

**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-2, SUB 1206

In the Matter of  
Application of Duke Energy Progress, LLC,            )  
for Approval of Demand-Side Management            ) ORDER APPROVING DSM/EE  
and Energy Efficiency Cost Recovery Rider         ) RIDER AND REQUIRING FILING  
Pursuant to N.C.G.S. § 62-133.9 and                ) OF PROPOSED CUSTOMER  
Commission Rule R8-69                                 ) NOTICE

HEARD:       Monday, September 9, 2019, in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina

BEFORE:      Commissioner ToNola D. Brown-Bland, Presiding; Chair Charlotte A. Mitchell, Commissioner Lyons Gray and Commissioner Daniel G. Clodfelter

APPEARANCES:

For Duke Energy Progress, LLC:

Kendrick Fentress, Associate General Counsel, Duke Energy Corporation,  
401 South Wilmington Street, Raleigh, North Carolina 27602

For the Carolina Utility Customers Association, Inc.:

Robert F. Page, Crisp & Page, PLLC, 4010 Barrett Drive, Suite 205,  
Raleigh, North Carolina 27609

For the Carolina Industrial Group for Fair Utility Rates II:

Ralph McDonald, Bailey & Dixon, LLP, 434 Fayetteville Street, Suite 2500,  
Raleigh, North Carolina 27602

For the North Carolina Sustainable Energy Association:

Benjamin Smith, Regulatory Counsel, 4800 Six Forks Road, Suite 300,  
Raleigh, North Carolina 27609

For the North Carolina Justice Center, Southern Alliance for Clean Energy, and North Carolina Housing Coalition:

David Neal, Senior Attorney, Gudrun Thompson, Senior Attorney, Southern Environmental Law Center, 601 West Rosemary Street, Suite 220, Chapel Hill, North Carolina 27516

For the Using and Consuming Public:

Lucy E. Edmondson, Public Staff – North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699

BY THE COMMISSION: North Carolina General Statute § 62-133.9(d) authorizes the North Carolina Utilities Commission (Commission) to approve an annual rider to the rates of electric public utilities to recover all reasonable and prudent costs incurred for the adoption and implementation of new demand-side management (DSM) and energy efficiency (EE) programs. The Commission is also authorized to award incentives to electric utilities for adopting and implementing new DSM/EE measures, including rewards based on the sharing of savings achieved by the programs. Commission Rule R8-69(b) provides that the Commission will each year conduct a proceeding for each electric utility to establish an annual DSM/EE rider to recover the reasonable and prudent costs incurred for adopting and implementing new DSM/EE measures previously approved by the Commission pursuant to Commission Rule R8-68. Under Commission Rule R8-69, such rider consists of the utility's forecasted costs during the rate period, similarly forecasted performance incentives (including net lost revenues (NLR)) as allowed by the Commission, and an experience modification factor (EMF) rider to collect the difference between the utility's actual reasonable and prudent costs and incentives incurred and earned during the test period and the actual revenues realized during the test period under the DSM/EE rider (based on previous forecasts) then in effect.

On June 11, 2019, Duke Energy Progress, LLC (DEP or the Company), filed an application for approval of its annual DSM/EE cost recovery rider (Application) pursuant to N.C. Gen. Stat. § 62-133.9 and Commission Rule R8-69. With the Application, DEP filed the direct testimony and exhibits of Carolyn T. Miller and Robert P. Evans in support of recovery of DSM/EE costs and utility incentives forecasted for the rate period of January 1, 2020, through December 31, 2020, including program expenses, amortizations and carrying costs associated with deferred prior period costs, Distribution System Demand Response (DSDR) depreciation and capital costs, NLR, and program and portfolio performance incentives (PPI). In addition, DEP asked for approval of an EMF component of its DSM/EE rider to true-up its actual DSM/EE costs and utility incentives during the test period of January 1, 2018, through December 31, 2018.

On June 24, 2019, the Commission issued an order scheduling a public hearing in this matter for September 9, 2019, establishing discovery guidelines, providing for intervention and testimony by other parties, and requiring public notice. On September 6, 2019, DEP filed its affidavits of publication indicating that the Company had

provided notice in newspapers of general circulation as required by the Commission's June 24, 2019 order.

The intervention of the Public Staff is recognized pursuant to N.C. Gen. Stat. § 62-15(d) and Commission Rule R1-19(e). On July 15, 2019, the North Carolina Justice Center, Southern Alliance for Clean Energy (SACE), Natural Resources Defense Council (NRDC), and North Carolina Housing Coalition (collectively, NC Justice Center, et al.) filed a petition to intervene, which was granted by Commission order on July 16, 2019. On July 22, 2019, the Carolina Utility Customers Association, Inc. (CUCA), filed a petition to intervene, which was granted by Commission order on July 24, 2019. On August 8, 2019, the North Carolina Sustainable Energy Association (NCSEA) filed a petition to intervene, which was granted by Commission order on August 13, 2019. On August 19, 2019, the Carolina Industrial Group for Fair Utility Rates II (CIGFUR) filed a petition to intervene, which was granted by Commission order on August 20, 2019.

On August 19, 2019, NC Justice Center, et al. filed the testimony and exhibits of Forest Bradley-Wright, and the Public Staff filed the testimony and exhibits of Michael C. Maness and David M. Williamson.

On August 28, 2019, DEP filed the rebuttal testimony of Robert P. Evans. On September 4, 2019, DEP filed the supplemental testimony and exhibits of witness Miller and the supplemental exhibits of witness Evans (Supplemental Filing).

On September 5, 2019, NC Justice Center, et al., DEP, and the Public Staff filed a Joint Motion to Excuse DEP witness Miller and Public Staff witnesses Williamson and Maness. On September 6, 2019, the Commission issued an Order Granting the Motion in Part by excusing witnesses Miller and Maness, but declining to excuse witness Williamson.

On September 9, 2019, the Public Staff filed a letter indicating that the Supplemental Filing adequately addressed the DSM/EE rate adjustments previously recommended by the Public Staff.

On September 9, 2019, the hearing was held as scheduled. No public witnesses appeared at the hearing.

On October 7, 2019, the Public Staff filed a letter indicating that it had completed its review of test year program costs and found no material differences in the program costs filed and the supporting documentation. On October 8, 2019, the Commission issued an order closing the record and directing that the parties submit briefs, proposed orders, or both no later than October 28, 2019.

On October 28, 2019, the Commission issued an Order Granting Motion for Extension of Time to File Briefs and Proposed Orders, directing the parties to file briefs and proposed orders no later than November 7, 2019. On November 6, 2019, the Commission issued an Order Granting Second Motion for Extension of Time to File Briefs

and Proposed Orders, directing that the parties submit briefs and proposed orders on or before November 14, 2019.

On November 14, 2019, DEP and the Public Staff filed a joint proposed order.

Also on November 14, 2019, NC Justice Center, et al., filed a Post-Hearing Brief.

### Cost Recovery Mechanism

On June 15, 2009, in Docket No. E-2, Sub 931, the Commission issued an Order Approving Agreement and Stipulation of Partial Settlement, Subject to Certain Commission-Required Modifications in DEP's first DSM/EE rider proceeding (Sub 931 Order). In the Sub 931 Order, the Commission approved, with certain modifications, an Agreement and Stipulation of Partial Settlement (Stipulation) between DEP, the Public Staff, and Wal-Mart Stores East, LP, and Sam's East, Inc., setting forth the terms and conditions for approval of DSM/EE measures and the annual DSM/EE rider proceedings pursuant to N.C. Gen. Stat. § 62-133.9 and Commission Rules R8-68 and R8-69. The Stipulation included a Cost Recovery and Incentive Mechanism for DSM and EE Programs (Original Mechanism), which was modified by the Commission in its Sub 931 Order and subsequently in its Order Granting Motions for Reconsideration in Part issued on November 25, 2009, in the same docket. The Original Mechanism as approved after reconsideration allowed DEP to recover all reasonable and prudent costs incurred and utility incentives earned for adopting and implementing new DSM and EE measures in accordance with N.C. Gen. Stat. § 62-133.9, Commission Rules R8-68 and R8-69, and the additional principles set forth in the Original Mechanism.

On January 20, 2015, in Docket No. E-2, Sub 931, the Commission issued an Order Approving Revised Cost Recovery and Incentive Mechanism and Granting Waivers. In that Order, the Commission approved an agreement between DEP, the Public Staff, NRDC, and SACE proposing revisions to the Original Mechanism, generally to be effective January 1, 2016 (Revised Mechanism). The Revised Mechanism allows DEP to recover all reasonable and prudent costs incurred and utility incentives earned for adopting and implementing new DSM and EE measures in accordance with N.C. Gen. Stat. § 62-133.9, Commission Rules R8-68 and R8-69, and the additional principles set forth in the Revised Mechanism.

On November 27, 2017, in Docket No. E-2, Sub 1145 (Sub 1145), the Commission issued its Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice (Sub 1145 Order), in which it approved the agreement to revise certain provisions of the Revised Mechanism reached by the Company and the Public Staff. The Revised Mechanism, as revised by the Sub 1145 Order, is set forth in Maness Exhibit I filed in Sub 1145, and is referred to herein as the "Mechanism."

In the present proceeding, based upon DEP's verified Application, the parties' testimony and exhibits received into evidence, and the entire record, the Commission makes the following:

## FINDINGS OF FACT

1. DEP is a duly organized limited liability company existing under the laws of the State of North Carolina, is engaged in the business of developing, generating, transmitting, distributing, and selling electric power to the public in North and South Carolina, and is subject to the jurisdiction of the Commission as a public utility. DEP is lawfully before this Commission based upon its application filed pursuant to N.C. Gen. Stat. § 62-133.9 and Commission Rule R8-69.

2. The test period for purposes of this proceeding extends from January 1, 2018, through December 31, 2018.

3. The rate period for purposes of this proceeding extends from January 1, 2020, through December 31, 2020.

4. DEP has requested approval for the recovery of costs, and utility incentives where applicable, related to the following DSM/EE programs:

### Residential

- Appliance Recycling
- EE Education Program
- Multi-Family EE
- My Home Energy Report (MyHER)
- Neighborhood Energy Saver (Low-Income)
- Smart \$aver EE Program (formerly, Home Energy Improvement Program)
- New Construction
- EnergyWise (Load Control)
- Save Energy and Water Kit
- Energy Assessment
- Low-Income Weatherization Pay for Performance Program

### Non-Residential

- Smart \$aver Energy Efficient Products and Assessments (formerly, EE for Business)
- Smart \$aver Performance Incentive Program
- Small Business Energy Saver
- Commercial, Industrial, and Governmental (“CIG”) Demand Response Automation
- EnergyWise for Business

## Residential and Non-Residential

- DSDR
- EE Lighting

These programs are eligible for cost and utility incentive recovery, where applicable.

5. For purposes of inclusion in this DSM/EE rider, the Company's portfolio of DSM and EE programs is cost-effective, and the Commission does not direct that any action be taken on any of these programs at this time.

6. The evaluation, measurement, and verification (EM&V) reports filed as Evans Exhibits A, B, C, D, E, F, G, H, and I are acceptable for purposes of this proceeding and should be considered complete for purposes of calculating program impacts. DEP has appropriately incorporated the results of these EM&V reports into the DSM/EE rider calculations.

7. The Company has complied with the Commission's requirement that DEP monitor the changes in annual ratios of allocations between non-DSDR and DSDR equipment and report the degree of change in its annual DSM/EE rider filing. Based on its review, the Company determined that the capacitor allocation ratio should be increased from 20.36 to 21.08, and the regulatory allocation ratio should be increased from 77.60 to 78.50 percent. Annual review of the allocation ratios should continue and be reported to the Public Staff each year, and any changes should be addressed in future rider proceedings.

8. In its direct testimony and exhibits, DEP requested the recovery of NLR in the amount of \$29,302,640 and PPI in the amount of \$26,119,369 through the EMF component of the total DSM/EE rider, and NLR of \$27,919,544 and PPI of \$24,434,366 for recovery in the forward-looking, or prospective component of the total rider. Due to additional analysis performed by DEP and discussions with the Public Staff during the proceeding, in its Supplemental Filing the Company corrected its EMF PPI amount to \$26,099,254. The Company also corrected its prospective PPI amount to \$24,472,099, as reflected in its Supplemental Filing. DEP's proposed recovery of NLR and PPI, as adjusted by the Supplemental Filing, is consistent with the Mechanism and is appropriate, subject to further review to the extent allowed in the Mechanism.

9. For purposes of the DSM/EE rider to be set in this proceeding and subject to review in DEP's future DSM/EE rider proceedings, the reasonable and appropriate estimate of the Company's North Carolina retail DSM/EE program rate period amounts, consisting of its amortized operations and maintenance (O&M) costs, depreciation, capital costs, taxes, amortized incremental administrative and general (A&G) costs, carrying charges, NLR, and PPI, is \$164,795,570, and this is the appropriate amount to use to develop the forward-looking DSM/EE revenue requirement. This amount is the total of the \$168,018,977 proposed in DEP's initial filing and the total adjustment of \$(3,223,407) reflected in DEP's Supplemental Filing.

10. For purposes of the EMF component of its DSM/EE rider, DEP's reasonable and prudent North Carolina retail test period costs and incentives, consisting of its amortized O&M costs, capital costs, taxes, amortized incremental A&G costs, carrying charges, NLR, and PPI, are \$167,818,449. This amount is the total of the \$171,490,556 proposed in DEP's initial filing and total EMF adjustments of \$(3,672,107) reflected in DEP's Supplemental Filing. The reasonable and appropriate amount of test period DSM/EE rider revenues and miscellaneous adjustments to take into consideration in determining the test period DSM/EE under- or over-recovery as filed in DEP's Supplemental Filing and including prior period adjustments for over-recovery of DSDR depreciation is \$166,957,293. Therefore, the test period revenue requirement, as reduced by the test period revenues collected and miscellaneous adjustments, is \$861,157, which is the test period under-collection that is appropriate to use as the DSM/EE EMF revenue requirement in this proceeding.

11. After assignment or allocation to customer classes in accordance with N.C. Gen. Stat. § 62-133.9, Commission Rule R8-69, and the Commission Orders in Docket No. E-2, Sub 931, the revenue requirements for each rate class, excluding the North Carolina Regulatory Fee (NCRF), are as follows:

DSM/EE PROSPECTIVE COMPONENT:

Residential	\$97,771,978
General Service EE	60,076,576
General Service DSM	6,645,218
Lighting	<u>301,798</u>
Total	<u>\$164,795,570</u>

DSM/EE EMF:

Residential	\$(9,387,664)
General Service EE	11,626,883
General Service DSM	(1,257,705)
Lighting	<u>(120,357)</u>
Total	<u>\$861,157</u>

12. The appropriate and reasonable North Carolina retail class level kilowatt-hour (kWh) sales for use in determining the DSM/EE and DSM/EE EMF billing factors in this proceeding are:

<u>Rate Class</u>	<u>kWh Sales</u>
Residential	16,011,833,010
General Service EE	9,657,233,917
General Service DSM	9,555,153,028
Lighting	360,095,612

13. The appropriate DSM/EE EMF billing factors, excluding NCRF, are: (0.058) cents per kWh for the Residential class; 0.120 cents per kWh for the EE component of the General Service classes; (0.013) cents per kWh for the DSM component of the General Service classes, and (0.033) cents per kWh for the Lighting class. These DSM/EE EMF billing factors do not change when the NCRF is included.

14. The appropriate forward-looking DSM/EE rates to be charged by DEP during the rate period, excluding NCRF, are: 0.611 cents per kWh for the Residential class; 0.622 cents per kWh for the EE component of the General Service classes; 0.070 cents per kWh for the DSM component of the General Service classes; and 0.084 cents per kWh for the Lighting class. The appropriate forward-looking DSM/EE rates to be charged by DEP during the rate period, including NCRF, are: 0.612 cents per kWh for the Residential class; 0.623 cents per kWh for the EE component of the General Service classes; 0.070 cents per kWh for the DSM component of the General Service classes; and 0.084 cents per kWh for the Lighting class.

15. DEP and the Collaborative participants should give particular attention to the five directives stated by the Commission in this Order, and DEP should provide a report on the progress made in satisfying the directives in the Company's 2020 DSM/EE rider application.

16. The Company should continue Collaborative meetings so that the combined DEP/Duke Energy Carolinas, LLC (DEC) Collaborative meets every two months.

#### EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 1

This finding of fact, which is supported by DEP's Application, is essentially informational, procedural, and jurisdictional in nature, and is uncontroverted

#### EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 2-3

No party opposed DEP's proposed rate period and test period. The rate period and test period proposed by DEP are consistent with the Mechanism approved by the Commission. The proposed rate period and test period are reasonable.



## EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 4

The evidence for this finding of fact can be found in DEP's Application, the testimony and exhibits of DEP witnesses Miller and Evans, the testimony of Public Staff witness Williamson, and various Commission orders in program approval dockets.

DEP witness Miller's testimony shows the portfolio of DSM/EE programs that is associated with the Company's request for approval of this rider. (Tr. at 17.) The direct testimony of DEP witness Evans lists the DSM/EE programs for which the Company is requesting cost recovery, and incentives where applicable, in this proceeding. (Id. at 68-69.) Those programs are:

### Residential

- Appliance Recycling
- EE Education Program
- Multi-Family EE
- MyHER
- Neighborhood Energy Saver (Low-Income)
- Smart \$aver EE Program (formerly, Home Energy Improvement Program)
- New Construction
- EnergyWise (Load Control)
- Save Energy and Water Kit
- Energy Assessment
- Low-Income Weatherization Pay for Performance

### Non-Residential

- Smart \$aver Energy Efficient Products and Assessments (formerly, EE for Business)
- Smart \$aver Performance Incentive Program
- Small Business Energy Saver
- CIG Demand Response Automation
- EnergyWise for Business

### Residential and Non-Residential

- DSDR
- EE Lighting

(Id.)

In his testimony, Public Staff witness Williamson also listed the DSM/EE programs for which the Company seeks cost recovery and noted that each of these programs has

received 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. (Id. at 212-14.)

Thus, the Commission finds and concludes that each of the programs listed by witnesses Evans and Williamson has received Commission approval as a new DSM or EE program and is, therefore, eligible for cost recovery in this proceeding under N.C. Gen. Stat. § 62-133.9.

#### EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 5

The evidence for this finding can be found in the testimony and exhibits of Company witness Evans, Public Staff witness Williamson, and NC Justice Center, et al., witness Bradley-Wright.

DEP witness Evans testified that the Company reviewed the portfolio of DSM/EE programs and performed prospective analyses of each of its programs and the aggregate portfolio for the Vintage 2020 period, the results of which are incorporated in Evans Exhibit No. 7. (Tr. at 69-70.) He noted that the Company's aggregate portfolio continues to project cost-effectiveness. (Id. at 70.) However, DEP's calculations indicate that the following programs do not pass the Total Resource Cost test (TRC) threshold of 1.00: the Neighborhood Energy Saver Program, which was not cost-effective at the time of approval, but was instead approved based on societal benefits; Residential Smart \$aver; Non-Residential Smart \$aver Performance Incentive; and EnergyWise for Business. (Id. at 70; See Evans Ex. 7.) Witness Evans committed to providing further information on the EnergyWise for Business Program's continuation in the Company's 2020 cost recovery request. (Tr. at 70.)

Public Staff witness Williamson stated in his testimony that he reviewed DEP's calculations of cost-effectiveness under each of the four standard cost-effectiveness tests – the Utility Cost test (UCT), TRC, Participant, and Ratepayer Impact Measure (RIM) tests. (Id. at 220.) The Public Staff also compared the cost-effectiveness test results in previous DSM/EE proceedings to the current filing and developed a trend of cost-effectiveness that serves as the basis for the Public Staff's recommendation of whether a program should be terminated. (Id. at 222.) Witness Williamson testified that while many programs continue to be cost-effective, the TRC scores as filed by the Company for all programs have decreased since the 2017 DSM/EE rider proceeding, mainly due to changes in avoided costs, but also due to updated EM&V and program participation. (Id. and Williamson Exhibit 2.)

Witness Williamson further testified about how changes in the implementation of lighting standards may impact DEP's EE programs going forward and how North Carolina's lighting market was transforming. Since the Company began distributing lighting measures to its customers through DSM/EE programs, the acceptance of more efficient lighting measures has been increasing. Witness Williamson stated that the Company had been updating its lighting measure offerings to those focused on non-specialty LED bulbs. Thus, witness Williamson concluded that an incentive for

non-specialty LED bulbs should no longer be needed after Vintage 2020 and that allowing the incentives to be offered at least one year beyond the January 2020 date should allow the Company time to evaluate any changes in the federal standards, as well as to determine how to handle its stock of non-specialty LED bulb. (Tr. at 217.)

NC Justice Center, et al., witness Bradley-Wright testified that DEP's DSM/EE portfolio is very cost-effective, demonstrating that DEP's customers are realizing real value from these programs. (Id. at 132.) As indicated by the UCT that the net benefits ratio grew considerably, increasing from 3.43 the year prior to 2018 to 3.69 in 2018. (Id. at 133.) He further noted that, while UCT scores had been increasing for the past three years, the TRC scores had been declining in each of the past two years, before rebounding to 2.86 in 2018. The TRC for all residential programs of 3.46 exceeded the Company's average. (Id.)

As a whole, the Commission concludes that DEP's portfolio of DSM and EE programs is cost-effective and eligible for inclusion in the Company's DSM/EE rider. The Commission makes specific findings and conclusions as to the individual programs that DEP and/or the Public Staff have identified as not being cost-effective or otherwise discussed below.

#### Residential Smart Saver EE Program

Company witness Evans addressed the continuing cost-effectiveness of DEP's Residential Smart Saver EE program. He testified that DEP filed proposed modifications to this program on December 18, 2018, with a projected TRC score of 1.35. Due to concerns expressed by the Public Staff, non-HVAC measures were removed and incorporated into a new program – Residential Energy Efficient Appliances and Devices. The remaining HVAC-related measures yielded an anticipated TRC score of 1.03, which represented the present value for 2019 through 2023. Witness Evans stated that the 0.97 TRC score for 2020 was a significant increase from the previous year's estimate for 2019 of 0.57. This increase, he reported, resulted from recognizing lower incremental customer costs; streamlining and reducing the costs of trade ally participation; reducing administrative costs; recognizing a three-year transition to referral only channels; and introducing an online channel as used by DEC's Residential Smart Saver EE program. (Tr. at 55.) Witness Evans acknowledged that the Residential Smart Saver is not presently cost-effective, but he asserted that DEP believes that the 1.03 TRC is obtainable. He further stated that because 2020 is only the second year in the five years used in the Company's forecast, and given the significant increase in the projected TRC results from 2019 (0.57) to 2020 (0.97), the forecasted 1.03 may be understated. Witness Evans cautioned that a suspension of this program would erode DEP's trust and engagement with HVAC contractors, which would adversely impact the Company's ability to garner trade ally support in the future. (Id. at 56.)

Public Staff witness Williamson testified that recently-approved modifications had increased the Residential Smart Saver program's projected cost-effectiveness. He noted, however, that the program remains not cost-effective, as it has since 2013. Witness

Williamson stated that the Public Staff continues to be skeptical that the program can be cost-effective. (Id. at 218.)

#### Non-Residential Smart \$aver Incentive Program

With respect to the Non-Residential Smart \$aver Incentive program, witness Evans testified that its forecasted TRC score was 0.99 and its forecasted UCT score was 4.05 for 2020. Witness Evans described the program as an important component of the Company's non-residential portfolio of programs and predicted that its cost-effectiveness would improve as participation increases. He further explained that this program encompasses energy saving measures related to new technologies, unknown building conditions, and system constraints, as well as uncertain operating circumstances, occupancy, or production schedules. In these cases, energy savings are difficult to project accurately. Witness Evans testified, however, that the Company believed that the program could impact a customer's decision to opt into the EE portion of the rider; if the program were no longer offered as part of the Company's EE portfolio, additional eligible customers might opt out as a result. (Tr. at 56-57.) Witness Evans stated that the Company believes that the program's cost-effectiveness will continue to improve as more customers become familiar with it and participation increases. (Id. at 57.)

#### MyHER Program

Witness Evans explained that in the November 29, 2018 Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice in Docket No. E-2, Sub 1174 (Sub 1174), the Commission, among other things, ordered DEP to address the continuing cost-effectiveness of the residential MyHER program, and, if it is not cost-effective, provide details of plans to modify or close the program. In response to the Commission's direction in the previous DEP DSM/EE docket, witness Evans testified that the residential MyHER program's TRC score was estimated to be 1.01 during the rate period. Therefore, witness Evans concluded that the program was cost-effective. (Tr. 53-54, 57.)

#### DSDR

Although Public Staff witness Williamson testified that he did not have any concerns about the performance of the Company's DSDR program, which was approved as an energy efficiency program on June 15, 2008, in Docket No. E-2, Sub 926, he noted some overlapping between the Company's Grid Improvement Plan (GIP) and DSDR. He explained that the GIP was created in response to the Company's perceived customer expectations and grid needs. In response to a data request from the Public Staff, the Company acknowledged that, while being handled separately on an accounting level, the Company's DSDR program and the GIP have two activities that overlap. Witness Williamson identified the first activity as the replacement of end-of-life Capacitor Bank Controls and associated replacement of the 2G/3G modems on DSDR line and substation devices with 4G modems and 5G modems. The second activity, he testified, is the replacement of end-of-life Core WAN and Edge communication equipment. Witness Williamson further stated that these two activities are further described in the Company's

2018 Smart Grid Technology Plan and included as enterprise wide programs in the GIP. (Tr. at 219.) The Company acknowledged that these two overlapping activities are important components of grid improvement, but the DSDR costs are not included in the cost of the GIP given that they are being reviewed and evaluated in separate forums, including the DSM/EE proceeding. Witness Williamson indicated that as the Company proceeded with the new operational standards of the GIP, the Public Staff would continue to observe and report on the degree of confluence of the GIP and DSDR. (Id. at 220; 243-44.)

### Conclusion

No party challenged inclusion of the above-listed programs in the Company's DSM/EE rider for cost recovery. Although the Public Staff expressed skepticism that the Residential Smart Saver Program would attain cost-effectiveness, it nonetheless acknowledged that the recently-approved modifications to the program had increased its projected cost-effectiveness. Neither the Public Staff nor any other party recommended that the Commission take any action with this or any of the other programs. The Commission, therefore, concludes that it will not direct any actions with respect to these programs, other than to direct the Public Staff to observe and report on the degree of confluence of the GIP and DSDR in the future.

### EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 6

The evidence for this finding of fact can be found in the testimony and exhibits of DEP witness Evans and the testimony of Public Staff witness Williamson.

DEP witness Evans testified regarding the EM&V process, activities, and results presented in this proceeding. (Tr. at 73-76.) He explained that the EMF component of the Company's DSM/EE rider incorporates actual customer participation and evaluated load impacts determined through EM&V and applied pursuant to the Revised Mechanism. (Id.) In this proceeding, the Company submitted, as exhibits to witness Evans' testimony, detailed completed EM&V reports or updates for the following programs:

- Demand Response Automation – 2017 (Evans Exhibit A)
- Residential New Construction – 2015 & 2016 (Evans Exhibit B)
- EnergyWise Home Demand Response Program – Winter 2017 & 2018 (Evans Exhibit C)
- Small Business Energy Saver Program –2016 (Evans Exhibit D)
- Residential Energy Assessment – 2016 & 2017 (Evans Exhibit E)
- EnergyWise for Business Program – 2016 (Evans Exhibit F)
- Non-Residential Smart Saver EE Products and Assessment (Custom) – 2016 & 2017 (Evans Exhibit G)
- EnergyWise Home Demand Response Program – Summer 2018 (Evans Exhibit H)
- EE Education Program – 2017 & 2018 (Evans Exhibit I)

In his testimony, Public Staff witness Williamson testified that with respect to program vintages for which EM&V reports were filed in this proceeding, he did not recommend any adjustment to the impacts at this time. (Tr. at 226.) He also testified that he had confirmed through sampling that the changes to program impacts and participation were appropriately incorporated into the rider calculations for each DSM and EE program, as well as the actual participation and impacts calculated with the EM&V data. (Id. at 226-27.) Witness Williamson stated his belief that DEP was appropriately incorporating the results of EM&V into the DSM/EE rider calculations consistent with Commission orders and the Mechanism. (Id. at 227)

In addition, witness Williamson stated that DEP had adopted his EM&V-related recommendations made in Sub 1174, to the extent these recommendations were applicable to the EM&V reports filed in this proceeding. (Id. at 224-25.) Witness Williamson understood that DEP's EM&V evaluator intended to incorporate these recommendations in future EM&V reports. (Id. at 225.)

Witness Williamson also testified that the Commission had approved his recommendations concerning the content of future EM&V studies for the Company's EE Lighting Program, as follows:

1. The program evaluator should include the basis for the selected weighting methodology (weightings based on bulb sales, measure savings, or other metric) when assessing program savings. The program evaluator should also indicate what other weighting methodologies were considered and why they were rejected, and why the selected methodology is preferable;
2. The program evaluator should provide further clarity into the sales of incentivized bulbs at dollar/discount stores to determine the income levels of customers purchasing these bulbs; and
3. The program evaluator should update its study on the percentage of bulb sales to residential and non-residential customers. (Id. at 224-25.)

Witness Williamson testified that the DEP had indicated it would incorporate these recommendations into future EM&V of the programs. (Id. at 225.)

Witness Williamson also recounted that in the Sub 1174 proceeding, the Public Staff had recommended that the EM&V report for the MyHER program be conditionally accepted until the Public Staff completed its review. Witness Williamson reported that the Public Staff had completed its review and that, based on discussions with the Company, the Public Staff's EM&V consultant, and the EM&V report evaluator Nexant, the Public Staff concluded that the report should be considered complete. Witness Williamson asserted that the Public Staff will continue to work with the Company and the EM&V consultants to ensure that the necessary rigor is maintained for future EM&V efforts of the MyHER program, especially in light of the significant contribution it makes to the Company's portfolio. (Tr. at 227.)

In addition, with respect to the Company's EM&V Report activities, witness Williamson testified that while the Company's third-party evaluator, Navigant, was preparing an EM&V report for the Multi-Family EE program, it found an error in the assumptions applied to the pipe wrap measure that were made in the previous report that the Company filed as Exhibit B in Docket No. E-2, Sub 1130. (Id. at 228.) Witness Williamson reported that the Public Staff incorporated that erroneous assumption into one of its recommendations in that docket, which compounded the error's impact. Ultimately, the original error resulted in a calculation of savings that were approximately four times the actual savings. (Id. at 228-20.) Witness Williamson stated that Navigant and the Company will incorporate this updated impact assumption in the next EM&V report for this program, which will apply to both DEC and DEP. (Id. at 229.) Witness Williamson further stated that the Company had applied a decrement of \$300,153 to the EMF, which is the cumulative dollar impact for this program measure back to June 28, 2017, consistent with the terms of the Mechanism regarding the application of subsequent EM&V efforts. Witness Williamson did not believe a similar issue was likely to reoccur due to how the Company measures the units of most of its measures. (Id. at 229-30.)

Except for the Public Staff's testimony pertaining to the future EM&V report for the Multi-Family EE program, no party contested the EM&V information submitted by the Company. The Commission therefore finds that: (1) the EM&V reports filed as Evans Exhibits A, B, C, D, E, F, G, H, and I are acceptable for purposes of this proceeding and should be considered complete for purposes of calculating program impacts.

Based upon the testimony and evidence cited above, the Commission finds the net energy and capacity savings derived from the EM&V to be reasonable and appropriate. Further, the Commission concludes that DEP is appropriately incorporating the results of EM&V into the DSM/EE rider calculations.

#### EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 7

The evidence for this finding of fact can be found in the testimony of DEP witness Evans.

The Commission's Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice, issued November 16, 2015, in Docket No. E-2, Sub 1070, directed DEP to file all changes in annual ratios of allocations between non-DSDR and DSDR equipment, report the degree of change in its annual DSM/EE rider filing, and provide such changes to the Public Staff as they become available. Witness Evans informed the Commission that the Company conducted a review of 2017 units during the summer of 2018 and determined that the capacitor allocation ratio should be increased from 20.36 to 21.08 percent, and the regulator allocation ratio should be increased from 77.60 to 78.50 percent. Witness Evans indicated that the 2018 units would be reviewed this summer, and any further changes would be communicated to the Public Staff and implemented on January 1, 2020. (Tr. at 65.) The Commission concludes that DEP should continue to file reports of changes to its allocations between non-DSDR and DSDR

equipment in future proceedings and provide the Public Staff with information on any changes to the allocation factor as they become available.

#### EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 8-14

The evidence for these findings of fact can be found in the testimony and exhibits of DEP witnesses Miller and Evans and the testimony of Public Staff witness Maness.

In her direct testimony and exhibits, DEP witness Miller calculated proposed North Carolina retail NLR in the amount of \$29,302,640 and a PPI in the amount of \$26,119,369 for the EMF component of the total DSM/EE rider, and North Carolina retail NLR of \$27,919,544 and a PPI of \$24,434,366 for the forward-looking, or prospective component of the total rider. Company witness Miller indicated that because of additional analysis performed by DEP and discussions with the Public Staff, the Company adjusted its PPI amounts in the Supplemental Filing. The supplemental exhibits of witness Miller included in the Supplemental Filing indicated that the EMF PPI amounts were adjusted to \$26,099,254, and the prospective PPI estimate was adjusted to \$24,472,099.

In her exhibits filed as part of the Supplemental Filing, DEP witness Miller calculated DEP's total North Carolina retail adjusted test period costs and utility incentives, consisting of its amortized DSM/EE O&M costs, capital costs, taxes, amortized incremental A&G costs, carrying charges, NLR, and PPI to be \$167,818,449. Witness Miller's testimony and exhibits also indicated that the amount of test period DSM/EE rider revenues and miscellaneous adjustments to take into consideration in determining the test period DSM/EE under- or over-recovery is \$166,957,293. Therefore, the aggregate DSM/EE under-recovery recommended by DEP for purposes of this proceeding is \$861,157, as reflected in the Supplemental Filing.

Witness Miller also calculated DEP's estimate of its North Carolina retail DSM/EE program rate period amounts, consisting of its amortized O&M costs, depreciation, capital costs, taxes, amortized incremental A&G costs, carrying charges, NLR, and PPI, as \$164,795,570.

According to the revised exhibits of DEP witness Miller as filed in the Supplemental Filing, after assignment or allocation to customer classes in accordance with N.C. Gen. Stat. § 62-133.9, Commission Rule R8-69, and the Commission Orders in Docket No. E-2, Sub 931, the revenue requirements for each class, excluding NCRF, are as follows:



DSM/EE PROSPECTIVE COMPONENT:

Residential	\$97,771,978
General Service EE	60,076,576
General Service DSM	6,645,218
Lighting	<u>301,798</u>
Total	<u>\$164,795,570</u>

DSM/EE EMF:

Residential	\$(9,387,664)
General Service EE	11,626,883
General Service DSM	(1,257,705)
Lighting	<u>(120,357)</u>
Total	<u>\$861,157</u>

Witness Miller's exhibits also set forth the North Carolina retail class level kWh sales that DEP believes are appropriate and reasonable for use in determining the DSM/EE and DSM/EE EMF billing factors in this proceeding. She adjusted the kWh sales to exclude estimated sales to customers who have opted out of participation in DEP's DSM/EE programs. The adjusted sales amounts are as follows: Residential class – 16,011,833,010 kWh; General Service EE class – 9,657,233,917 kWh; General Service DSM class – 9,555,153,028; and Lighting class – 360,095,612 kWh.

According to her revised exhibits filed as part of the Supplemental Filing, witness Miller calculated the DSM/EE billing factors without NCRF as follows:

DSM/EE PROSPECTIVE BILLING FACTORS (cents/kWh):

Residential	0.611
General Service EE	0.622
General Service DSM	0.070
Lighting	0.084

DSM/EE EMF BILLING FACTORS (cents/kWh):

Residential	(0.058)
General Service EE	0.120
General Service DSM	(0.013)
Lighting	(0.033)

Including the NCRF, the factors calculated by witness Miller are as follows:

DSM/EE PROSPECTIVE BILLING FACTORS (cents/kWh):

Residential	0.612
General Service EE	0.623
General Service DSM	0.070
Lighting	0.084

DSM/EE EMF BILLING FACTORS (cents/kWh):

Residential	(0.058)
General Service EE	0.120
General Service DSM	(0.013)
Lighting	(0.033)

Public Staff witness Maness indicated that the focus of the Public Staff's investigation of DEP's filing in this proceeding was whether the proposed DSM/EE rider was calculated in accordance with the Mechanism and otherwise adhered to sound ratemaking concepts and principles. (Tr. at 196-97.) The Public Staff's investigation included a review of the Company's filing and relevant prior Commission proceedings and orders, and workpapers and source documentation used by the Company to develop the proposed billing rates (including the selection and review of a sample of source documentation for test period costs included by the Company for recovery). (Id. at 197-98.)

Excepting the items discussed below, witness Maness testified that he believed that the Company has calculated its proposed prospective DSM/EE and DSM/EE EMF billing factors in a manner consistent with N.C. Gen. Stat. § 62-133.9, Commission Rule R8-69, and the Mechanism. (Id. at 198.)

Other Adjustment to Rate Calculations

Witness Maness testified that the Company intended to revise its DSM/EE billing factor calculations with respect to its EM&V and to DSDR in a supplemental filing prior to the evidentiary hearing in this matter. (Tr. at 199.)

In her Supplemental Testimony, witness Miller testified that during the Company's review of its DSM/EE filing in this docket, it discovered that, although the EM&V results received in 2018 for the EnergyWise Program had been appropriately applied prospectively, beginning balance participation levels were not correct, thereby misstating all participation levels. In addition, the Company also discovered that the EnergyWise for Business program included an error in the avoided cost calculation. Accordingly, witness Miller testified that the Company updated Vintages 2017 and Vintage 2018 to reflect the revised kilowatt ("kW") savings included in both EM&V reports. (Id. at 35.)

Witness Miller informed the Commission that in Sub 1145, the Public Staff and DEP had agreed to reduce the avoided cost savings included in rates by \$2,100,000, and

both parties settled on a methodology to allocate that reduction among customer classes for Vintage 2018. The \$2.1 million was allocated based on a weighted-average PPI basis, so the adjustment to kW savings attributed to the EnergyWise and EnergyWise for Business programs, as discussed above, impacted the allocation of that \$2.1 million among customer classes. Witness Miller stated that, therefore, the Company had re-allocated the \$2.1 million reduction in Vintage 2018 avoided costs to reflect the updated kW savings attributed to the EnergyWise and EnergyWise for Business programs in the Supplemental Filing. She further explained that the change in PPI for these vintages also impacted the future amortization of PPI; therefore, Vintage 2020 was also updated to reflect the revised amortization amounts. The total of these adjustments results in:

- a reduction in PPI for residential customers in the amount of (\$84,065) for Vintage Year 2017;
- a reduction in PPI for non-residential DSM customers in the amount of (\$177,930) for Vintage 2018;
- an increase in PPI for non-residential EE customers in the amount of \$62,331 for Vintage 2018;
- an increase in PPI for residential customers in the amount of \$95,482 for Vintage 2018;
- a reduction in PPI for non-residential DSM customers in the amount of (\$31,049) for Vintage 2020;
- an increase in PPI for non-residential EE customers in the amount of \$62,331 for Vintage 2020; and
- an increase in PPI for residential customers in the amount of \$6,450 for Vintage 2020.

(Id. at 36.)

In addition, witness Miller described in more detail the adjustment to the DSDR depreciation expense. Witness Miller explained that she recommended adjusting the intangible depreciation expense recognized as part of DSDR program costs because the Company discovered that the calculation of depreciation expense for DSDR intangible assets used formulas that multiply gross plant balances by the most recently approved depreciation rates. She noted, however, that these DSDR intangible assets have a useful life of only five years, and the calculation continued to include gross plant that had been fully depreciated into the calculation of DSDR depreciation expense. The first DSDR intangible plant assets were placed in service in 2010; therefore, DSDR depreciation expense was overstated beginning with test period 2015. Witness Miller reported that the Company recalculated the appropriate depreciation expense for Vintage Years 2015, 2016, 2017, 2018, and 2020.<sup>1</sup> DEP also recalculated all other impacted expense items, including insurance expense, return on capital, and carrying costs. (Id. at 35-37.) Witness Miller added that partially offsetting this adjustment, however, was the amount of EE Rider

---

<sup>1</sup> Vintage 2019 will be trued up as part of the 2019 test period filed in 2020 using the same methodology used to calculate the impact on Vintage 2015, 2016, 2017, 2018, and 2020.

revenue that was removed from the 2017 test period of the most recent rate case. The Company recalculated the EE-related pro forma adjustment included with that rate case filing to revise DSDR-related collections to reflect the adjusted depreciation expense as well as the offsetting change in rate base. Witness Miller testified that this adjustment impacts rates in effect from March 18, 2018, forward as shown by her Supplemental Miller Exhibit 2, page 6 Line 35, in the amount of \$432,382 for Vintage 2018 and for Vintage 2020 as shown on Supplemental Miller Exhibit 2, page 3 Line 37, in the amount of \$494,150. (Id. at 38.)

Witness Miller further testified that the final adjustment the Company made because of the revisions to DSDR depreciation expense was to recalculate the interest due to customers. She noted that all interest related to prior period adjustments flows through the current vintage; therefore, this adjustment is shown for Vintage 2018 on Supplemental Miller Exhibit 3, pages 1, 2, and 4.

The following table summarizes the dollar impact of the DSDR program updates for each vintage for each class of customer.

	Residential	Non-Residential	Lighting
2015 DSDR	\$(541,569)	\$(361,733)	\$(13,423)
2016 DSDR	(508,073)	(328,056)	(12,002)
2017 DSDR	(980,245)	(613,595)	(22,498)
2018			
DSDR	(2,512,501)	(1,515,367)	(56,504)
Pro forma Adj.	265,979	160,420	5,982
Interest	(640,964)	(275,063)	(14,725)
<u>2020</u>			
DSDR	(2,310,065)	(1,393,272)	(51,952)
Pro forma Adj.	303,976	183,338	6,836

In its subsequent letter to the Commission, the Public Staff reported that these adjustments in DEP's Supplemental Testimony were reasonable for purposes of this proceeding. (Id. at 8.)

Witness Maness concluded that other than these issues, the Public Staff found no errors or other issues necessitating an adjustment to DEP's proposed billing factors. (Id. at 199.) As discussed above, Public Staff witness Williamson filed testimony in this proceeding discussing several EM&V-related topics and issues related to the Company's filing. Aside from the items discussed above, none of these topics and issues necessitates an adjustment to the Company's billing factor calculations. (Id.) Finally, witness Maness testified that the Public Staff's review of the Company's 2018 DSM/EE program costs was nearing completion. (Id. at 209.) He stated that when it was complete, the Public Staff would file the results with the Commission. (Id.)

Based on the foregoing, the adjustments are approved by the Commission. The Commission notes that on October 7, 2019, the Public Staff filed a letter with the Commission stating that its recommended DSM/EE EMF billing rates and forward-looking DSM/EE rates remain as set forth in the Supplemental Filing of DEP witness Miller. With respect to DEP's proposed adjustments reflected in the Supplemental Filing, the Commission additionally notes that no party opposed such recovery. The Commission finds that such proposed recovery is consistent with the Commission's orders in Docket Nos. E-2, Sub 931 and Sub 1145, and that PPI and DSDR adjustments are appropriate, with the prospective rate period costs subject to further review in DEP's future annual DSM/EE rider proceedings. The Commission concludes that DEP has complied with N.C. Gen. Stat. § 62-133.9, Commission Rule R8-69, and the Commission's orders in Docket Nos. E-2, Sub 931 and Sub 1145, regarding calculating costs and utility incentives for the test and rate periods at issue in this proceeding.

Therefore, the Commission concludes that for purposes of the DSM/EE EMF billing rates to be set in this proceeding, DEP's reasonable and prudent North Carolina retail test period costs and incentives, consisting of its amortized DSM/EE O&M costs, capital costs, taxes, amortized incremental A&G costs, carrying charges, NLR, and PPI, are \$167,818,449. The reasonable and appropriate amount of test period DSM/EE rider revenues and adjustments to take into consideration in determining the test year and prospective period DSM/EE under- or over-recovery is \$166,957,293. Therefore, the aggregate DSM/EE under-recovery for purposes of this proceeding is \$861,157.

For purposes of the DSM/EE rider to be set in this proceeding, and subject to review in DEP's future DSM/EE rider proceedings, the Commission concludes that DEP's reasonable and appropriate estimate of its North Carolina retail DSM/EE program rate period amounts, consisting of its amortized O&M costs, capital costs, taxes, amortized incremental A&G costs, carrying charges, NLR, and PPI, after incorporation of the adjustments reflected in the Company's Supplemental Filing, is \$164,795,570, which is the appropriate amount to use to develop the DSM/EE revenue requirement.

For the revenue requirements per class, the Commission concludes that after assignment or allocation to customer classes in accordance with N.C. Gen. Stat. § 62-133.9, Commission Rule R8-69, and the orders in Docket No. E-2, Sub 931, the revenue requirements for each class, excluding NCRF, are as follows:

DSM/EE PROSPECTIVE COMPONENT:

Residential	\$97,771,978
General Service EE	60,076,576
General Service DSM	6,645,218
Lighting	<u>301,798</u>
Total	<u>\$164,795,570</u>

DSM/EE EMF:

Residential	\$(9,387,664)
General Service EE	11,626,883
General Service DSM	(1,257,705)
Lighting	<u>(120,357)</u>
Total	<u>\$861,157</u>

Furthermore, the Commission finds that the appropriate and reasonable North Carolina retail class level kWh sales for use in determining the DSM/EE and DSM/EE EMF billing factors in this proceeding are as follows: Residential class – 16,011,833,010; General Service class EE – 9,657,233,917; General Service class DSM – 9,555,153,028; and Lighting class – 360,095,612.

On October 7, 2019, the Public Staff filed a letter indicating that it had completed its review of test year program costs and found no material differences in the program costs as filed by DEP and the supporting documentation. Further, the Public Staff stated that its recommended DSM/EE EMF and forward-looking billing rates remain the same as those proposed by DEP in the Supplemental Filing.

Based on the testimony and exhibits of witnesses Miller and Evans, the testimony and exhibits of witness Maness, and the entire record in this proceeding, the Commission finds and concludes that the forward-looking DSM/EE rates as proposed by DEP in the Supplemental Filing to be charged during the rate period for the Residential, General Service, and Lighting rate schedules are appropriate. The Commission further concludes that the DSM/EE EMF billing factors as proposed by DEP in the Supplemental Filing are appropriate.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 15-16

The evidence for these findings of fact can be found in the testimony of NC Justice Center, et al. witness Bradley-Wright, Public Staff witness Williamson, and DEP witness Evans.

Company witness Evans described the Collaborative's activities since the previous DSM/EE cost recovery proceeding. He noted that after the DSM/EE cost recovery rider proceedings in 2018, DEC and DEP modified the Collaborative meetings by combining them and holding them bi-monthly. (Tr. at 61.) He testified that the Collaborative had

discussed the recruitment and retention of opt-out eligible customers, because all members of the Collaborative, including DEP and DEC, recognize that commercial and industrial customers represent enormous energy efficiency potential. Witness Evans stated that the Company's program managers explained in detail to the Collaborative its comprehensive approach to customer education and engagement of these customers. Because of the current opt-out guidelines, the Collaborative agreed that the Companies' strategies are in line with members' recommendations. (Id. at 58-59) Additionally, witness Evans noted that the Collaborative agreed that the use of a technical resource manual (TRM) would increase the transparency, reliability, and consistency of EM&V across all utilities. Witness Evans noted, however, that creation and adoption of a TRM should include all utilities, cooperatives, and municipalities in North Carolina to be of greatest value. Thus, the Collaborative determined it was not the appropriate forum for further discussion of a statewide TRM. Witness Evans also relayed that the Collaborative had discussed obstacles to increasing participation in programs that promote deeper changes to a structure's energy consumption. He indicated that the Collaborative would monitor the Company's Smart \$aver programs, midstream successes, and retrofit opportunities through the semi-annual program reports and EM&V reviews. (Id. at 60-61.)

Witness Evans further reported that, in early 2019, the Collaborative determined it would focus on expanding and improving low-income programs and analyzing challenges and opportunities facing DSM/EE programs at a portfolio level. Witness Evans stated the Company's continuing commitment to allowing ample time to review information prior to meetings and to following up periodically to ensure that members' concerns are understood and addressed, and he reported that the Company had incorporated recommendations from the Collaborative on its Pay for Performance program and Neighborhood Energy Saver program. (Id. at 61-63.)

Witness Evans also testified that Vintage 2018 of the Company's DSM and EE programs produced over 414 million kWh of energy savings and over 404 megawatts of capacity savings, which produced net present value of avoided cost savings of close to \$249 million. (Id. at 71.) He stressed that opt-outs by qualifying industrial and commercial customers have had a significant impact on the Company's overall non-residential participation and the associated impacts on energy savings. (Id. at 76.) For Vintage 2018, 4,277 eligible customer accounts opted out of participating in DEP's non-residential portfolio of EE programs, and 4354 eligible customer accounts opted out of participating in the Company's non-residential DSM programs. (Id.) This represents an increase from 4,165 EE accounts and 4,099 DSM accounts in 2017. Witness Evans stated that to reduce opt-outs, the Company continues to evaluate and revise its non-residential portfolio of programs to accommodate new technologies, eliminate product gaps, remove barriers to participation, and make its programs more attractive to opt-out eligible customers. (Id. at 76.)

NC Justice Center, et al., witness Bradley-Wright testified that DEP delivers significant energy and cost savings to its customers and is the only other major utility in the Southeast to achieve savings above the national average. Nevertheless, he faulted

DEP for falling short of the one percent energy savings target it agreed to with SACE and other parties in the Duke-Progress merger. (Id. at 129.) Witness Bradley-Wright urged DEP to focus more on delivering longer-lived savings, instead of short-termed behavioral programs such as MyHER. Witness Bradley-Wright acknowledged that DEP appeared to recognize the importance of these issues and that it has been constructively engaged in addressing portfolio-level opportunities and challenges with stakeholders through ongoing work at the Collaborative. (Id.)

Witness Bradley-Wright indicated that DEP exceeded its own energy savings projections of 325 GWh by approximately 10% in 2018; however, in his opinion, DEP set its projections too low to reach the 1% of prior retail sales. Furthermore, witness Bradley-Wright noted, DEP projected a decline in energy savings in 2020, with a corresponding drop in annual sales. He determined that this projected drop in savings would indicate that DEP and the Collaborative should focus more attention on ramping up efforts to achieve savings, particularly from programs that provide deeper, long-lasting savings. (Id. at 132.)

Witness Bradley-Wright agreed with Company witness Evans that non-residential opt outs have a large effect on the percentage of DEP's energy savings. He stated that without opt-outs DEP's savings as a percentage of 2018 sales would be 1.19%, compared to 0.79% overall. He indicated that if it were not for the opt-outs, DEP could meet the 1% savings target. (Id. at 135.)

With respect to low-income efficiency savings, witness Bradley-Wright testified that DEP's Neighborhood Energy Saver program increased its savings slightly from 2018. He noted that the Company also obtained approval for a Pay-for-Performance program, but it did not start until 2019, and he characterized the scale as very small. He further opined that DEP should offer an Income Qualified Weatherization program like DEC does. Witness Bradley-Wright observed that issues exist with respect to serving low-income customers, including equity concerns and the need for program designs that match their financial and housing circumstances (such as programs for renters and multi-family and manufactured homes). He recommended that the Company engage the Collaborative to work to expand and enhance the deployment of low-income efficiency programs. (Id. at 136-37.)

Witness Bradley-Wright also described the strengths of the Collaborative. He stated that the Collaborative provided an alternative venue to formal proceedings at the Commission for solving issues on an ongoing basis, and he noted that the Collaborative had improved in developing new program ideas, modifying existing programs, and impacting the overall efficiency savings of DEP's portfolio of programs. Specifically, he listed several opportunities to increase portfolio benefits that the Collaborative had explored, including: on-bill financing, combined heat and power, development of a TRM; strategies for addressing opt-outs; multi-family efficiency programs; maximization of cross-program marketing; non-energy benefits; and manufactured housing. He stated, however, that despite the extensive time, energy, and resources provided by the Company and participating stakeholders, the Company had not initiated any of these



efforts. Witness Bradley-Wright concluded, however, that DEP and Collaborative stakeholders had given renewed attention to Commission-approved guidance on how the meetings should be run and had continued to invest in building relationships. (Id. 139-40.).

Witness Bradley-Wright suggested that the Collaborative continue to discuss the recommendations made by Chris Neme on behalf of the NC Justice Center, et al., in Sub 1174, which he adopted. (Id. at 141.)<sup>2</sup> He testified that he had worked closely with the Company to implement positive changes that improve the work of the Collaborative, including: more frequent in-person meetings; shared agenda-setting; higher levels of stakeholder involvement; an emphasis on developing program enhancement recommendations; group decision-making; more communications; more research and project work; active focus on reaching and exceeding the 1% annual savings target and increasing energy and bill savings for low-income customers. He noted that the Company's willingness to accommodate these changes has been encouraging. (Id. 142-44.) He asserted, however, that challenges remained to achieving higher levels of effectiveness at the Collaborative. He indicated that the stakeholders in the Collaborative do not always have the time to review DEP's plans and work through the potential issues and develop practical recommendations, and that the Company typically provided its plans for programs after the Company ideas are mostly fully formed. Witness Bradley-Wright affirmed that the Company was engaging in good faith to move the Collaborative in the right direction and to receive input from stakeholders. (Id. 145-46.) Nonetheless, he noted that the Company had sought approval from the Commission prior to engaging the Collaborative in the development of the Pay for Performance program, did not accept the Collaborative's recommendations on the program prior to its filing, and provided only a day to the Collaborative to give feedback on proposed modifications to another program. (Id. at 147.)

As for expanding low-income efficiency programs, witness Bradley-Wright commended Duke for its low-income energy efficiency achievement but said more is needed going forward. He outlined several broad strategies, such as expanding the budget allocations for programs targeting low-income customers; refining and expanding existing program offerings, such as Neighborhood Energy Saver; and prioritizing increasing low-income customer impact through non-income qualified programs (Id. at 152-53.) Witness Bradley-Wright also discussed building on the success of DEC's

---

<sup>2</sup> These topics for discussion include: (a) ways to improve participation in the Company's Residential Smart Saver EE Program, such as establishing a midstream channel for promoting measures, increasing incentives, and enhancing marketing; (b) greater promotion of whole-building retrofits, with an initial focus on targeting low-income communities; (c) building on DEP's recent successes in promoting measures in the midstream channel of its Non-Residential Prescriptive Rebate measure; (d) the potential to reduce the number of customers who opt out by educating customers who are eligible to opt out on available programs and/or improving program design to make programs more attractive to these customers; (e) the value of a TRM; (f) the propriety of assuming a one-year life for savings from the MyHER; (g) the impact of EISA on the Company's savings assumptions for residential light bulbs; and (h) the appropriateness of including non-electric benefits in cost-effectiveness analyses. Order Approving DSM/EE Rider and Requiring Filing of Customer Notice, Docket No. E-2, Sub 1174 (Nov. 29, 2018) at 37-38.

Income-Qualified Weatherization program by offering the program to DEP low-income customers as well. (Id. at 152-53.)

Witness Bradley-Wright also asserted that this Commission could look to lessons from other stakeholder groups in other jurisdictions, such as Arkansas. In that Collaborative, the Arkansas Public Service Commission plays a significant role, and the Collaborative has considered setting three-year energy savings targets; coordinating gas and electric efficiency programs; developing low-income programs; and adopting standard annual reporting protocols. Witness Bradley-Wright reported that an independent facilitator supported this work. (Id. at 154-55.) He acknowledged, however, that if the North Carolina Collaborative were to adopt an independent administrator, it would add to the costs run through the DSM and EE rider that are charged to ratepayers. (Id. at 185.)

Witness Bradley-Wright requested that the Commission observe the work of the Collaborative to determine whether significant progress had been made and seek comment from Collaborative participants to see that progress has been made. He further suggested that the Collaborative address the projected decline in savings, and that the Company strive to meet the one percent energy savings target and maintain and grow those savings going forward. (Id. at 156.) Finally, he recommended that the Company and the Collaborative regularly track the impact of all of its energy efficiency programs on low-income customers to incorporate useful insights into future strategies. (Id. at 156.)

DEP witness Evans responded to witness Bradley-Wright's issues concerning the Collaborative. He explained that witness Bradley-Wright was not testifying on behalf of the Collaborative, because the Collaborative was created as an advisory board and participants, including witness Bradley-Wright, may neither testify nor speak on behalf of the Collaborative. (Id. at 86.) Witness Evans testified that the one percent savings goal was important to the Company, but that the goal was agreed to in a settlement in the Duke/Progress merger proceeding presented to the South Carolina Public Service Commission. As part of that agreement, with a group referred to collectively as the Environmental Intervenors, DEP agreed to establish a one percent annual EE savings target and a related seven percent cumulative savings target for the five-year period extending from 2014 to 2018. (Id. at 83.) Upon cross-examination, witness Evans confirmed that the settlement agreement including the target was approved by the South Carolina Public Service Commission. (Id. at 102.) He pointed out that the settlement agreement was never presented to, or approved by, the North Carolina Utilities Commission. (Id. at 102.) Witness Evans further noted that these goals were aspirational, and that there were no penalties for failing to achieve them. Witness Evans acknowledged that the Company had not met this target, but explained that circumstances beyond the Company's control had challenged this effort. He identified several examples. First, he discussed the impact of the almost 54 percent of the Company's general service customers opting out of the DSM/EE rider. Next, he noted that declining avoided costs have exacerbated the Company's ability to propose incentive measures cost-effectively. Finally, he explained that as building codes and efficiency

standards increase, opportunities for cost-effective incentives to be offered to customers to save energy decrease. (Id. at 84-85.)

DEP witness Evans generally agreed with N.C. Justice Center, et al. witness Bradley-Wright's support for deployment of an income-qualified weatherization program comparable to DEC's current program, but with reservation. He noted that DEP has launched the Weatherization Pay for Performance program that will operate three years in Buncombe County. The program launched in 2019 and has two more years before measurement and verification will occur to inform next steps. (Id. at 85.) Additionally, witness Evans reported that the Company is pursuing and has discussed with the Collaborative an expansion of the Neighborhood Energy Saver program to include weatherization measures. In response to questions from Commissioner Brown-Bland, witness Evans recounted that the Company had brought Neighborhood Energy Saver modifications before the Collaborative twice already to solicit as much input from the Collaborative as possible. (Id. at 110.) He stated that the Company intends to file these proposed modifications to the program to be effective in early 2020. (Id. at 85.)

Witness Evans did not agree, however, with witness Bradley-Wright's recommendation to revise the Company's annual rider filing to reflect a format like that used in Arkansas. Witness Evans remarked on the already voluminous filing (more than 850 pages) that DEP files to comply with the Commission's well-considered Rule R8-68. Moreover, witness Evans stated that an interested party to the proceeding may submit data requests to obtain relevant information not included in the filing and may make that information part of the record. Witness Evans offered, however, that although the Company does not believe that the requested materials are necessary for inclusion in the accepted rider filing, the Company is in the process of preparing materials for the Collaborative in a format consistent with witness Bradley-Wright's recommendation. (Id. at 86.)

Witness Evans also disagreed with witness Bradley-Wright's contentions that the Collaborative's contributions have not been implemented or have not resulted in increased program impacts. (Id. at 108.) He explained that members of the Collaborative may present programs, measures, or modifications to programs or measures through a Program Modification Template. (Id. at 104-07.) Additionally, witness Evans explained that the Collaborative had examined on-bill financing, combined heat and power, the development of a TRM, strategies for addressing commercial and industrial opt-outs, the inclusion of non-energy benefits, and recommendations for modifying the Pay for Performance program. With respect to the on-bill financing, witness Evans testified that the working group determined that it was not cost-effective to modify the Company's existing Customer Information Billing System (CIBS) to accommodate on-bill financing at this time; however, it was agreed that when a new CIBS is in place in 2022, revisiting on-bill financing would make sense. With combined heat and power (CHP), the Company has modified its program tariffs to incentivize both Top and Bottom Cycling CHP, consistent with the outcome of the Collaborative's discussions. (Id. at 87.) Furthermore, witness Evans testified that the Collaborative had discussed the TRM several times, but it did not reach a consensus as to benefits. With respect to non-energy benefits, the

Collaborative has discussed their use in program cost-effectiveness studies; however, no definitive source for an appropriate quantification of non-energy benefits for cost-effectiveness was identified. (Id. at 88.) Nevertheless, the Company is investigating the potential for non-energy benefits to be considered in determination of TRC test results in the context of the Mechanism. Witness Evans also disputed witness Bradley-Wright's assertion that the Company had not taken the Collaborative's recommendations into account in its application for approval of the Pay for Performance program. Instead, witness Evans explained that the Company had begun to implement the recommendations as the program matures and becomes capable of incorporating them. (Id. at 88-89, 108.) In response to a question from Commissioner Brown-Bland, witness Evans additionally indicated that DEP had incorporated a change to the Pay for Performance program that was suggested by the Collaborative's feedback. (Id. at 111.)

Public Staff witness Williamson also testified about the operation of the Collaborative. Witness Williamson has been participating in the Collaborative since 2015. He stated that the number of participants in the Collaborative had increased since then, as well as meeting frequency. Witness Williamson noted that, at first, the Collaborative met four times a year, while it currently is meeting every other month. (Id. at 236-37.) Witness Williamson testified that the Collaborative had improved over these years as the Company now receives input from participants on potential improvements and provides additional data. Witness Williamson relayed that Company witness Evans sets up phone calls between Collaborative meetings to get a better understanding of the participants' positions. (Id. at 238.) Witness Williamson did not take issue with either witness Bradley-Wright's testimony or witness Evan's testimony, but he noted that the time constraints mentioned by witness Bradley-Wright were often a part of normal business operation. (Id. at 239.)

In their Post-Hearing Brief, NC Justice Center, et al., stated that overall they support DEP's application because DEP remains a regional leader in energy efficiency. In addition, they reiterated the main points made by witness Bradley-Wright in his testimony, as summarized above. Moreover, NC Justice Center, et al., emphasized the importance of providing EE savings for low-income customers. They made four recommendations in this regard.

1. Expand budget allocations for low-income EE programs.
2. Refine and expand existing low-income EE programs.
3. Adopt new programs aimed at meeting the EE needs of low-income customers.
4. Prioritize increasing low-income customer impact as an aspect of all of its EE programs.

In addition, in their brief NC Justice Center, et al., stated that there have been great strides in improving the work of the DSM/EE Collaborative, and noted several positive changes that DEP, DEC and stakeholders have made to improve the workings of the

Collaborative. They stated that the Collaborative is useful because detailed EE program implementation issues are best addressed through joint problem solving and collaboration, rather than contested proceedings before the Commission, and that many EE issues do not fit effectively into existing formal docketed proceedings. However, they also discussed several perceived shortcomings of the Collaborative, as witness Bradley-Wright had done in his testimony, and recommended the following actions by the Commission.

1. Direct DEP to further engage with the Collaborative during the development of new programs and modification of existing programs in a timely, structured manner that permits the stakeholders to provide meaningful recommendations.
2. Direct DEP to continue collaborative working group discussions for low-income, multifamily, manufactured housing and non-residential opt outs.
3. With regard to the portfolio-level assessment of opportunities and challenges, order the Collaborative to address the projected decline in annual savings from DEP forecasts for 2020, and develop a plan to maintain and grow current savings levels.
4. Closely monitor the work of the Collaborative over the next year, invite input from stakeholders who participate in the Collaborative to report back to the Commission in 2020 on progress, and approve development of a standard annual reporting protocol for DEP's and DEC's DSM/EE rider filings along the lines of the reporting used in Arkansas.
5. Direct DEP to implement an Income-Qualified Weatherization program comparable to that which has been implemented by DEC.

Based on the foregoing, the Commission concludes that DEP's DSM/EE program is achieving energy savings for its North Carolina customers, consistent with the goals of North Carolina Gen. Stat. § 62-133.8. The Commission notes that the one percent annual energy savings target discussed by witness Bradley-Wright is only an aspirational target for DEP, as this one percent annual target was established in a South Carolina proceeding and was not approved by this Commission. Even so, the Commission further notes that circumstances, such as the opt-outs by General Service Customers, clearly affect DEP's ability to obtain this aspirational one percent annual energy savings.

Additionally, the Commission believes that the Collaborative is the appropriate forum for consideration of the issues raised by witness Bradley-Wright as outlined herein. The testimony of all the witnesses shows that the Collaborative continues to improve and evolve, and the Commission directs that these efforts, some of which were initiated after the 2018 DSM/EE rider proceeding, continue. The combined (DEC and DEP) Collaborative should continue to meet every two months, and the Company should continue to solicit input from the Collaborative, while providing as much time as possible

for information sharing. The Collaborative should also consider the issues raised by Public Staff witness Williamson regarding the impact of upcoming lighting standards.

With regard to the five recommendations of NC Justice Center, et al., numbers 1 through 4 were made jointly by SACE and NC Justice Center in DEC's DSM/EE rider proceeding, Docket No. E-7, Sub 1190, and were addressed by the Commission in its Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice (DEC Order). The Commission will not repeat its full discussion on these recommendations in this order, but incorporates that discussion herein and reaches the same conclusions, which it summarizes as follows.

1. DEP and the Collaborative participants should continue working to ensure that all interested persons have a reasonable and timely opportunity to contribute ideas for consideration by the Collaborative, especially with respect to proposals for new programs or modifications to existing programs.
2. The Collaborative should continue to place emphasis on developing EE programs to assist low-income customers in saving energy, and in developing EE programs that target savings in new construction, and especially in multi-family housing and manufactured housing.
3. The forecasted decline in DEP's DSM/EE savings in 2020 is a matter of concern. Consequently, the Collaborative should examine the reasons for the forecasted decline, and explore options for preventing or correcting a decline in future DSM/EE savings.
4. The Collaborative should study the development of a standard annual reporting protocol. In addition, the Commission concludes that it would be helpful for DEP to include in its annual DSM/EE application a table that shows DEP's test period DSM/EE costs and savings, and that shows the same information for the previous five years.

With respect to recommendation number five by NC Justice Center, et al., DEP witness Evans testified on rebuttal that DEP is pursuing and has discussed with the Collaborative an expansion of the Neighborhood Energy Saver program to include weatherization measures, and that the Company intends to file proposed modifications to the program to be effective in early 2020. In the event that the modifications filed by DEP in 2020 to the Neighborhood Energy Saver program do not satisfy the weatherization program changes sought by NC Justice Center, et al., DEP should continue to discuss with the Collaborative the adoption of an Income-Qualified Weatherization program comparable to that implemented by DEC.

Based on the foregoing, the Commission directs DEP and the Collaborative participants to give particular focus to the five directives stated above. Further, DEP

should provide a summary of the progress made in satisfying the directives in the Company's 2020 DSM/EE rider filing.

IT IS, THEREFORE, ORDERED as follows:

1. That the appropriate DSM/EE EMF billing factors, excluding NCRF, for the Residential, General Service, and Lighting rate classes are: (0.058) cents per kWh for the Residential class; 0.120 cents per kWh for the EE component of General Service classes; (0.013) cents per kWh for the DSM component of General Service classes; and (0.033) cents per kWh for the Lighting class. These DSM/EE EMF billing factors do not change when the NCRF is included.

2. That the appropriate forward-looking DSM/EE rates to be charged by DEP during the rate period for the Residential, General Service, and Lighting rate classes (excluding NCRF) are: 0.611 cents per kWh for the Residential class; 0.622 cents per kWh for the EE component of General Service classes; 0.070 cents per kWh for the DSM component of General Service classes; and 0.084 cents per kWh for the Lighting class. The appropriate forward-looking DSM/EE rates to be charged by DEP during the rate period, including NCRF, are increments of: 0.612 cents per kWh for the Residential class; 0.623 cents per kWh for the EE component of the General Service classes; 0.070 cents per kWh for the DSM component of the General Service classes; and 0.084 cents per kWh for the Lighting class.

3. That the appropriate total DSM/EE annual riders including the DSM/EE rate and the DSM/EE EMF rate (including NCRF) for the Residential, General Service, and Lighting rate classes are increments of 0.554 cents per kWh for the Residential class, 0.743 cents per kWh for the EE portion of the General Service classes, 0.057 cents per kWh for the DSM portion of the General Service classes, and 0.051 cents per kWh for the Lighting class.

4. That DEP shall file appropriate rate schedules and riders with the Commission to implement these adjustments as soon as practicable. Such rates are to be effective for service rendered on or after January 1, 2020.

5. That DEP shall work with the Public Staff to prepare a joint proposed Notice to Customers giving notice of the rate changes ordered by the Commission herein and those ordered by the Commission in its Order Approving Job Retention Pilot Program True-Up Rider and Customer Notice in Docket Nos. E-2, Sub 1142 and Sub 1153 on December 3, 2019. DEP shall file such proposed customer notice for Commission approval as soon as practicable.

6. That in its next rider application, DEP shall address the continuing cost-effectiveness of the Non-Residential Smart \$aver Performance Incentive Program and, if it is not cost-effective, provide details of plans to modify or close the program.

7. That the Public Staff shall continue to observe DSDR and the development of the Grid Improvement Plan and report on any overlap of the two, as necessary.

8. That DEP and the Collaborative participants shall give particular attention to the five directives stated by the Commission in this Order, and DEP shall include in its 2020 DSM/EE rider application a report on the progress made in satisfying the directives.

9. That continuing in 2020, the combined DEC/DEP Collaborative shall meet every other month.

10. That DEP shall include in its future DSM/EE applications a table that shows DEP's test period DSM/EE costs and savings, and that same information for the previous five years.

ISSUED BY ORDER OF THE COMMISSION.

This the 13<sup>th</sup> day of December, 2019.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink that reads "Kimberley A. Campbell". The signature is written in a cursive, flowing style.

Kimberley A. Campbell, Chief Clerk