff with confirmation that the activities within the portfolio have been and continue to be worthwhile. In addition, actual test results highlight programs that ultimately do not perform at or above the original projection. The actual cost-effectiveness results for DEP's portfolio of programs are shown in Williamson Exhibit No. 2. These test results are a reflection of the annual updates in cost-effectiveness due to completed EM&V and finalized participation numbers.

The current state of actual cost-effectiveness is showing a downward trend for most programs, with regard to the TRC and UC tests. The remaining programs appear to be stable with their annual TRC and UC test results.

## Program Performance

**Q. PLEASE DISCUSS THE PERFORMANCE OF THE PORTFOLIO.**

A. The Company's DSM/EE portfolio offers a wide variety of measures to support the everyday activities of its customers. Our review of program performance involves: (1) reviewing cost-effectiveness trends; and (2) reviewing Evans Exhibit 6, which provides specific information on each program's marketing strategy, potential areas of concern, and an overall qualitative analysis.

The Public Staff also uses its involvement in the Company's bi-monthly EE collaborative meetings to determine how a program is performing. During these meetings, the Collaborative discusses program performance (participation, customer engagement, and potential barriers to entry and continuation of the program), recently completed EM&V and market potential study activities, and potential new program offerings.

Relying on all of the resources mentioned above, the Public Staff believes that the historical performance of the Company's programs is reasonable. However, I have a number of concerns with the portfolio that I wish to bring to the Commission's attention for consideration in future rider proceedings.

<u>Public Staff's Concerns</u>

**Q. PLEASE DISCUSS THE PUBLIC STAFF'S CONCERNS REGARDING THE PORTFOLIO.**

A. I have the following areas of concern regarding DEP's DSM/EE portfolio:

a. Changes to the Company's Referral Channel for its Residential Smart Saver EE program to incorporate referrals to services unrelated to DSM/EE; and

b. The recovery of DSDR-related costs in the Company's DSM/EE rider.

Residential Smart Saver EE Program – Referral Channel

**Q. PLEASE DISCUSS THE SMART SAVER "FINDITDUKE" PLATFORM.**

A. As noted in my testimony in Sub 1252, in the last few years, the Company transitioned its referral channel for the Residential Smart Saver program into a broader channel providing a gamut of services (EE-related and non EE-related) for customers.

During the discovery process, the Public Staff learned that the FindItDuke channel is available to both customers and non-customers. Anyone needing a contractor for one of the "FindItDuke" listed services may contact Duke Energy for recommendations related to residential and non-residential projects. The contractors have paid a fee to Duke Energy to participate in the program. All of these revenues flow into the Residential Smart Saver Program.

To begin the process, Duke Energy first refers a contractor to the customer/non-customer. Several of the services provided through this channel are not related to EE, such as building electrical services, solar installation, and tree removal services. The contractor will assess the problem that the customer is experiencing, then perform the necessary work, either EE or non-EE, to resolve the issue or complete the request.

Additionally, the Public Staff recently learned in the public stakeholder group meeting for the Electric Transportation Pilot that the Company intends to utilize the FindItDuke initiative to provide referrals to customers for installations of electric vehicle charging stations.

The Public Staff has concerns about how the FindItDuke channel allows all the benefits to flow to the Residential Smart Saver program, a <u>residential EE program for DEP customers</u>, when the work done is not always related to an actual EE installation, a residential customer, or even a customer of Duke Energy. While the Public Staff appreciates DEP's efforts to improve the cost-effectiveness of the Residential Smart Saver Program by having the revenues from the participating contractors flow to the program, it appears that some of these revenues should be booked into other non-EE accounts.

**Q. DOES THE PUBLIC STAFF HAVE ANY RECOMMENDATIONS REGARDING THE SMART SAVER FINDITDUKE PLATFORM?**

A. The Public Staff believes that the Company should work to refine its referral channel accounting to only allow referral dollars specifically related to Residential EE work to be included in the referral channel for the Residential Smart Saver program, and book other revenues appropriately. Public Staff witness Maness discusses other accounting issues involving the FindItDuke platform.

Since the filing of the Company's application in this proceeding, the Public Staff and DEP have reached an agreement regarding the FindItDuke Program. The Public Staff and DEP have agreed to work to resolve the Public Staff's concerns with the FindItDuke program in the coming months and report on these efforts in their testimony filed in the 2022 DSM/EE Rider proceeding. Thus, for the purposes of this proceeding, the Public Staff and DEP have agreed that DEP should not be required to make any changes to its accounting related to FindItDuke costs or revenues at this time. This is subject to the caveat that the Public Staff is still in the process of reviewing data responses received from the Company regarding FindItDuke costs, and that once this review is complete, the Public Staff will file with the Commission any findings related to the program not already set forth in testimony.

Recovery of DSDR Costs

**Q. PLEASE DISCUSS YOUR CONCERNS REGARDING THE RECOVERY OF DSDR-RELATED COSTS**

A. In DEP's most recent rate case, the Commission ordered that "in its next general rate case DEP shall file a proposal for moving all DSDR and CVR costs into base rates."[3] The Commission explained that:

> [w]hile the CVR conversion costs are included in the deferral requested in this rate case, DEP apparently plans to recover other DSDR-related GIP costs in the Company's DSM/EE rider. The Commission finds this bifurcated approach to cost recovery for CVR/DSDR to be potentially problematic. In addition, the Commission notes that fuel savings from CVR will flow to all customers via the fuel rider (as DSDR fuel savings do currently), while the bulk of costs for the legacy DSDR system are being recovered via DEP's DSM/EE rider. Pursuant to N.C.G.S. § 62-133.9(f), industrial customers can avoid DSM/EE rider charges and hence would receive the additional fuel savings benefits of the CVR conversion without paying their share of a major portion of the related system costs. Due to this misalignment of costs and benefits the Commission will require DEP to file a proposal to move all DSDR and CVR costs into base rates when the Company files its next general rate case.[4]

The Public Staff agrees with the Commission that the Company's DSDR-related costs belong in base rates, and looks forward to reviewing the Company's proposal for implementing this change in its next general rate case.

## Avoided Cost

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[3] April 16, 2021 Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice, Docket No. E-2, Sub 1219, at 202.

[4] *Id.* at 142.

**Q. HAS THE COMPANY PROPOSED A MODIFICATION TO THE WAY AVOIDED COST BENEFITS ARE VALUED?**

A. Yes, the Company has proposed to include in future proceedings a Reserve Margin Adjustment Factor (RMAF) as an adder in its calculation for avoided capacity rates that are applied to EE measures that contribute system demand savings.

**Q. PLEASE DESCRIBE THE RMAF ADJUSTMENT.**

A. The RMAF adjustment is an adder applied to the avoided capacity benefits associated with the demand reductions of EE measures on the system. No RMAF adjustment is made to the avoided capacity benefits generated from DSM programs as they are treated as resources for planning purposes. The RMAF adjustment attempts to align how the reserve margin is impacted by the inclusion of EE on the system. Given that EE measures are treated in the Integrated Resource Plan (IRP) as a reduction to the load forecast, it lowers the need to build capacity to, among other things, meet the reserve margin.

The RMAF percentage is applied to the capacity benefits of the EE programs much in the same manner as the Performance Adjustment Factor (PAF) is applied to the avoided capacity benefits provided by Qualifying Facilities (QFs) that are compensated under a standard offer PURPA[5] contract. The RMAF attempts to treat the impacts of EE programs the same as the reserve margin does for the capacity resources identified in the IRP (i.e., 17%).

To take into consideration the PAF, the Company has proposed removing the impacts associated with the PAF from the 17% target, resulting in an RMAF percentage of 11.429%.

**Q. HAS THE COMPANY INCLUDED AN RMAF ADJUSTMENT IN PRIOR VINTAGES?**

A. Yes. An RMAF was included for the first time in Rider 12 in Docket No. E-2, Sub 1252 (Sub 1252). Prior to Vintage Year 2021, an RMAF has not been included in the avoided capacity rates calculated from the applicable Avoided Cost Proceeding, as determined from the Mechanism. However, a PAF has been recognized in both the Avoided Cost proceedings and in the DSM/EE application of avoided cost.

**Q. DID THE COMMISSION RULE ON THIS MATTER IN SUB 1252?**

A. Yes. The Commission, in its December 17, 2020 Order Approving DSM/EE Rider, Subject to Filing of Final Billing Factors and Proposed Customer Notice issued in Sub 1252 (Sub 1252 Order),

[5] Public Utility Regulatory Policies Act (PURPA), Pub. L. 95–617, 92 Stat. 3117, enacted November 9, 1978.

stated that it agreed with Public Staff witness J. Robert Hinton that there was a theoretical basis for such an adjustment, and continued on to say that:

> The Commission notes that EE is treated as a load resource in the Company's IRP and agrees that with every kW of load reduction that comes from EE, the amount of load serving capacity for which the Company must plan is reduced by more than one kW. However, exactly how much the reserve margin adjustment should be is not supported by substantial evidence in this docket. The Commission concludes that, for purposes of calculating the avoided capacity cost benefits for DSM/EE programs, deviation from the approved methodology for calculating the avoided capacity costs that form the basis for rates paid to QFs is appropriate and that this matter should be studied by the Collaborative.

**Q. DO YOU AGREE WITH THE COMPANY'S PROPOSAL OF THE RMAF ADJUSTMENT?**

A. Yes, for purposes of this proceeding, as currently proposed, the Public Staff accepts the inclusion of an RMAF adjustment.

However, the Public Staff opposes the Company making changes to the methodology for calculating inputs to the Mechanism or for calculating the Mechanism without first bringing the changes to the attention of the other parties for review and to the Commission for approval. The Company should explain in direct testimony in each rider proceeding the rationale for, and the effect of, any changes it has made, or wishes to make, in its methodology or calculations.

**Q. WHAT IS THE PUBLIC STAFF'S RECOMMENDATION?**

A. The Public Staff believes that the RMAF adjustment should be included in the calculation of avoided capacity benefits of EE measures for future vintages. In calculating the RMAF adjustment, the currently approved PAF should be removed from the recognized IRP reserve margin, as DEP has proposed in this proceeding.

In addition, the Company should collaborate with the Public Staff to codify this language in its cost recovery mechanism in an expeditious manner in order to reflect this process change.

<u>EM&V</u>

**Q. HAVE YOU REVIEWED THE EM&V REPORTS FILED BY DEP?**

A. Yes. The Public Staff contracted the services of GDS Associates, Inc. (GDS) to assist with review of EM&V. With GDS's assistance, I have reviewed the EM&V reports filed in this proceeding as Evans Exhibits A through D, as well as Evans Supplemental Exhibit E.

I also reviewed previous Commission orders to determine if DEP complied with provisions regarding EM&V contained in those orders. My review leads me to conclude that the Company is complying with the various Commission orders regarding EM&V of their DSM/EE portfolio.

**Q. DO YOU HAVE ANY RECOMMENDATIONS REGARDING THE EM&V REPORTS YOU REVIEWED?**

A. I have recommendations regarding the EM&V reports for the Save Energy and Water Kit (SEWK) Program (Evans Exhibit A) and Non-Residential Smart Saver Prescriptive Program (Evans Exhibit C).

**Q. PLEASE EXPLAIN YOUR RECOMMENDATION FOR THE SEWK PROGRAM.**

A. The savings and impacts of the SEWK program were evaluated by Nexant (Evans Exhibit A) for the period spanning September 2018 to August 2019. The Public Staff's recommendation in the recent DEP proceeding (Sub 1252) noted that a continued review was needed to investigate the discrepancies between the billing and engineering analyses.

**Q. WHAT ARE YOUR FINDINGS FROM THE CONTINUED INVESTIGATION?**

A. The results of the continued investigation have not led to a definitive answer as to why the billing and engineering analyses for this program are so different. Thus, the Public Staff has advocated, and will continue to advocate, for the appropriate application of billing versus engineering analyses when it comes to determining impacts. However, for purposes of this proceeding, the Public Staff recommends that the SEWK program report not be delayed, and for it to be accepted, with the condition that further reports presented by Duke Energy that have discrepancies between the billing and engineering analyses provide additional information regarding why a particular analysis was chosen for purposes of that report.

**Q. PLEASE EXPLAIN YOUR RECOMMENDATION FOR THE NON-RESIDENTIAL SMART SAVER PRESCRIPTIVE PROGRAM.**

A. The savings and impacts of the Non-Residential Smart Saver Prescriptive program were evaluated by Opinion Dynamics (Evans Exhibit C) for the period spanning March 1, 2017, to December 31, 2018. Our review found that the data recording process for this evaluation could be optimized, specifically for lighting-related measures since these measures provide a bulk of the total savings associated with this program. During discovery, the Company provided information that revealed that while lighting impacts were being accurately accounted for, measure descriptions provided a range of wattages. This makes it challenging to review the data associated with this program. The Public Staff's investigation indicates that the impacts of these measures were accounted for appropriately and that this report should be accepted; however, the Company and its evaluator should work to refine how the Company records its measure-level impacts for this program.

**Q. HAVE YOU CONFIRMED THAT THE COMPANY'S CALCULATIONS INCORPORATE THE VERIFIED SAVINGS OF THE VARIOUS EM&V REPORTS?**

A. Yes. As in previous cost recovery proceedings, I was able, through sampling, to verify that the changes to program impacts and participation were appropriately incorporated into the rider calculations for each DSM/EE program, as well as the actual participation and impacts calculated with EM&V data. I reviewed: (1) workpapers provided in response to data requests; (2) a sampling of the EE programs; and (3) Evans Exhibit 1, which incorporates data from various EM&V studies. I also met with DEP personnel to review the calculations, EM&V, DSMore, and other data related to the program/measure participation and impacts. Based on my ongoing review of this data, I believe DEP has appropriately incorporated the findings from EM&V studies and annual participation into its rider calculations consistent with Commission orders and the 2020 Mechanism. I will continue to review this information and, if necessary, file further information with the Commission should my review reveal any relevant issues that would cause me to alter my recommendations or conclusions.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes.

BY MS. LUHR:

Q Mr. Williamson, would you please give your summary.

A Yes. My testimony addresses a number of topics, including a review of the performance and cost-effectiveness of Duke Energy Progress' portfolio DSM and EE programs, potential concerns with the portfolio going forward, and a review of the Company's EM&V reports filed in this proceeding.

I reviewed Duke Energy Progress' portfolio of approved DSM and EE programs. Each of these approved programs is eligible for cost recovery pursuant to the Commission rules and the cost recovery mechanism approved in Docket No. E-2. Sub 931, as revised in 2017 DSM/EE rider proceeding, Docket No. E-2, Sub 1145, and further revised on October 20, 2020.

My testimony highlights the metrics used to evaluate cost-effectiveness in the annual rider proceedings. I review cost-effectiveness trends to develop an expectation of each program's performance, costs, and measure-life benefits in the upcoming rate period, as well as its ongoing cost-effectiveness.

I rely on these trends, as illustrated in my exhibits, to develop my recommendations concerning whether a program should be continued, modified, or terminated.

Several factors such as changes in participation, standards, or avoided costs also impact cost-effectiveness.

My testimony also provides a number of recommendations to the Commission. First, I recommend that the Commission accept the method proposed by the Company for calculating the Reserve Margin Adjustment Factor and its use in the calculation of avoided capacity benefits for EE measures for future Vintages.

Second, I recommend that the Company work with the Public Staff to draft language to incorporate the use of the Reserve Margin Adjustment Factor in its cost recovery mechanism.

Last, with regard to the Evaluation, Measurement, and Verification reports filed by the Company in previous DSM/EE rider proceedings, I believe the Company has complied with the Public Staff's earlier recommendations concerning

EM&V as ordered by the Commission.

The Public Staff generally agrees with the findings of the EM&V reports filed in this proceeding and Commission EM&V reports filed as Evans Exhibits A through D and Evans Supplemental Exhibit E should be considered complete for purposes of this proceeding.

In addition to these recommendations, I also noted two concerns with regard to DEP's DSM/EE portfolio.

Those are changes to the Company's referral channel for its Residential Smart Saver EE Program and the recovery DSDR- related costs in the Company's DSM/EE rider. This concludes my summary.

MS. LUHR: The witness is available for cross-examination.

COMMISSIONER BROWN-BLAND: Is there cross-examination for this witness, starting with the Company?

MS. FENTRESS: No cross. Thank you.

COMMISSIONER BROWN-BLAND: The Joint Intervenors?

MR. MOORE: No questions. Thank you.

COMMISSIONER BROWN-BLAND: CIGFUR?

MS. CRESS: No questions. Thank you.

COMMISSIONER BROWN-BLAND: CUCA?

MR. SCHAUER: No questions. Thank you.

COMMISSIONER BROWN-BLAND: Are there questions from the Commission?

(No response)

COMMISSIONER BROWN-BLAND: I don't think the Commissioners want Mr. Williamson to get off so lightly. I just have one question for you, Mr. Williamson.

EXAMINATION BY COMMISSIONER BROWN-BLAND:

Q Witness Evans on page 10 of his direct, he indicated there that the PAF, Performance Adjustment Factor is intended to represent an estimated equivalent forced outage rate. Does the Public Staff now agree with that characterization?

MR. MOORE: Could you repeat where it was in his direct testimony again?

COMMISSIONER BROWN-BLAND: It is page 10, and I think it's lines 12 to 13.

MR. MOORE: I'm just trying to get it pulled up here.

COMMISSIONER BROWN-BLAND: If you know or have an opinion.

MR. MOORE: I'm looking over it now. Just how it's written, I believe that is a correct representation.

COMMISSIONER BROWN-BLAND: Are there -- any other Commissioner have a question?

(No response)

COMMISSIONER BROWN-BLAND: Seeing none, are there questions on Commission's questions?

(No response)

COMMISSIONER BROWN-BLAND: I'm hearing no one come forward, so Ms. Luhr.

MS. LUHR: At this time, I would request that Mr. Williamson's Appendix A and Exhibits 1 and 2 be entered into evidence.

COMMISSIONER BROWN-BLAND: Without objection, that motion is allowed.

(WHEREUPON, Williamson's Appendix A and Exhibits 1 & 2 are admitted into evidence.)

MS. LUHR: And now is the appropriate time, I would also request that the testimony and appendices of Public Staff witness Maness, which were prefiled on

September 9th, 2021, be moved into the record and entered into evidence as if given orally from the stand.

COMMISSIONER BROWN-BLAND: I'm going to excuse Mr. Williamson from the stand. And that motion made by Ms. Luhr to receive the testimony of witness Maness will be allowed.

And his testimony is received as if given orally from the witness stand, and his appendices are received and identified as they were marked when prefiled.

(WHEREUPON, Maness Appendices A & B are marked for identification as prefiled and received into evidence.)

(WHEREUPON, the prefiled direct testimony of MICHAEL C. MANESS is copied into the record as if given orally from the stand.)

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 1273

| | | |
|---|---|---|
| In the Matter of | | |
| Application of Duke Energy Progress, | ) | TESTIMONY OF |
| LLC, for Approval of Demand-Side | ) | MICHAEL C. MANESS |
| Management and Energy Efficiency | ) | PUBLIC STAFF – NORTH |
| Cost Recovery Rider Pursuant to | ) | CAROLINA UTILITIES |
| N.C.G.S. § 62-133.9 and Commission | ) | COMMISSION |
| Rule R8-69 | ) | |

**BEFORE THE NORTH CAROLINA UTILITIES COMMISSION**

**DOCKET NO. E-2, SUB 1273**

**Testimony of Michael C. Maness**

**On Behalf of the Public Staff**

**North Carolina Utilities Commission**

**September 9, 2021**

**Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND PRESENT POSITION.**

A. My name is Michael C. Maness. My business address is 430 North Salisbury Street, Dobbs Building, Raleigh, North Carolina. I am the Director of the Accounting Division of the Public Staff – North Carolina Utilities Commission (Public Staff).

**Q. BRIEFLY STATE YOUR QUALIFICATIONS AND DUTIES.**

A. A summary of my qualifications and duties is set forth in Appendix B of this testimony.

**Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to present my recommendations regarding the Demand-Side Management (DSM) and Energy

Efficiency (EE) cost and incentive recovery rider (DSM/EE Rider),[1] proposed by Duke Energy Progress, LLC (DEP or the Company), in its Application filed in this docket on June 15, 2021 (Application). The DSM/EE Rider is authorized by N.C. Gen. Stat. § 62-133.9 and implemented pursuant to Commission Rule R8-69.

**Q. HOW IS YOUR TESTIMONY ORGANIZED?**

A. My testimony begins with a review of the regulatory framework for DSM/EE cost recovery by electric utilities and the historical background of DEP's Application in this docket. I then discuss the Company's proposed billing rates and other aspects of its filing. Following a summary of my investigation, I present my conclusions and recommendations regarding the proposed billing rates and the overall DSM/EE Rider.

## <u>THE PROCESS FOR SETTING DEP'S DSM/EE REVENUE REQUIREMENTS</u>

**Q. PLEASE DESCRIBE THE BASIS FOR THE COMPANY'S FILING.**

A. N.C.G.S. § 62-133.9(d) allows a utility to petition the Commission for approval of an annual rider to recover (1) the reasonable and prudent costs of new DSM and EE measures; and (2) other incentives to the utility for adopting and implementing new DSM and EE measures.

[1] The DSM/EE Rider is comprised of various class-based DSM, EE, DSM Experience Modification Factor (DSM EMF), and Energy Efficiency Experience Modification Factor (EE EMF) billing rates.

However, N.C.G.S. § 62-133.9(f) allows industrial and certain large commercial customers to opt out of participating in the power supplier's DSM/EE programs or paying the DSM/EE rider, if each such customer notifies its electric power supplier that it has implemented or will implement, at its own expense, alternative DSM and EE measures. Commission Rule R8-69, which was adopted by the Commission pursuant to N.C.G.S. § 62-133.9(h), sets forth the general parameters and procedures governing approval of the annual rider, including, but not limited to: (1) provisions for both (a) a DSM/EE rider to recover the estimated costs and utility incentives applicable to the "rate period" in which that DSM/EE rider will be in effect; and (b) a DSM/EE experience modification factor (EMF) rider to recover the difference between the DSM/EE rider in effect for a given test period (plus a possible extension) and the actual recoverable amounts incurred during that test period; and (2) provisions for interest or return on amounts deferred and on refunds to customers.

In this proceeding, DEP has calculated its proposed DSM/EE Rider (incorporating both prospective and EMF DSM and EE billing rates) using, for vintage years prior to 2022, the Cost Recovery and Incentive Mechanism for Demand-Side Management and Energy Efficiency Programs approved by the Commission in Docket No. E-2, Sub 931 (Sub 931), on January 20, 2015, in its *Order Approving*

*Revised Cost Recovery and Incentive Mechanism and Granting Waivers* (2015 Sub 931 Order), as subsequently revised by the Commission in its August 23, 2017 *Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice* (Sub 1145 Order), issued in the Company's 2017 DSM/EE rider proceeding in Docket No. E-2, Sub 1145 (Sub 1145).[2] This revised mechanism is referred to herein as the 2017 Mechanism. However, on October 20, 2020, also in Sub 931, the Commission issued its *Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms* (2020 Sub 931 Order), approving a revised Cost Recovery and Incentive Mechanism of Duke Energy Progress, LLC, for Demand-Side Management and Energy Efficiency Programs, to be effective January 1, 2022 (2020 Mechanism).[3] Therefore, the billing rates related to estimated Vintage Year 2022 costs and utility incentives have been calculated in this proceeding by use of the 2020 Mechanism.

[2] Certain billing factor components consisting of costs incurred or incentives earned prior to January 1, 2016, but being carried forward to or amortized as part of the billing factors proposed in this proceeding, were determined pursuant to the Cost Recovery and Incentive Mechanism for Demand-Side Management and Energy Efficiency Programs (Initial Mechanism) approved by the Commission on June 15, 2009, in its *Order Approving Agreement and Stipulation of Partial Settlement, Subject to Certain Commission-Required Modifications*, in Docket No. E-2, Sub 931, as modified by the Commission's November 25, 2009, *Order Granting Motions for Reconsideration in Part*, in the same docket.

[3] In the same order, which was also issued in Docket No. E-7, Sub 1032, the Commission also approved a revised DSM/EE Cost Recovery and Incentive Mechanism for Duke Energy Carolinas, LLC (DEC).

In the following paragraphs, I will describe the essential characteristics of the 2017 and 2020 Mechanisms; however, each Mechanism includes and is subject to many additional and more detailed criteria than are set forth in this testimony.

**Q. PLEASE DESCRIBE THE DEVELOPMENT OF THE 2017 AND 2020 MECHANISMS AND THEIR MAJOR COMPONENTS.**

A. In the 2015 Sub 931 Order, the Commission approved a revised mechanism agreed to by DEP, the Public Staff, and certain other intervenors,[4] and filed by DEP on October 29, 2014. However, as the result of discussions that took place during the Sub 1145 proceeding, the Company and the Public Staff recommended certain changes to Paragraphs 18, 22, and 70 of the mechanism, and the addition of new Paragraphs 22A through 22D and 70A. These revisions were set forth in Maness Exhibit II, filed with my affidavit in Sub 1145, and were approved as set forth therein by the Commission in the Sub 1145 Order.

The overall purpose of the 2017 Mechanism was to: (1) allow DEP to recover all reasonable and prudent costs incurred for adopting and implementing new DSM and new EE measures; (2) establish the terms, conditions, and methodology for the recovery of certain utility

[4] The parties agreeing to the revised mechanism were DEP, the Natural Resources Defense Council, the Southern Alliance for Clean Energy, and the Public Staff.

incentives – Net Lost Revenues (NLR) and a Portfolio Performance Incentive (PPI) - to reward DEP for adopting and implementing DSM and EE measures and programs; (3) provide for an additional incentive to further encourage kilowatt-hour (kWh) savings achievements; and (4) establish certain requirements and guidelines to guide requests by DEP for approval, monitoring, and management of DSM and EE programs. The 2017 Mechanism included many provisions that indirectly influenced the ratemaking process for DSM and EE costs and incentives, including provisions that addressed program approval, management, and modification; evaluation, measurement, and verification (EM&V) of program results; operation of a Stakeholder Collaborative; procedural matters and the general structure of the DSM/EE billing rates; allocation methodologies; reporting requirements; and provisions for the term and future review of the Revised Mechanism itself, as well as provisions directly affecting the calculation of the DSM/EE and DSM/EE EMF riders. A summary of these provisions is set forth in Appendix A of this testimony.

The purpose of the 2020 Mechanism remains largely the same as the 2017 Mechanism. However, the 2020 Mechanism, as approved by the Commission, also includes the following new characteristics:

1. Addition of a Program Return Incentive (PRI) – The PRI is an incentive to encourage DEP to pursue savings from existing and new low-income DSM/EE programs, and to maintain and increase the cost effectiveness of these programs. For these types of programs, the PRI initially will be based on 10.6% of the net present value of the avoided costs savings achieved by those DSM and EE programs. The percentage ultimately used to determine the 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 over and above that initially estimated for the Vintage Year. At no time will the PRI percentage utilized fall below 2.65% or rise above 13.25%.

2. Reduction of PPI Percentage – Beginning with Vintage Year 2022, the PPI percentage is reduced from 11.75% to 10.60%.

3. Cap and Floor on PPI - The amount of pre-tax PPI allowed will not exceed or fall below the amount that produces a specified margin over the aggregate pre-tax program costs for the PPI-eligible programs. The maximum margin is set at 19.50% for Vintage Year 2022 and afterward, until completion of the next Mechanism review. Additionally, a minimum margin over aggregate pre-tax program costs for PPI-eligible programs will be established at 10% for Vintage Year 2022, 6% for Vintage Year

2023, and 2.50% for Vintage Year 2024 and afterward, until completion of the next Mechanism review.

4. Clarification of the Criteria for Bundling Measures within Programs – Measures bundled within a DSM/EE program must be consistent with and related to the measure technologies or delivery channels of the program, unless otherwise ordered by the Commission.

5. Use of the Utility Cost Test (UCT) – The test used to calculate the prospective cost-effectiveness of new and ongoing programs is changed from the Total Resource Cost (TRC) Test to the UCT.

6. Review of Avoided Transmission and Distribution (T&D) Costs – The Public Staff and DEP will review avoided T&D costs no later than December 31, 2021, and make recommendations for any adjustment in the rider proceedings thereafter. Avoided T&D costs will be reviewed at least every three years and will be updated if they change by at least 20%.

7. Additional Incentive and Penalty - If the Company achieves annual energy savings of 1.0% of the prior year's system retail electricity sales in any year during the four-year period of 2022-2025, it will receive an additional incentive of $500,000 for that year. During that same period, if the Company fails to achieve annual energy savings of 0.5% of retail sales, net of sales

associated with customers opting out of the Company's EE programs, it will reduce its EE revenue requirement by $500,000.

8. Non-Energy Benefits - The definition of the TRC Test is revised to provide that non-energy benefits, as approved by the Commission, may be considered in the determination of TRC results.

9. Amortization of operations and maintenance (O&M) expenses – For vintage years prior to 2021, DEP amortized DSM/EE O&M expenses for recovery over various periods extending from one to ten years. Under the 2020 Mechanism, beginning with Vintage Year 2022, the amortization period for O&M expenses that have previously been greater than three years may be reduced to three years, although previous years' expenses will continue to use their previously allowed amortization periods.[5] In the next Mechanism review, the parties shall consider whether or not the minimum three-year amortization period should be further reduced.

10. PPI Recovery - Under the 2017 Mechanism and previous DSM/EE mechanisms, DEP has converted the PPI earned for each program in each vintage year into a stream of levelized

[5] O&M expenses incurred in Vintage Year 2021 will be amortized utilizing the same amortization periods as utilized for Vintage Year 2020 costs for the same Program, unless otherwise approved by the Commission.

annual payments with an equivalent present value, to be recovered over no more than ten years. Beginning with Vintage Year 2022, the PPI earned in any vintage year will be levelized over the same period as O&M expenses for that same vintage year are amortized, although levelized annual payments from prior vintages will continue to be recovered as previously set.

In addition to the above, the 2020 Sub 1032 Order requires, consistent with the recommendation of the parties to the 2020 Stipulation, that "DEC and DEP shall work with the DSM/EE Collaborative to develop a scope for a one-time study on the market penetration of EE programs with low and moderate income customers to be performed by qualified independent third-party EM&V providers. . . . [U]pon Commission approval for recovery of study costs, they shall have the study completed prior to the cost recovery Mechanism modifications approved herein taking effect in 2022."[6]

The entire text of the 2020 Mechanism is attached to the 2020 Sub 931 Order as Attachment B.[7]

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[6] Additional details regarding the performance of the study are included in the body of the 2020 Sub 931 Order.

[7] The revisions to the Mechanism recommended by the Public Staff were also supported by DEC, DEP, the North Carolina Sustainable Energy Association, the Southern Alliance for Clean Energy, the South Carolina Coastal Conservation League, the Natural Resources Defense Council, the Sierra Club, and the North Carolina Attorney General's Office.

## THE COMPANY'S PROPOSED BILLING RATES

**Q. PLEASE DESCRIBE THE BILLING FACTORS, VINTAGE YEARS, RATE PERIOD, AND TEST PERIOD BEING CONSIDERED IN THIS PROCEEDING.**

A. In its Application in this proceeding, DEP requested approval of prospective and EMF DSM and EE billing rates that would result in annual North Carolina retail revenue of approximately $190.0 million [including a revenue adder for the North Carolina Regulatory Fee (regulatory fee)]. DEP's request would be an increase of approximately $8.1 million from the annual revenues that would be produced by the rates currently in effect. These proposed billing factors are set forth on DEP witness Listebarger's Exhibit 1. The factors (rates), as applicable to each class, are proposed by the Company to be charged to all participating North Carolina retail customers [i.e., those who have not opted out pursuant to N.C.G.S. § 62-133.9(f)] served during the rate period.

The increase in the monthly bill of a Residential customer using 1,000 kilowatt-hours of energy resulting from this revenue requirement decrease would be $0.67. The change in a Non-Residential customer's bill would depend on the particular Vintage Years of DSM and/or EE rates for which the customer is opted out or opted in.

The rate period for this proceeding is the twelve-month period from January 1, 2022, through December 31, 2022. This is the period over which the prospective DSM and EE billing rates and the DSM and EE EMF billing rates determined in this proceeding will be charged. It is also the period for which the estimated revenue requirements (program costs, NLR, and PPI) to be recovered through the prospective DSM/EE rates are determined.

The test period applicable to this proceeding is the twelve-month period ended December 31, 2020. This is the period for which the under- or overrecovery of DSM/EE revenue requirements as compared to actual DSM/EE rider revenues is measured for purposes of determining the DSM and EE EMF billing rates (although the Commission Rules do allow the true-up to be extended to cover additional months, subject to review and adjustment in next year's proceeding). Actual program costs considered for true-up in this proceeding are either costs actually incurred during the test period, or further true-ups and/or corrections related to previous test periods. For purposes of recovery, actual program costs may be amortized over periods ranging from one to ten years. A return is also calculated on program costs deferred during the test year and on over-recoveries of total revenue requirements after the date the rates change. NLR and PPI reflected in the EMF revenue requirements being set in this proceeding are associated with kWh and dollar savings achieved during Vintage Year 2020 (which is also the test year), as well as true-ups associated with prior vintage years. The PPI revenue requirement may also be amortized on a levelized basis over several years.

**Q. WHAT ARE SOME OF THE CHARACTERISTICS OF DEP'S PROPOSED DSM/EE BILLING FACTORS IN THIS SPECIFIC PROCEEDING?**

A. The prospective DSM and EE billing rates incorporate several cost recovery elements as estimated for the rate period, including amortizations of operations and maintenance and administrative and general (A&G) costs, capital costs of the Demand Side Distribution Response program (DSDR), carrying costs (return on deferred costs), NLR, and levelized PPI incentives. The test period true-up DSM and EE EMF billing rates contain test period actual amounts of the same types of costs and incentives as do the prospective rates. The DSM and EE EMF billing rates also include adjustments to the 2017, 2018, and 2019 NLR, and 2019 PPI, a reduction for the DSM/EE billing rate amounts billed during the test period, and interest on over-collections and under-collections.

NLR amounts included in the DSM and EE billing rates have also been affected by the Company's two most recently concluded general rate cases, Docket No. E-2, Subs 1142 and 1219. In the case of Sub 1142, the revenue requirement filed by the Company took into account DEP's total net revenue losses through December 31, 2016, and further residential losses through October 31, 2017. The effective date of the rates set in the case was March 16, 2018. Therefore, NLR being requested in this proceeding exclude, effective March 16, 2018, any net revenue losses due to DSM/EE measures installed or implemented on or prior to December 31, 2016, for all customers, and on or prior to October 31, 2017, for residential customers. These excluded losses include a portion of the test year 2020 lost sales first experienced in Vintage Year 2017.

In the case of Sub 1219, the revenue requirement filed by the Company took into account DEP's total net revenue losses through May 31, 2020. The effective date of the rates set in the case was September 1, 2020. Therefore, NLR being requested in this proceeding exclude, effective September 1, 2020, any net revenue losses due to DSM/EE measures installed or implemented on or prior to May 31, 2020. These excluded losses include a portion of the test period 2020 lost sales first experienced in Vintage Years 2017 through 2020, and also a portion of the estimated rate period 2022 lost sales first experienced in Vintage Years 2019 and 2020.

**Q. WILL THERE BE FUTURE TRUE-UPS OF THE DSM/EE REVENUE REQUIREMENTS?**

A. The finalization of the true-ups of NLR and PPI sometimes tends to lag behind the true-ups of program costs and A&G expenses subject to amortization. This feature of the true-up process is due to the fact that while cost amounts are typically known and determinable very soon after they are incurred, it can take several months to complete the applicable EM&V process and to refine and adjust the cost savings results for a given vintage year so that the final actual incentives payable to the utility can be determined. Therefore, while the cost amounts to be trued up as part of the test period DSM/EE EMF revenue requirement in a given annual proceeding typically correspond very closely to the actual costs incurred during the test period, the test period revenue requirement often contains incentives related to more than one vintage year. Additionally, certain components of the revenue requirements related to prior years will remain subject to prospective update adjustments and retrospective true-ups in the future, as participation and EM&V analyses are finalized, reviewed, and perhaps refined.

## INVESTIGATION AND CONCLUSIONS

**Q. PLEASE DESCRIBE YOUR INVESTIGATION OF DEP'S FILING.**

A. My investigation of DEP's filing in this proceeding focused on determining whether the proposed DSM/EE Rider (a) was calculated in accordance with the 2017 or 2020 Mechanism, as applicable, and

(b) otherwise adhered to sound ratemaking concepts and principles. The procedures I and other members of the Public Staff's Accounting Division acting under my supervision utilized included a review of the Company's filing, relevant prior Commission proceedings and orders, and workpapers and source documentation used by the Company to develop the proposed billing rates. Performing the investigation required the review of responses to written and verbal data requests, as well as discussions with Company personnel. As part of its investigation, the Accounting Division performed a review of the actual DSM/EE program costs incurred by DEP during the 12-month period ended December 31, 2020. To accomplish this, the Accounting Division selected and reviewed samples of source documentation for test year costs included by the Company for recovery through the DSM/EE Rider. Review of this sample, which is still underway as of the date of pre-filing of this testimony, is intended to test whether the actual costs included by the Company in the DSM and EE billing rates are either valid costs of approved DSM and EE programs or administrative costs supporting those programs.

My investigation, including the sampling of source documentation, concentrated primarily on costs and incentives related to the January through December 2020 test period, which will begin to be trued up through the DSM and EE EMF billing rates approved in this proceeding. The Public Staff also performed a more general review of the prospective billing rates proposed to be charged for Vintage Year 2022, which are subject to true-up in future proceedings.

**Q. WHAT ARE YOUR FINDINGS AND CONCLUSIONS?**

A. With the exception of items specifically described later in this testimony, as well as subject to the outcome of the Public Staff's program cost review described above, I am of the opinion that the Company has calculated its proposed DSM, EE, DSM EMF, and EE EMF billing rates in a manner consistent with N.C.G.S. § 62-133.9, Commission Rule R8-69, the 2017 and 2020 Mechanisms (and the Commission Orders with which they are associated), and other relevant Commission Orders. However, this conclusion is subject to the caveat that the Public Staff is still in the process of reviewing certain data responses recently received from the Company, including documentation of costs selected for review in the Public Staff's sample; once this review is complete, the Public Staff will file with the Commission any findings not already set forth in testimony.

I would like to note the following regarding the Public Staff's investigation:

1. <u>Review of Vintage Year 2020 Program Costs</u> – The Public Staff's review of the selected sample items from the population of 2020 DSM/EE program costs has resulted in

one matter of concern, to date. This matter is further discussed below.

**Q. PLEASE EXPLAIN FURTHER THE CONCERNS YOU HAVE REGARDING THE PUBLIC STAFF'S REVIEW OF 2020 DSM/EE PROGRAM COSTS.**

A. As described in my testimony in DEC's 2021 DSM/EE Rider proceeding (Docket No. E-7, Sub 1249), and as is discussed in Public Staff witness Williamson's testimony in that proceeding and this proceeding, DEP operates a referral channel (entitled "FinditDuke" for marketing purposes). This referral channel enables DEP customers, as well as non-DEP customers located within or surrounding the Duke Energy service territory, to locate contractors who may be able to provide certain services. The contractors pay a fee to DEP for performing referrals, and this fee is used to offset program costs of the Company's Residential SmartSaver EE program. The referable services include those that are associated with measures under the Residential SmartSaver Program, but have been expanded since the referral channel began to include other Residential and non-Residential services, including electrical, residential solar, and tree services that are unrelated to DSM/EE. While some of these services could result in higher efficiency measures being installed, the remaining do not appear to be related to DEP's currently approved DSM/EE programs. Furthermore, it appears possible that some of the services that could be referred through FinditDuke are services that are not regulated by the Commission. Thus, DEP may be operating a referral service that includes referrals for non-regulated services to be performed by third parties.

Mr. Williamson testifies in this proceeding that it appears that some of the revenues received through the FinditDuke program should be recorded to accounts not related to the Company's DSM/EE programs, in that the related services are not part of the Company's DSM/EE efforts, and that they may be related to services provided to non-customers of DEC. He recommends that the Company work to refine its accounting so that the only revenues that are credited as offsets against DSM/EE program cost accounts are those that are attributable to referrals that are actually related to DSM/EE measures that are installed as a result of the referral.

I believe that the principles elucidated by Mr. Williamson with regard to the revenues associated with FinditDuke are equally appropriate with regard to the <u>costs</u> of administering and operating the referral effort. Therefore, I recommend that the Company refine its referral channel accounting to also properly assign, apportion, or allocate costs to DSM/EE, and non-DSM/EE efforts, working in conjunction with third party vendor-managers where appropriate. While such assignment may require estimates and approximations of the appropriate assignments and allocations, the effort is highly likely to produce a better result than the current approach of simply assigning 100% of all the revenues and costs to the Residential SmartSaver Program. Otherwise, the current practice could result in distorted cost-effectiveness results for the program as well as over- or underpayments of PPI and PRI utility incentives to the Company.

Since the filing of the Company's application in this proceeding, the Public Staff and DEP have reached an agreement regarding the FindItDuke Program. The Public Staff and DEP have agreed to work to resolve the Public Staff's concerns with the FindItDuke program in the coming months and report on these efforts in their testimony filed in the 2022 DSM/EE Rider proceeding. Thus, for the purposes of this proceeding, the Public Staff and DEP have agreed that DEP should not be required to make any changes to its accounting related to FindItDuke costs or revenues at this time. This is subject to the caveat that the Public Staff is still in the process of reviewing data responses received from the Company regarding FindItDuke costs, and that once this review is complete, the Public Staff will file with the Commission any findings related to the program not already set forth in testimony.

From an accounting perspective, this review should take into account the sizable up-front investments in advertising and promotion spend, noted both in our program cost review for this proceeding as well as during the course of our review in Docket No. E-7, Sub 1249. In addition, we need to examine the allocation of marketing costs across utility jurisdictions.

**Q. WHAT OTHER IMPACTS DOES THE TESTIMONY OF PUBLIC STAFF WITNESS WILLIAMSON HAVE ON YOUR CONCLUSIONS REGARDING THE DSM/EE RIDERS IN THIS PROCEEDING?**

A. Mr. Williamson has also filed testimony in this proceeding discussing several other topics related to the Company's filing. None of the matters discussed by Mr. Williamson necessitate an adjustment in this particular proceeding to the Company's billing factor calculations, although some of them may affect the determination of the factors in future proceedings.

**Q. PLEASE SUMMARIZE YOUR CONCLUSIONS REGARDING THE COMPANY'S PROPOSED BILLING FACTORS.**

A. In summary, although we have general concerns regarding FinditDuke accounting that we believe should be followed up, the Public Staff has found no errors or other issues necessitating an adjustment to the Company's proposed billing factors, subject to completion of our program cost sample review.

## RECOMMENDATION

**Q. WHAT IS YOUR RECOMMENDATION IN THIS PROCEEDING?**

A. Based on the results of the Public Staff's investigation (subject to completion of its review of 2020 program costs), I recommend that the billing factors proposed by the Company, as set forth in Listebarger Exhibit 1, be approved by the Commission. These factors should be approved subject to any true-ups in future cost recovery proceedings consistent with the 2017 and 2020 Mechanisms and the Commission Orders with which they are associated, as well as other relevant orders of the Commission, including the Commission's final order in this proceeding. Most specifically, I recommend that the application of the 2020 Mechanism to the estimated costs and utility incentives associated with Vintage Year 2022 not be considered final until those costs and utility incentives are trued up in future rider proceedings.

In making this recommendation, the Public Staff notes that reviewing the calculation of the DSM/EE rider is a process that involves reviewing numerous assumptions, inputs, and calculations, and its recommendation with regard to this proposed rider is not intended to indicate that the Public Staff will not raise questions in future proceedings regarding the same or similar assumptions, inputs, and calculations.

**Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes, it does.

COMMISSIONER BROWN-BLAND: Anything further from the Public Staff?

MS. LUHR: No. Thank you.

COMMISSIONER BROWN-BLAND: Then we are now back to rebuttal.

MS. FENTRESS: Thank you, Madam Chair. I would recall Mr. Evans and also call Ms. Shafer to the stand.

COMMISSIONER BROWN-BLAND: Ms. Fentress, I think you and Mr. Evans need to --

MS. FENTRESS: Oh, yes. So sorry.

COMMISSIONER BROWN-BLAND: -- move around. I see Ms. Shafer. Mr. Evans, you've already affirmed, made affirmations.

ROBERT P. EVANS;

having been previously affirmed,

and

LYNDA SLEIGHER SHAFER,

having been duly affirmed,

testified as follows:

COMMISSIONER BROWN-BLAND: Ms. Fentress, they're your witnesses.

MS. FENTRESS: Thank you.

DIRECT-EXAMINATION BY MS. FENTRESS:

Q Mr. Evans, since you've already been introduced, I will start with you and then move to Ms. Shafer. Mr. Evans, did you cause to be prefiled in this case, on the September 16th, 2021, rebuttal testimony of 10 pages and one exhibit?

A Yes, I did.

Q Do you have any changes to your prefiled rebuttal testimony?

A. No, I do not.

Q And if I were to ask you the same questions as written in your rebuttal testimony today from the stand, would your answers be the same?

A Yes, they would be.

MS. FENTRESS: Thank you. I'll move to Ms. Shafer.

Q Ms. Shafer, could you please state your full name and business address, for the record?

A My name is Lynda Sleigher Shafer. I work at 400 South Tryon Street, Charlotte, North Carolina 28202.

Q And Ms. Shafer, what is your position at Duke Energy?

A I'm a Senior Strategy and Collaboration Manager for the Carolinas in the Portfolio Strategy and Support Group.

Q And Ms. Shafer, did you cause to be prefiled in this docket on September 16th, 2021 rebuttal testimony of 12 pages?

A Yes, I did.

Q Do you have any changes to your prefiled rebuttal testimony?

A. No, I do not.

Q And if I were to ask you the same question as written in your rebuttal testimony today from the stand, would answers be the same?

A Yes.

MS. FENTRESS: Madam Chair, I would ask that Mr. Evans and Ms. Shafer's prefiled rebuttal testimony and exhibit be entered into the record as if given orally from the stand.

COMMISSIONER BROWN-BLAND: Ms. Fentress, that motion will be allowed, and the testimony of -- the rebuttal testimony of witnesses Evans and Shafer will be received into evidence as if given orally from the stand, and the exhibit of -- the rebuttal exhibit of witness Evans will be identified as it was marked when prefiled.

MS. FENTRESS: Thank you.

(WHEREUPON, Evans Rebuttal Exhibit 1 is marked for identification as prefiled.)

(WHEREUPON, the prefiled rebuttal testimony of ROBERT P. EVANS and the prefiled rebuttal testimony of LYNDA SLEIGHER SHAFER is copied into the record as if given orally from the stand.)

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1273

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

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

A. My name is Robert P. Evans, and my business address is 410 S. Wilmington Street, Raleigh, North Carolina. I am employed by Duke Energy Corporation as Senior Manager-Strategy and Collaboration for the Carolinas in the Integrated Grid Strategy and Solutions group.

**Q. DID YOU PREVIOUSLY FILE DIRECT TESTIMONY IN SUPPORT OF DUKE ENERGY PROGRESS, LLC'S ("COMPANY") APPLICATION IN THIS DOCKET?**

A. Yes.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

A. The purpose of my rebuttal testimony is to respond to portions of the testimony of Forest Bradley-Wright, filed on behalf of the North Carolina Justice Center ("NCJC"), the North Carolina Housing Coalition, and the Southern Alliance for Clean Energy ("SACE") and to portions of the testimony of Michael C. Maness, filed on behalf of the Public Staff of the North Carolina Utilities Commission ("Public Staff").

**Q. WILL YOU DESCRIBE THE PORTIONS OF WITNESS BRADLEY-WRIGHT'S TESTIMONY TO WHICH YOU ARE RESPONDING?**

A. Yes. There are several portions of witness Bradley-Wright's testimony that cause concerns; specifically, those portions related to the one percent ("1%") savings target, the Company's low-income energy efficiency program budgets, the request for the quantification of carbon savings resulting from demand-side management and energy efficiency programs, and his remarks regarding the Market Potential Study.

**Q. PLEASE DESCRIBE YOUR CONCERNS RELATED TO THE PORTIONS OF WITNESS BRADLEY-WRIGHT'S TESTIMONY DISCUSSING THE ASPIRATIONAL GOAL OF SAVING 1% OF THE PRIOR YEAR'S RETAIL SALES FROM ENERGY EFFICIENCY AND DEMAND-SIDE MANAGEMENT PROGRAMS.**

A. The 1% target that witness Bradley-Wright refers to as the key feature of the Settlement Agreement among DEP, Duke Energy Carolinas, LLC ("DEC"), the Natural Resources Defense Council, SACE, the North Carolina Sustainable Energy Association, the North Carolina Attorney General's Office and the Public Staff is not an express requirement of the Settlement Agreement.[1] It is, instead, an aspirational goal. That being said, the source of the aspirational 1% goal was a 2011 Settlement Agreement between and among the Environmental Defense Fund, the South Carolina Coastal Conservation League and SACE, filed in the South Carolina Public Service Commission proceedings on the merger of Duke Energy Corporation and Progress Energy, Inc., as witness Bradley-Wright testified to in Docket No. E-2, Sub 1206.[2] That Settlement Agreement covered a multi-year period that ended in 2018.

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[1] Witness Bradley-Wright's testimony includes the South Carolina Coastal Conservation League and Sierra Club as parties to the Settlement Agreement, but under the Commission's October 20, 2020 *Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost-Recovery Mechanism*, issued in Docket Nos. E-2, Sub 931 and E-7, Sub 1032, SCCCL and Sierra Club were parties only to the Duke Energy Carolinas, LLC Settlement Agreement in Docket No. E-7, Sub 1032.

[2] *See* Docket No. E-2, Sub 1206, Tr. p. 186 (Witness Bradley-Wright responding to questions from counsel after the Commission's questions). The merger-related Settlement Agreement referred to was filed in Docket Nos. 2011-68-E and 2011-158-E on December 13, 2011.

The Company takes achieving this 1% savings aspiration goal very seriously and continues to work with stakeholders and within N.C. Gen. Stat. § 62-133.9, the Commission Rules, and the Mechanism toward developing cost-effective and marketable energy efficiency ("EE") and demand-side management ("DSM") programs that will result in energy savings for their customers. Under the Mechanism approved by the Commission, the Company is rewarded for achieving that goal. Achieving that aspirational goal for DEP, however, has been hindered by the number of opt out customers in the DEP North Carolina service territory, as compared to DEC's service territory. Additionally, a lack of clarity on how eligible non-residential customers electing to opt out of participating in the Company's EE/DSM portfolio of programs, as allowed under N. C. Gen. Stat. § 62-133.9(f), impacts the calculation of the energy savings that DEP has achieved.

**Q. PLEASE EXPLAIN HOW THE STATUTORY OPT OUT PROVISION IN NORTH CAROLINA GEN. STAT. § 62-133.9(f) IMPACTS WITNESS BRADLEY-WRIGHT'S ASSERTION THAT THE COMPANY HAS NOT MET THIS ASPIRATIONAL GOAL.**

A. Witness Bradley-Wright does not appear to make an "apples to apples" comparison. The percentage of savings as calculated by Bradley-Wright reflects the energy savings achieved through the Company's energy efficiency and demand-side management ("EE/DSM") programs compared to the total retail sales of the Company, including the sales to customers that have opted out of, and therefore are not eligible to save energy through the Company's

EE/DSM programs. In other words, there is a disconnect between the numerator and denominator used in witness Bradley-Wright's calculation of the percentage used to determine the Company's attainment.

**Q. WHY SHOULD OPT-OUT ASSOCIATED SALES BE REMOVED FROM TOTAL SALES TO CALCULATE THE PERCENTAGE SAVINGS?**

A. To reflect a true apples to apples comparison, the opt-out associated sales should also be removed in the calculation of the savings goal. DEP has a significant portion of its non-residential sales to industrial and commercial customers that have opted out of the Company's EE/DSM portfolio. These customers do not impact the level of recognized savings even though those customers utilize their own energy efficiency programs. The proper formula to use in determining savings that are actually subject to Company control is *(Savings from Company Programs)/((Total Sales) – (Opt-Out Sales))*. More simply put, calculating the energy savings percentage while including an energy sales number increased by sales to opt-out customers, does not accurately reflect the success of the EE programs reducing energy usage from the customer sales that can be impacted by the programs.

**Q. WHAT CONCERNS DO YOU HAVE WITH WITNESS BRADLEY-WRIGHT'S TESTIMONY RELATING TO THE COMPANY'S ENERGY EFFICIENCY PROGRAMS FOR LOW-INCOME CUSTOMERS?**

A. I have two concerns. The first is his recommendation that the Commission direct DEP to increase its low-income energy efficiency program budgets to at least match those of DEC on a per-residential customer basis. The second is his omission of pertinent information regarding the Durham Pilot Program.

**Q. WHAT CONCERNS DO YOU HAVE WITH WITNESS BRADLEY-WRIGHTS TESTIMONY RELATING TO ADJUSTING THE COMPANY'S BUDGET FOR LOW-INCOME PROGRAMS?**

A. Witness Bradley-Wright's budgetary recommendations appear to continue to be based on the misconception that increasing a projected budget for an energy efficiency program will automatically increase the participation in a EE/DSM program and thereby result in increased energy savings. The Company has tried to address this misconception multiple times and has explained that a program budget is not a *ceiling* on spending, but rather an attempt to accurately reflect the costs associated with projected participation in a program for the purposes of cost recovery from customers. Higher projected budgets result in higher projected costs to be recovered from customers through the EE/DSM rider. The past performance of the Company's EE/DSM portfolio has demonstrated many times that if additional program spending above a projected budget is necessary to meet customer participation, the Company's spending will exceed the budget. After Commission review and approval, the Company may then recover the overspend when the vintage year of that program is trued up. Low-income programs are no different. Rather than simply projecting an arbitrary and unsubstantiated increase to the budget, the Company is actively working with SACE and other stakeholders to develop pilot programs targeting low-income customers that will justify additional spending associated with projected participation.

**Q. PLEASE DESCRIBE THE DURHAM PILOT PROGRAM.**

A. The Durham Pilot Program was a limited weatherization assistance program for low-income customers. Notably the Durham Pilot Program's scope was only 206 homes. Participants also received supplemental Helping Home Funds to address health, safety, and incidental repair needs prior to efficiency improvements. The Company is proud of the Helping Home Fund's work and Duke Energy Carolinas, LLC's work on the Durham Pilot, but neither is an approved EE program under Commission Rule R8-68.

**Q. WHAT PERTINENT INFORMATION DOES WITNESS BRADLEY-WRIGHT'S TESTIMONY OMIT WHEN DESCRIBING THE DURHAM PILOT?**

A. Starting on line 20 of page 29 of his testimony, witness Bradley-Wright quotes from the Opinion Dynamics Evaluation, Measurement, and Verification report associated with the Durham Pilot (attached for the Commission's convenience hereto as Exhibit 1). He states the following:

> [A] program design similar to the Durham Pilot could be a good option for bringing weatherization services to customers in South Carolina and/or the DEP service territory.

To put this in context, on page 43 of the same report, Opinion Dynamics also indicated that "Finally, the funding approach of covering the full project cost without contributions by agencies might make this program design *difficult to implement on a larger scale*." (Emphasis added.) Opinion Dynamic's report further states on page 47 that "[s]ince this evaluation did not include a formal impact assessment, however, more rigorous impact analysis would be required to quantify the savings of the Durham Pilot."

**Q. DO YOU AGREE WITH WITNESS BRADLEY WRIGHT'S POSITION REGARDING THE QUANTIFICATION OF CARBON SAVINGS?**

A. No, I do not agree.

**Q. WHAT ARE YOUR CONCERNS WITH RESPECT TO THE QUANTIFICATION OF CARBON SAVINGS IN DEP'S EE/DSM PROCEEDINGS?**

A. Because there are no recognized financial impacts within the EE/DSM mechanism associated explicitly with carbon savings, such a quantification is outside the scope of DEP's filing for approval of its EE/DSM rider under Commission Rule R8-69 at this time. As such, the tracking and reporting on carbon savings in the Company's EE/DSM cost recovery filings is unnecessary in this proceeding and would likely result in added costs to customers to be recovered through the EE/DSM rider.

**Q. WHAT ARE YOUR CONCERNS WITH RESPECT TO WITNESS BRADLEY-WRIGHT'S REMARKS CONCERNING THE MARKET POTENTIAL STUDY ("MPS")?**

A. Witness Bradley-Wright indicated that the Company's reliance on the Total Resource Cost ("TRC") instead of the Utility Cost Test ("UCT") for its MPS substantially undercounted the economic savings potential. There are several flaws with witness Bradley-Wright's contention. First, the MPS was completed prior to the UCT replacing the TRC test as the screen for cost-effective EE/DSM programs. The UCT goes into effect as the screen in 2022. Second, although the MPS is used to inform program offerings, it is not a direct input into the energy savings in the Company's 2022 projection in this proceeding. Witness Bradley-Wright's concerns regarding the MPS and the impact of utilizing the TRC versus UCT for planning purposes is more appropriate in the Company's integrated resource planning proceedings, rather than in this annual rider proceeding under Commission Rule R8-69. Third, the Company addressed this concern in its Collaborative. As part of the specific Collaborative discussion addressing concerns around the MPS, the Company explained that Nexant, who developed the MPS, applied the TRC test to the Economic Potential Screen, but also included a sensitivity to calculate an Economic Potential using the UCT screen, which resulted in an increase to the Economic Potential. While applying UCT does increase economic potential, it was not appropriate to utilize in the determination of the achievable potential, which recognizes market barriers to participation. This decision was grounded in a firm understanding of the cost effectiveness screens and the nature of each of these tests. The UCT considers the economics from the utility's perspective, not from that of the customer. The TRC test recognizes the customer's out-of-pocket cost and, as such, the customer's economics associated with the adoption of energy efficiency measures. Therefore, the TRC test is a better vehicle from which to assess the achievable potential of energy efficiency measures in MPS.

**Q. HOW DO YOU RESPOND TO PUBLIC STAFF WITNESS MANESS'S RECOMMENDATION ON REFINING THE ACCOUNTING RELATED TO COSTS FOR THE FIND IT DUKE REFERRAL CHANNEL?**

A. Consistent with the Commission's September 10, 2021 *Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice*, issued in

Docket No. E-7, Sub 1249, which applied to Duke Energy Carolinas, LLC, Duke Energy Progress is also working to identify and quantify the applicable non-energy efficiency related referral costs and revenues in the Find it Duke referral channel, so that they may be removed from the Company's requested cost recovery in this proceeding. The Company will also review and, if appropriate, discuss the impact of the Commission's decision on the Find It Duke referral channel with the Public Staff prior to Duke Energy Carolinas, LLC's or the Company's next DSM/EE annual rider proceeding filing.

**Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

A. Yes.

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-2, SUB 1273

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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| In the Matter of<br>Application of Duke Energy Progress, LLC<br>for Approval of Demand-Side Management<br>and Energy Efficiency Cost Recovery Rider<br>Pursuant to N.C. Gen. Stat. § 62-133.9 and<br>Commission Rule R8-69 | )<br>)<br>)<br>)<br>)<br>) | **REBUTTAL TESTIMONY OF LYNDA SLEIGHER SHAFER FOR DUKE ENERGY PROGRESS, LLC** |

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

A. My name is Lynda Sleigher Shafer, and my business address is 400 S. Tryon Street, Charlotte, North Carolina. I am employed by Duke Energy Corporation as Senior Strategy and Collaboration Manager for the Carolinas in the Portfolio Strategy and Support group.

**Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND PROFESSIONAL EXPERIENCE.**

A. I have a Bachelor of Science degree from Bob Jones University and two Master's degrees from the University of South Carolina, a Master of Business Administration and of English. I began working with the Office of Regulatory Staff ("ORS") in South Carolina in 2009 as a Program Specialist in telecommunications and later as a Regulatory Analyst in the Electricity, Gas and Economics Department. While at ORS, I completed the National Association of Regulatory Utility Commissioners ("NARUC") Regulatory Studies program at Michigan State University and Eastern NARUC Utility Rate School. In 2016, I became a Financial Analyst for Santee Cooper where I was responsible for evaluating existing and proposed programs for cost effectiveness, coordinating collaboration among subject matter experts regarding renewables and demand-side management programs, and preparing the annual budget for energy efficiency operations. While at Santee Cooper, I completed the North Carolina State University McKimmon Center for Continuing Education Meter School.

In 2018, I began working in my current role at Duke Energy. I am the regulatory lead in South Carolina for Energy Efficiency and Demand-Side Management ("EE/DSM") programs and the facilitator of the EE/DSM Collaborative stakeholder group (hereinafter "Collaborative" or "stakeholders") for both Duke Energy Progress, LLC ("DEP" or the "Company") and Duke Energy Carolinas, LLC ("DEC", collectively, the "Companies" in North and South Carolina or "Duke Energy"). I also represent the Company as a member of the Board of Directors for the Southeast Energy Efficiency Alliance.

**Q. PLEASE DESCRIBE YOUR ROLE AS THE FACILITATOR OF THE STAKEHOLDER GROUP.**

A. I am the primary contact for stakeholders in North and South Carolina who have questions, concerns, or insights related to the Companies' EE/DSM programs. My responsibilities in that role include responding to stakeholders' questions or requests for information and connecting them with the appropriate subject matter experts at Duke Energy. Additionally, I organize the bimonthly Collaborative meetings and most of the working group calls between meetings. I also ensure the preparation and distribution of meeting materials and minutes.

**Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THIS COMMISSION OR OTHER REGULATORY BODIES?**

A. I have not appeared before this Commission prior to this docket. I have testified before the Public Service Commission of South Carolina ("PSCSC") in an ex parte hearing concerning EE/DSM program modifications in 2019. In my role as a regulator at ORS, I testified before the PSCSC in two general rate cases, three annual fuel adjustment cases and one distributed energy resource program application.

**Q. WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?**

A. The purpose of my rebuttal testimony is to respond to portions of the testimony of Forest Bradley-Wright filed on behalf of the North Carolina Justice Center ("NCJC"), the North Carolina Housing Coalition, and the Southern Alliance for Clean Energy ("SACE").

**Q. WILL YOU DESCRIBE THE PORTIONS OF WITNESS FOREST BRADLEY-WRIGHT'S TESTIMONY TO WHICH YOU ARE RESPONDING?**

A. I am addressing the portions of Witness Bradley-Wright's testimony that pertain to the Collaborative, particularly his assertion that the Company has not acted on program suggestions appropriately or communicated program savings projections in a way that would allow meaningful participation by members of the Collaborative.

**Q. WHAT IS THE ROLE OF THE CAROLINAS COLLABORATIVE?**

A. The Collaborative is a long-standing advisory group of interested stakeholders from across North and South Carolina. It comprises members from several advocacy groups, as well as regulators, academics, and members of trade organizations. For North Carolina purposes, the Public Staff of the North Carolina Utilities Commission ("Public Staff") participates. The Collaborative serves as a key source for input into the Company's EE/DSM portfolio and allows this diverse group of stakeholders to share potential new programs and programmatic enhancements offered by other utilities in different regions of the country. The Collaborative helps the Companies avoid blind spots in programming and marketing. In its mission statement, which was written as part of a cooperative effort in 2019, the Collaborative defined its role as "a forum for providing insight and input concerning topics related to energy efficiency and demand-side management including program design and development; measurement and evaluation; regulatory and market conditions; specific issues or topics as requested by the NC Utilities Commission and the Public Service Commission of SC; and emerging opportunities to achieve cost-effective energy savings."

**Q. HOW DOES DEP SUPPORT THE COLLABORATIVE SO THAT IT CAN FULFILL ITS ROLE?**

A. The Company has established a process in which members determine the agenda, request subject matter experts to present on a wide range of topics, and receive meeting materials in advance to ensure adequate time for review. The Company also hosts working groups or initiates separate conference calls to discuss items that cannot be fully explored during bimonthly meetings. Twice a year, I present each of the residential and nonresidential programs one-by-one and lead a discussion with Collaborative members and the Companies' program managers. The analytics team presents evaluation, measurement, and verification studies ("EM&V") twice a year as well. The Companies' subject matter experts also carve out opportunities to solicit Collaborative feedback at various stages of program design, implementation, and review.

**Q. DO YOU AGREE WITH WITNESS BRADLEY-WRIGHT THAT DEP HAS TAKEN LITTLE VISIBLE ACTION TOWARDS IMPEMENTING**

**STAKEHOLDER MEMBER RECOMMENDATIONS UNTIL RECENTLY?**

A. No, I do not. The Company is eager to find new ways to encourage customers' energy efficiency, but the process of developing new ideas into cost-effective, scalable, commercially viable programs is complex. Witness Bradley-Wright listed seven specific ideas that the Collaborative submitted since 2019. In the paragraphs below, I describe the Company's meaningful actions toward implementing each of these program ideas.

<u>Low-Income Housing Tax Credit ("LIHTC")</u>

Members originally brought this idea to the Company in March 2019 as a suggestion for a stand-alone program to reach multifamily housing developments that were applying for tax credits. Upon further investigation, the Company found and shared with the Collaborative that all the measures that would be part of this idea for a stand-alone program, along with substantial design assistance, were already offered to customers through the Smart $aver Custom New Construction Energy Efficiency Design Assistance program ("NCEEDA"). Although LIHTC was ultimately not appropriate for a stand-alone new program, DEP recognized and acted upon an opportunity to tap into savings potential. The Company and several Collaborative members scheduled a joint statewide workshop with developers, architects, and contractors to generate interest. Although the time between planning and completion is often long, developers are seeing the benefits of pairing rebates with tax credits, and the Company is continuing to pursue these projects.

<u>Energy Star Retail Products Platform ("ESRPP")</u>

The Company investigated the ESRPP when the Collaborative submitted the idea for consideration in January 2020 and found that it replicated many of the features that were part of a DEP program that was already in effect. The Company determined at that time that the best course of action was to allow the existing program to mature and not to pursue an external alternative simultaneously. Recently, at the request of the Collaborative, the Company revisited the idea of utilizing the ESRPP and found that the platform offered no additional cost savings or measure expansion, but could serve as a reference point in the future when the Company searches for new measures. DEP communicated that finding to the Collaborative in July 2021.

Program Savings from Codes and Standards

Members of the Collaborative suggested that the Companies could claim savings from advancing building energy codes and appliance standards in the Carolinas and suggested creating a program to capture those savings. However, the Companies responded, both in January 2020, when the idea was originally submitted, and in July 2021, when it was revisited, that North and South Carolina do not have a statutory or regulatory framework that defines the actions a utility must take to claim attributed savings or to determine the appropriate attribution methodology. If and when the regulatory or statutory frameworks change, DEP will revisit the possibility of such a program.

Residential Low-Income Single-Family Heat Pump Water Heater Rental Program

In recognition of the energy savings potential of heat pump water heaters (“HPWH”), members recommended in June 2020 that DEP offer a program whereby low-income customers rent a HPWH for their homes directly from DEP and add the payment to their electric bills. Members also presented research explaining that a HPWH needs a minimum of 750 cubic feet of unobstructed space for proper ventilation or exhaust vents. It also needs to be located near a drain like the one used for washing machines or needs to be connected to a condensate pump. The Company immediately began investigating the feasibility of installations. Unfortunately, this program suggestion is complex, requiring the Company to have both an on-bill collection mechanism for receiving payments and also vendors capable of installing HPWH on a wide scale. Once that mechanism is established and qualified vendors are identified, the Company must then locate low-income customers – either homeowners or renters with owner approval – who have appropriate space, such as a garage or basement, and are willing to enter into a rental agreement. To date, that program design research is ongoing.

<u>Non-Residential Multifamily Heat Pump Water Rebate Program</u>

Members suggested that the Company approach multifamily property owners with the offer of a rebate for installing HPWHs. Each HPWH would serve multiple units within the building. To date, the Company has determined that it can include HPWH in the New Construction Energy Efficiency Design Assistance ("NCEEDA") program, but no developer has expressed an interest in participating.

<u>Manufactured Homes Retrofit Program</u>

Members suggested a program that retrofits manufactured homes with more efficient heating and air conditioning equipment, replaces or repairs duct work, and insulates and seals the structure's envelope. The Company has not developed this into a new program because all the measures recommended are already part of the Residential Smart $aver program and thus currently available to manufactured homes.

Manufactured Home New and Replacement Programs

Members suggested that the Company begin a program to offer an incentive for replacing inefficient manufactured homes with Energy Star manufactured homes. The Company is investigating whether an incentive of this type can be included in the Residential New Construction program but has not determined if it is feasible. Again, the program design research is ongoing.

**Q. WHY DO YOU THINK WITNESS BRADLEY-WRIGHT IS DISSATISFIED WITH THE PROGRESS THAT PROGRAM IDEAS FROM STAKEHOLDERS HAVE MADE?**

A. Turning ideas into viable programs can be difficult work, and despite his expertise in policy work around the Southeast, Witness Bradley-Wright's testimony does not account for the technical side of program development. In other words, I believe that what Witness Bradley-Wright interprets as the Company's failure to take visible action is actually the nature of product development. In fact, Ideascale, an innovation management software company, estimates that only 10% of submitted ideas make their way to implementation.[1] Ideascale describes work to develop only a commercially viable product. In

[1] https://ideascale.com/innovation-metrics-ideation-rate-vs-implementation-rate/ accessed September 14, 2021

contrast, DEP has the responsibility to develop, propose, implement and administer cost-effective DSM/EE programs that comply with this Commission's Rules and the Mechanism that the Commission has approved for use by the Company for DSM/EE program cost recovery purposes. These additional hurdles add complexity and time to the program development process.

**Q. IS THERE VALUE IN THE COLLABORATIVE SUBMITTING IDEAS IF IT APPEARS THAT NOT ALL WILL BE DEVELOPED INTO COMMERCIALLY VIABLE PROGRAMS?**

A. Yes, there is. The Company finds value in these suggestions. Even if the Company is not able to start up and implement a new program when the Collaborative submits an idea, the engagement assures that the Company is aware of as many potential opportunities to enhance and provide cost-effective programs for all DEP customers. Moreover, the Company often finds other value in their suggestions. For example, LIHTC opened up a new conversation with developers, and ESRPP will be a source in the future to confirm that the measure list remains expansive.

**Q. SHOULD THE COMPANY BE REQUIRED TO TRACK THE SAVINGS RESULTING FROM COLLABORATIVE SUGGESTIONS AND MEET DEADLINES FOR RESPONDING TO THEM?**

A. No, it should not. Deciding what portion of energy savings is attributable to the Collaborative and what portion the Company achieved on its own creates no benefit for customers and is antithetical to the nature of true collaboration. Since Collaborative members and the Company are aligned under the mission statement above and a common desire to bring successful cost-effective EE/DSM programs to customers, attempting to track and assign credit for successes is unnecessary and counterproductive. Furthermore, because program development is already challenging, imposing arbitrary deadlines to speed up the process will likely undermine the Company's ability to give each suggestion the amount of research and investigation it warrants.

**Q. DID THE COMPANY NOTIFY THE COLLABORATIVE OF THE UPCOMING CHANGES IN SAVINGS PROJECTIONS IN EXISTING PROGRAMS FOR 2022?**

A. Witness Bradley-Wright testified that he was not aware of the Company's plans to substantially increase savings projections for many of its programs or to decrease the savings projections for the multifamily program. He went on to state that one of the implications of DEP's failure to communicate was that members were not able to comment on or contribute to the decision. Witness Bradley-Wright's testimony appears to be the result of his confusing the required application of EM&V results to the energy savings underlying the Company's 2022 projections with uncommunicated "plans" for the programs. The reality is the energy savings adjustments included in the projections for 2022 are the result of EM&V studies, each of which was presented to the Collaborative in detail. The multifamily program – which was the only program with a reduction in savings, an adjustment Witness Bradley-Wright says the members would have found "concerning" – was directly tied to the EM&V study sent to all members in July 2020 and then reviewed during the four-hour

Collaborative meeting one week later. Witness Bradley-Wright received that study in its entirety and participated in the meeting where it was discussed.

**Q. DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

A. Yes.

BY MS. FENTRESS:

Q Mr. Evans, I'll start with you. Do you have a summary of your rebuttal testimony?

A Yes, I do.

Q Can you please give your summary.

A The purpose of my rebuttal testimony is to respond to testimony of Forest Bradley-Wright, filed on behalf of the North Carolina Justice Center, the North Carolina Housing Coalition, the Southern Alliance for Clean Energy, and to the testimony of Michael Maness filed on behalf of Public the Staff.

In response to witness Bradley-Wright's comments about the 1 percent annual savings targets, I point out that the target is an aspirational goal and not an express requirement of the South Carolina Merger Settlement Agreement, which covered a multi-area period that ended in 2018.

The Company's attainment of this goal has been hampered by the lack of clarity on the Merger Settlement Agreement on the impact of eligible non-residential customers who opt out of participating in the Company's DSM and EE programs.

Opt-out sales should be removed from the calculation savings goals since the customers that have opted out are not eligible to save in the Company's DSM/EE programs.

Next, I disagree with witness Bradley Wright's recommendation that the Company increase its low-income energy efficiency program budgets to match those of DEC on a per-residential basis, per-residential customer basis.

Increasing the budget will not necessarily increase participation or the associated savings in an EE program.

Next, I disagree with witness Bradley-Wright's position regarding the quantification of carbon savings associated with its DSM/EE portfolio because there are no transparent or recognized financial impacts within the DSM/EE mechanism associated explicitly with carbon savings. Such quantification is outside the scope of DEP's EE cost recovery filings at this time.

Finally, I disagree with witness Bradley-Wright's comments on the Market Potential

Study, (MPS). Although the MPS is used to inform program offerings, it is not a direct input into energy savings in the Company's 2022 projection in this proceeding.

Witness Bradley-Wright's concern regarding the MPS and the impact of utilizing the TRC versus UCT for planning purposes is more appropriate in integrated resource planning proceedings rather than in this annual rider proceeding.

With respect to the recommendation of Public Staff witness Maness to refine the Find It Duke referral channel accounting, the Company is working with the Public Staff to identify and quantify the applicable non-EE related referral costs and revenues so that they may be removed from the requested cost recovery in this proceeding.

The Company will also review and, if appropriate, discuss with the Public Staff the impact of the Commission's decision prior to the Duke Energy Carolinas, LLC or the Company's next annual rider proceeding. This concludes my summary.

MS. FENTRESS: Thank you, Mr. Evans. Ms. Shafer, do you have a summary of your rebuttal testimony?

MS. SHAFER: I do.

MS. FENTRESS: Could you please give your summary.

A My rebuttal testimony responds to statements of Forest-Bradley-Wright, filed on behalf of the North Carolina Justice Center, the North Carolina Housing Coalition, and the Southern Alliance for Clean Energy pertaining to the Energy Efficiency and Demand-Side Management Collaborative.

Witness Bradley-Wright asserted that the Company has not acted on Collaborative suggestions --

COMMISSIONER BROWN-BLAND: Ms. Shafer?

MS. SHAFER: Yes.

COMMISSIONER BROWN-BLAND: Just a minute. We're hearing some interference or feedback with your microphone, I believe, and I'm not sure what's causing it. I want to be sure the court reporter is able to take down what you're saying. Madam court reporter, are you able to hear?

(No response)

COMMISSIONER BROWN-BLAND: Chair Mitchell is there with you and is able to understand that you can't hear. Ms. Shafer, you may continue.

A Witness Bradley-Wright asserted that the Company has not acted on Collaborative suggestions appropriately or communicated savings projections in a way that would allow for meaningful participation by Collaborative members.

With respect to implementing Collaborative suggestions, the Company is eager to find new ways to encourage energy efficiency, but the process to develop ideas into cost-effective, scalable, commercially viable programs is complex.

DEP must develop, implement, and administer programs that are not only cost-effective but also comply with Commission rules and orders.

Witness Bradley-Wright erroneously characterizes the Company's deliberate nature in the product development as a failure to act on suggestions of Collaborative members.

The Company finds value in Collaborative suggestions, even if the Company is not able to implement a new program at this time.

My testimony addresses the seven Collaborative recommendations that witness Bradley-Wright cited in his testimony.

With respect to witness Bradley-Wright's recommendation to track savings that result from Collaborative suggestions, I believe that attempting to track and assign credit for success is not only unnecessary but also antithetical to the mission statement of the Collaborative.

Additionally, imposing arbitrary deadlines to speed up program development will likely undermine the Company's ability to give each suggestion the amount of research and investigation it warrants.

Additionally, witness Bradley-Wright stated that he was unaware of upcoming changes in the savings projections for existing programs in 2022, which, in his opinion, implied that Collaborative members were unable to comment on or contribute to the decision.

The reality is that energy savings adjustments are the result of EM&V studies, each of which was presented to the Collaborative in detail.

For example, the EM&V study for the only program to have a reduction in savings, the multi-family program, was sent to the Collaborative in July, 2020 and then reviewed during the four-hour Collaborative meeting one week later.

Witness Bradley-Wright received that study and participated in the meeting where it was discussed. This concludes the summary of my testimony.

MS. FENTRESS: The witnesses are available for cross-examination.

COMMISSIONER BROWN-BLAND: Is there cross-examination for these witnesses?

(No response)

COMMISSIONER BROWN-BLAND: None for the Public Staff. I see the Joint Intervenors. None for the Joint Intervenors. CIGFUR?

MS. CRESS: No questions.

COMMISSIONER BROWN-BLAND: And CUCA?

MR. SCHAUER: No questions from CUCA. Thank you.

COMMISSIONER BROWN-BLAND: Thank you. Are there questions from the Commissioners? I see Commissioner Hughes.

EXAMINATION BY COMMISSIONER HUGHES:

Q Yes. I'm just curious, and this is a question for either of the witnesses, if they participated in this debate about how to improve the 1 percent and the budgeting during the Collaborative, if this conversation has been going on in the Collaborative meetings as well?

A I'll answer that. It has been going on with Collaborative. The Collaborative has been focused on meeting that 1 percent threshold, not because it's a mandated target but because it's -- as witness Bradley-Wright stated in his testimony, it's a metric that is important to Collaborative members.

So we have been talking about the 1 percent. And, in fact, witness Bradley-Wright, he was an active and valuable member of our Collaborative, is spearheading the subgroup or the working group that is developing a plan right now to meet that 1 percent.

As far as the budgeting goes, we

discussed with the Collaborative many times that the budget that we bring to the rider filing is used to set rates.

So if we arbitrarily increase the budget, as if agreeing to spend more money will do the trick, then what will actually happen, what's guaranteed to happen, is that our rate goes up. What's not guaranteed to happen is that our energy savings goes up.

So we prefer to set our budgets rather conservatively, but we have no cap, and we discussed with the Collaborative many times. If we have more demand than we have budgeted for, we meet that demand, we serve those customers, and then our regulatory recovery mechanism allows for true-up in subsequent years so we can handle it that way.

Q Thank you. And just as a follow-up question, have you discussed alternative or additional target to metrics? I know we have some sub that targets for low-income, but have there been any discussion about modifying that 1 percent or having an additional or alternative performance target?

A We have talked about that. That's part of the working group that witness Bradley-Wright is spearheading, because as you know, energy efficiency is only one part of Demand-Side Management.

We also have Demand response, and then we also have specific customer groups that we'd like to target, not just low-income but also small businesses.

And so that is in discussion, and, you know, we're leaning on the expertise of witness Bradley-Wright to help us with that.

COMMISSIONER HUGHES: Thank you. No further questions.

COMMISSIONER BROWN-BLAND: Any other questions from the Commission?

(No response)

COMMISSIONER BROWN-BLAND: I'm not seeing any. Are there questions on Commission's questions? Ms. Fentress?

MS. FENTRESS: I do have one -- a couple, Madam Chair.

EXAMINATION BY MS. FENTRESS:

Q Ms. Shafer, do you have in front of you what was -- what has been marked DEP's SACE, NCJC, NCHC Redirect Exhibit Number 1? And I believe this was provided to the parties and the Commission on Friday afternoon.

A I do.

Q And can you tell us what the title of that exhibit is?

A That is Energy Efficiency in the Southeast. It's the Southern Lights Clean Energy's annual report published in January of this year.

Q And I believe Commissioner Hughes was asking you about DEP's efforts to meet the 1 percent savings target. Can you turn to page 6 of that exhibit?

A Yes, ma'am. I'm there.

Q Can you describe for us how well DEP does in comparison with other Southeast utilities who are similarly situated with climate geography with respect to meeting percentage of prior year retail sales and energy savings?

A Gladly. So DEP is number 2 in the southeast, as you can see from SACE's report, second only to DEC, but far ahead of not only the national average, but way ahead of number 3 Georgia Power, so DEP is performing very well.

And although it's difficult to compare savings across utilities because each state and jurisdiction has its own regulatory constraints or just ways of calculating savings, I think that comparing the companies to their peer utilities in the southeast is probably the most accurate or at least the most helpful benchmark, and you can see from SACE's report that DEP has done very well.

Q Thank you. When you were talking about states, just to follow up, if you turn to page 5 of that report, and let me know when you're there.

A I'm there.

Q. Thank you. How does North Carolina stack up with respect to energy savings as the percentage of prior years retail sales?

A North Carolina outstripped its number 2 South Carolina by quite a bit, .66 percent as opposed to South Carolina at .41 percent. They're very close to the national average of .67, which considering the climate that the Carolinas have, it's quite an achievement.

MS. FENTRESS: Thank you. That is all I have for Ms. Shafer.

COMMISSIONER BROWN-BLAND: Thank you. Joint Intervenors? Any questions on Commission's questions?

MR. SCHAUER: No questions. Thank you.

COMMISSIONER BROWN-BLAND: CIGFUR?

MS. CRESS: No questions. Thank you.

COMMISSIONER BROWN-BLAND: CUCA?

MR. SCHAUER: No questions from CUCA. Thank you.

COMMISSIONER BROWN-BLAND: Ms. Fentress.

MS. FENTRESS: Yes. I would like to move DEP's SACE, NCJC, NCHC Redirect Exhibit Number 1 into the record, please.

COMMISSIONER BROWN-BLAND: Without objection, that motion is allowed and the exhibit is received into evidence.

(WHEREUPON, DEP - SACE, NCJC, NCHC Redirect Exhibit 1 is identified and received into evidence.)

COMMISSIONER BROWN-BLAND: Ms. Fentress, I don't recall that we brought the application in.

MS. FENTRESS: Oh. I would like to please move that into the record as well.

COMMISSIONER BROWN-BLAND: Without

objection, the application will be received into the record, and the panel witnesses are excused.

(WHEREUPON, Duke Energy's Application is admitted into evidence.)

COMMISSIONER BROWN-BLAND: Is there anything else that pertains to the case that needs to be brought to the Commission's attention at this time? If not, will we go with the customary proposed orders and briefs, are due 30 days from the publication of the transcript?

(No response)

COMMISSIONER BROWN-BLAND: It will be so ordered. And I believe, Ms. Fentress, you have a little bit of a list of late-filed exists to bring.

MS. FENTRESS: We will get that to the Commission very quickly.

COMMISSIONER BROWN-BLAND: If there's nothing else to come before the Commission at this time -- any one needs to clear anything up that transpired in our time together?

(No response)

COMMISSIONER BROWN-BLAND: Then we will be adjourned, everybody.

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WHEREUPON, this Proceeding is adjourned.

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C E R T I F I C A T E

I, TONJA VINES, DO HEREBY CERTIFY that the Proceedings in the above-captioned matter were taken before me, that I did report in stenographic shorthand the Proceedings set forth herein, and the foregoing pages are a true and correct transcription to the best of my ability.

Tonja Vines
_______________________

Tonja Vines