



**NORTH CAROLINA  
PUBLIC STAFF  
UTILITIES COMMISSION**

October 18, 2018

M. Lynn Jarvis, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4300

Re: Docket No. E-2, Sub 1174 – Application of Duke Energy Progress, LLC, for Approval of Demand-Side Management and Energy Efficiency Cost Recovery Rider

Dear Ms. Jarvis:

Attached for filing is the Proposed Order of the Public Staff in the above-referenced docket.

By copy of this letter, I am forwarding a copy to all parties of record by electronic delivery.

Sincerely,

Electronically submitted  
s/ Lucy E. Edmondson  
Staff Attorney  
[lucy.edmondson@psncuc.nc.gov](mailto:lucy.edmondson@psncuc.nc.gov)

LEE/cla

Attachment

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**STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH**

DOCKET NO. E-2, SUB 1174

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

HEARD: On Tuesday, September 18, 2018, in Commission Hearing Room  
2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North  
Carolina

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding; Chairman  
Edward S. Finley, Jr.; Commissioners Jerry C. Dockham, James G.  
Patterson, Lyons Gray, Daniel G. Clodfelter, and Charlotte Mitchell

APPEARANCES:

For Duke Energy Progress, LLC:

Kendrick C. Fentress, Associate General Counsel, Duke Energy  
Corporation, Post Office Box 1551, Raleigh, North Carolina 27602

For Carolina Industrial Group for Fair Utility Rates II:

Warren K. Hicks, Bailey & Dixon, LLP, Post Office Box 1351,  
Raleigh, North Carolina 27602

For North Carolina Sustainable Energy Association:

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

For the Carolina Utility Customers Association:

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

For North Carolina Justice Center, Southern Alliance for Clean Energy,  
Natural Resources Defense Council, and North Carolina Housing Coalition:

David Neal, 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 and Heather D. Fennell, Public Staff - North Carolina  
Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina  
27699-4300

BY THE COMMISSION: Pursuant to N.C. Gen. Stat. § 62-133.9(d), the North Carolina Utilities Commission (Commission) is authorized to approve an annual rider to the rates of electric public utilities, outside of a general rate case, for recovery of all reasonable and prudent costs incurred for adoption and implementation of new demand-side management (DSM) and energy efficiency (EE) measures. The Commission is also authorized to award incentives to electric utilities for adopting and implementing new DSM/EE measures, including, but not limited to, appropriate rewards based on (1) the sharing of savings achieved by

the DSM and EE measures and/or (2) the capitalization of a percentage of avoided costs achieved by the measures. Commission Rule R8-69(b) provides that every year, the Commission will 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. Further, Commission Rule R8-69(b) provides for the establishment of a DSM/EE experience modification factor (EMF) rider to allow the electric public utility to collect the difference between reasonable and prudently incurred costs and the revenues that were actually realized during the test period under the DSM/EE rider then in effect. Commission Rule R8-69(c) permits the utility to request the inclusion of utility incentives (the rewards authorized by the statute), including net lost revenues (NLR), in the DSM/EE rider and the DSM/EE EMF rider.

In the present proceeding, Docket No. E-2, Sub 1174, on June 20, 2018, 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. Along with the Application, DEP filed the associated testimony, exhibits, and workpapers of Carolyn T. Miller and Robert P. Evans (Initial Filing) in support of recovery of DSM/EE costs and utility incentives forecasted for the rate period of January 1, 2019, through December 31, 2019, 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 an under-recovery of its actual DSM/EE costs and utility incentives during the test period of January 1, 2017, through December 31, 2017.

On July 2, 2018, the Commission issued an Order scheduling a public hearing in this matter for September 18, 2018, immediately following the hearings in Docket No. E-2, Subs 1173 and 1175, establishing discovery guidelines, providing for intervention and testimony by other parties, and requiring public notice. On September 13, 2018, DEP filed its affidavits of publication indicating that the Company had provided notice in newspapers of general circulation as required by the Commission's July 2, 2017, 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 June 28, 2018, the North Carolina Sustainable Energy Association (NCSEA) filed a petition to intervene, which was granted by Commission order on June 29, 2018. On July 3, 2018, the Carolina Industrial Group for Fair Utility Rates II (CIGFUR II) filed a petition to intervene, which was granted by Commission order on July 6, 2018. On July 19, 2018, the Carolina Utility Customers Association, Inc. (CUCA), filed a petition to intervene, which was granted by Commission order on July 24, 2017. On August 2, 2018, the North Carolina Justice Center, Southern Alliance for Clean Energy, Natural Resources Defense Council, and North Carolina Housing Coalition

(collectively “NC Justice Center”) filed a joint petition to intervene, which was granted by Commission order on August 14, 2018.

On September 4, 2018, NC Justice Center filed the testimony and exhibits of Chris Neme. On the same day, the Public Staff filed the testimonies and exhibits of Michael C. Maness and David M. Williamson, and the testimony of John R. Hinton.

On September 10, 2018, DEP filed the Supplemental Testimony and Exhibits of witness Miller and Supplemental Exhibits of witness Evans (Supplemental Filing). The supplemental testimony and exhibits supported adjustments to the PPI relating to Vintage 2016 and Vintage 2017 of the EnergyWise for Business program; adjustments to Vintage 2016 and Vintage 2017 lost revenues to align with the final outcome of DEP’s most recent general rate case in Docket No. E-2, Sub 1142; and adjustments to the valuation of Vintage 2017 lost revenues allocated to the non-residential lighting program.

On September 10, 2018, DEP also filed a Motion for Additional Public Hearing and Public Notice of Revised Proposed Rates. On September 11, 2018, the Commission issued an Order granting this motion, scheduling an additional public hearing in this matter for October 8, 2018, at 2:00 p.m., and requiring public notice.

On September 12, 2018, DEP filed the Rebuttal Testimony and Exhibit of Timothy J. Duff and the Rebuttal Testimony of Robert P. Evans.

On September 12, 2018, NC Justice Center filed a motion requesting that Chris Neme be excused from appearing at the hearing and that his prefiled testimony, exhibits, and affidavits be received into the record. On September 13, 2018, DEP and the Public Staff filed a joint motion requesting that their witnesses be excused from appearing at the hearing and that their prefiled testimony and exhibits be received into the record. On September 13, 2018, the Commission granted the motions to excuse the witnesses of NC Justice Center, the Public Staff, and DEP.

On September 17, the Public Staff filed the Supplemental Testimony and Exhibit II of Michael C. Maness, which incorporated the impact of the Public Staff's recommended adjustments to avoided costs to be used in the determination of the PPI and reflecting the termination of the Residential Smart \$aver EE Program, as well as the three adjustments made in DEP witness Miller's supplemental testimony and exhibits.

On September 18, 2018, the hearing was held as scheduled. No public witnesses appeared at the hearing.

On September 21, 2017, DEP filed the Affidavit of witness Evans authenticating Supplemental Evans Exhibit 9.

On October 8, 2018, the additional public hearing was held. No public witnesses appeared.

### 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 that 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 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, the Natural Resources Defense Council, and SACE

proposing revisions to the Original Mechanism, generally to be effective January 1, 2016 (Sub 931 Mechanism).

On November 27, 2017, in Docket No. E-2 Sub 1145, the Commission issued an *Order Approving DSM/EE Rider and Requiring Filing of Customer Notice* (Sub 1145 Order). In that Order, the Commission approved and adopted revisions to the Sub 931 Mechanism effective January 1, 2018. The Sub 931 Mechanism was revised in 2017 to (1) set out how the avoided costs are determined for the purposes of calculating PPI, (2) specify the avoided costs to be used for the purposes of program approval, and (3) specify the avoided costs to be used in calculating ongoing cost-effectiveness, as well as set out a procedure for modification or closure of programs that are no longer cost effective. The Sub 931 Mechanism, as revised by the Sub 1145 Order, is set forth in Maness Exhibit I and referred to herein as the “Mechanism.”

The 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 Mechanism.

In the present proceeding, based upon DEP’s verified application, the affidavits, testimony, and exhibits received into evidence, and the record as a whole, the Commission makes the following

## FINDINGS OF FACT

1. DEP is a duly organized limited liability company (LLC) existing under the laws of the State of North Carolina, engaged in the business of developing, generating, transmitting, distributing, and selling electric power to the public in North and South Carolina, and 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, 2017, through December 31, 2017.

3. The rate period for purposes of this proceeding extends from January 1, 2019, through December 31, 2019.

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
- Energy Education Program
- Multi-Family EE
- My Home Energy Report (MyHER) (formerly, EE Benchmarking)
- Neighborhood Energy Saver (Low Income)
- Residential Smart \$aver EE Program (formerly Home Energy Improvement)
- New Construction
- EnergyWise (Load Control)

- Save Energy and Water Kit
- Energy Assessment

#### 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 (Load Control)

#### Residential and Non-Residential

- DSDR
- EE Lighting

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

5. The Residential Smart \$aver EE Program should be terminated as of December 31, 2018.

6. For purposes of inclusion in this DSM/EE rider, other than the Residential \$mart Saver Program, the Company's portfolio of DSM and EE programs is cost-effective.

7. In its next rider application, DEP should address the continuing cost-effectiveness of the MyHER and Non-Residential Smart \$aver Performance Incentive Programs, and provide a discussion on actions being taken to maintain or improve cost-effectiveness, or alternatively, its plans to terminate these programs.

8. The evaluation, measurement, and verification (EM&V) reports filed as Evans Exhibits A, B, C, D, E, F, G, H, J, and K 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.

9. Acceptance of the EM&V report for the MyHER Program (Evans Exhibit I) should be postponed and addressed in next year's proceeding pending completion of the Public Staff's review.

10. The EM&V recommendations contained in the testimony of Public Staff witness Williamson are appropriate for inclusion in future EM&V reports for the applicable EE programs, when feasible and not cost prohibitive, including certain program vintages that remain to be verified and trued up.

11. The avoided capacity cost benefits for purposes of the PPI and cost-effectiveness of the Company's DSM/EE programs should include avoided capacity savings for years in which the Company's Integrated Resource Plan (IRP) does not show a need for capacity.

12. DEP should recalculate and file the components of the DSM/EE rider to be set in this proceeding with the Commission within 10 days of the issuance of this Order, consistent with the findings and conclusions of this Order. The Company should work with the Public Staff to verify the accuracy of the filing.

13. DEP should continue to utilize its Collaborative to discuss and consider the following: (a) the possible development of a published Technical Reference Manual (TRM) to publically document the current assumptions

regarding efficiency-measure energy savings, peak-demand savings life, and incremental costs, (b) the potential for overstating the savings from the MyHER Program, (c) the potential for overstating lifetime savings of residential lighting measures, (d) reducing the emphasis of DEP's portfolio of savings on short-lived behavioral programs, (e) greater promotion of longer-lived major measures including heat pumps, central air conditioners, heat pump water heaters, attic insulation, and duct sealing, and (f) greater investment in programs that will benefit lower-income communities.

#### 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. 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. Those programs are:

Residential

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

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 (Load Control)

Residential and Non-Residential

- DSDR
- EE Lighting

Thus, the Commission finds and concludes that each of the programs and pilots listed by witnesses Evans has received Commission approval as a new DSM or EE program or pilot 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 in support of this finding can be found in the testimony and exhibits of DEP witness Evans and the testimony of Public Staff witness Williamson.

DEP witness Evans Exhibit No. 7 shows the projected cost effectiveness for each program in the Company's portfolio for the Vintage 2019 period. The

Residential \$mart Saver EE Program is not cost effective under three of the four standard cost effectiveness tests, with a Utility Cost (UC) test result of 0.91, a Total Resource Cost (TRC) test result of 0.57, a Ratepayer Impact Measure (RIM) test result of 0.41, and a Participant Cost Test (PCT) result of 1.73. DEP witness Evans stated that while the Residential \$mart Saver EE Program is not currently cost effective, the Company believes it would be premature to terminate the program at this time because it is the only program that offers assistance for the purchase of residential Heating, Ventilation, and Air Conditioning (HVAC) systems, which is typically the largest energy user in the home. Evans also notes that terminating the program would strain relationships with the trade allies that are required to support this type of program, and that DEP has demonstrated an ability to implement modifications to this program in order to make the program cost effective. However, he conceded that the new lower avoided costs in 2019 make the program not cost-effective.

Public Staff witness Williamson notes that the Residential \$mart Saver EE Program has struggled to achieve cost-effectiveness for several years because: 1) higher efficiency standards mandated by the federal government have increased baselines against which savings impacts have been measured, and 2) large participant incentives are needed to overcome the upfront out-of-pocket costs to participants. Public Staff witness Williamson Exhibit No. 1 shows both the projected and actual TRC cost-effectiveness scores for the Residential \$mart Saver EE Program. The actual TRC of the Program has declined to 0.48 for the 2017 Vintage from a high of 0.90 for the 2012 Vintage.

Witness Williamson agreed that a cost-effective program that encourages the adoption of higher efficiency HVAC equipment is fundamental for a utility EE portfolio, and it may be desirable to maintain a good vendor network; however, he stated that ratepayers should not be required to pay for a program year after year where costs outweigh the benefits ratepayers receive from the program. The Public Staff recommended that the Company close the Program at the end of 2018. Consistent with this recommendation, Public Staff Witness Maness concluded that all associated Vintage 2019 program costs, NLR, and PPI should be removed from the calculating billing factors. The North Carolina retail impacts of this removal are a) a reduction in the estimated 2019 program costs of approximately \$322,000, (b) a reduction in the estimated Vintage 2019 NLR of approximately \$110,000, and (c) an increase in the Vintage 2019 levelized PPI of approximately \$8,000.

In its Sub 1145 Order, the Commission noted that modifications to the Residential Smart Saver EE Program (under its former name of the Home Energy Improvement Program) were approved in September of 2017. The Commission further stated that “if the Commission-approved modifications to the Home Energy Improvement Program do not maintain or improve the program’s cost-effectiveness by the Company’s next DSM/EE rider proceeding, the program should be terminated the end of 2018”.<sup>1</sup> As shown in Williamson Exhibit No. 1, the TRC scores for the Program have fallen precipitously, from a projected cost-effectiveness in Vintage 2014 of 1.20 under the TRC test to 0.57 for Vintage 2019.

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<sup>1</sup> Sub 1145 Order, p. 12.

Thus, the Company continues to be unable to maintain or improve the program's cost-effectiveness. Further, the projections of future cost-effectiveness do not indicate that the program will become cost-effective. In accordance with the Sub 1145 Order, the Residential Smart Saver EE Program should be closed as of December 31, 2018, and the associated costs, NLR, and PPI should be removed from the billing factors.

#### EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 6 and 7

The evidence for these findings can be found in the testimony and exhibits of Company witness Evans and the testimony and exhibits of Public Staff witness Williamson.

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 2019 period, the results of which are incorporated in Evans Exhibit No. 7.

DEP's calculations indicate that, with the exception of the MyHER Program and the Smart Saver Performance Incentive Program, all of Company's DSM/EE programs pass both the TRC and UC tests. The aggregate portfolio continues to project cost-effectiveness.

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 UC, TRC, Participant, and RIM tests. He indicated that

the MyHER (TRC of 0.96), and Non-Residential Smart \$aver Performance Incentive (TRC of 0.92) Programs are not cost-effective. Witness Williamson stated that his review indicated that the portfolio as a whole remains cost-effective under the UC, TRC, and Participant tests.

Witness Williamson further recommended that pursuant to the Mechanism, the Company should provide a discussion in its filing for next year's DSM/EE rider proceeding on the actions being taken to maintain or improve the cost-effectiveness of the MyHER and the Non-Residential Smart \$aver Performance Incentive Programs. Under Paragraph 22 and Paragraphs 22A-D of the Mechanism, the Company is directed to take certain actions for programs that are projected to be not cost-effective. If a program demonstrates a prospective TRC score of less than 1.0 in a DSM/EE rider proceeding, the Company should provide a discussion of the actions being taken to maintain or improve the program's cost-effectiveness and falls under Paragraph 22B of the Mechanism.

DEP witness Evans in his rebuttal testimony notes that the TRC score for the MyHER Program is 0.96, and given how close the program is to being cost-effective, Paragraph 22B of the Mechanism should not be applicable. In his rebuttal testimony, he also notes that the Non-Residential Smart \$aver Performance Incentive Program should not be subject to the scrutiny of Paragraph 22B because it has only been in place a short period of time, and it is anticipated to be cost-effective.

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. Additionally, the Commission concludes that the MyHER and the Non-Residential Smart \$aver Performance Incentive Programs fall under Paragraph 22B of the Mechanism. Thus, in its next rider application, DEP should include a discussion of the actions being taken to maintain or improve cost-effectiveness, or alternatively, its plans to terminate these programs.

#### EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 8-10

The evidence for these findings 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. 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 Mechanism. In addition, actual participation and evaluated load impacts are used prospectively to update estimated NLR. 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 - 2016 (Evans Exhibit A)
- EE Education Program – 2015 & 2016 (Evans Exhibit B)

- EnergyWise Home Demand Response Program – Summer 2016 (Evans Exhibit C)
- EnergyWise Home Demand Response Program – Winter 2016 & 2017 (Evans Exhibit D)
- Residential Multi-Family Efficiency Program – 2015 & 2016 (Evans Exhibit E)
- Non-Residential Smart \$aver Program (Prescriptive) – 2016 & 2017 (Evans Exhibit F)
- EnergyWise for Business Program – 2016 (Evans Exhibit G)
- Energy Efficient Lighting Program – 2016 & 2017 (Evans Exhibit H)
- My Home Energy Report (MyHER) Program – 2016 (Evans Exhibit I)
- Small Business Energy Saver Program – 2015 & 2016 (Evans Exhibit J)
- Residential Save Energy and Water Program – 2016 (Evans Exhibit K)

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 does not recommend any adjustment to the impacts at this time. He also testified that he had confirmed through sampling that the changes to program impacts and program participation were appropriately incorporated into the rider calculations for each DSM and EE program consistent with Commission orders and the Mechanism.

In addition, witness Williamson stated that DEP had adopted his EM&V-related recommendations made in the 2017 DSM/EE rider proceeding, Docket No. E-2, Sub 1145, to the extent these recommendations are applicable to the EM&V reports filed in this proceeding. He also provided recommendations concerning the content of future EM&V studies for particular EE programs, noting that DEP's

implementation of these recommendations would be subject to the consideration of whether the recommendation would be cost prohibitive.

Public Staff witness Williamson recommended that in future evaluations of the EE Lighting Program (Evans Exhibit H):

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.
3. The program evaluator should update its study on the percentage of bulb sales to residential and non-residential customers.

Regarding the EM&V report for the MyHER Program, Evans Exhibit I, Witness Williamson stated that while the Public Staff has confidence in the methodology applied to complete this evaluation and believes that the overall savings appear to be reasonable and in line with the findings of other similar evaluations of residential behavioral savings in the United States, it is unable to conclude its review of the overall findings and savings estimates put forth in the evaluation report at this time. Witness Williamson recommended postponing acceptance of the results of the MyHER program until the Public Staff conducts further review and offers recommendations in the next DSM/EE rider proceeding.

Witness Williamson concluded that, with the exception of the MyHER Program EM&V Report (Evans Exhibit I), the EM&V of the vintages of the measures covered by the remaining reports filed in this proceeding should be considered complete. In addition, he recommended that the two reports from the Sub 1145 proceeding, Small Business Energy Saver Program EM&V Report, and the Multi-Family EE Program EM&V Report, (Evans Exhibits D and E, respectively, filed in the Sub 1145 proceeding) be considered complete for the purposes of calculating program impacts in this proceeding.

In his rebuttal testimony, DEP Witness Evans raised concerns regarding two of the Mr. Williamson's recommendations regarding the future evaluations of the EE Lighting Program. Mr. Evans noted that the most reliable methods to determine both the income level of the purchasers of bulbs at dollar/discount stores and to update the percentage of bulb sales to residential and non-residential customers would require in-store intercepts. However, he pointed out that the EM&V evaluators have had problems in the past gaining access to stores to conduct the in-store intercepts.

With the exception of those EM&V-related recommendations made by Public Staff witness Williamson for revisions to Evans Exhibits H and I, no party contested the EM&V information submitted by the Company. The Commission therefore finds that the EM&V reports filed as Evans Exhibits A, B, C, D, E, F, G, H, J, and K are acceptable for purposes of this proceeding and should be considered complete for purposes of calculating program impacts; that the EM&V

reports for Small Business Energy Saver Program (Evans Exhibit D) and the Multi-Family EE Program (Evans Exhibit D) from the 1145 proceeding should be considered complete; acceptance of the EM&V Report for the MyHER program should be postponed until the Public Staff conducts further review and offers recommendations in the next DSM/EE rider proceeding; and the EM&V recommendations concerning future EM&V reports contained in the testimony of Public Staff witness Williamson should be approved and applied in future EM&V reports for the applicable EE programs, when feasible and not cost prohibitive.

Based upon the testimony and evidence cited above, the Commission finds that 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. 11

In its application, the Company included avoided capacity cost benefits in every year of the life of a measure when calculating the PPI and when calculating the cost-effectiveness of its programs. The Public Staff disagreed with the Company regarding the appropriate level of avoided costs to be used in the determination of the PPI and calculations of cost-effectiveness. Paragraph 69 of the Mechanism provides:

For the PPI for Vintage Years 2019 and afterwards, the program-specific per kW avoided capacity benefits and per kWh avoided energy benefits used for the initial estimate of the PPI and any PPI true-up will be derived from the underlying resource plan, production

cost model, and cost inputs that generated the avoided capacity and avoided energy credits reflected in the most recent Commission-approved Biennial Determination of Avoided Cost Rates for Electric Utility Purchases from Qualifying Facilities as of December 31 of the year immediately preceding the date of the annual DSM/EE rider filing. However, for the calculation of the underlying avoided energy credits to be used to derive the program-specific avoided energy benefits, the calculation will be based on the projected EE portfolio hourly shape, rather than the assumed 24x7 100 MW reduction typically used to represent a qualifying facility.

Paragraphs 18 and 22A of the Mechanism, which govern the appropriate avoided costs to be used in calculating cost-effectiveness of new and existing programs, contain similar language.

As discussed by Public Staff witness Williamson, the Public Staff believes that the Company's calculation of cost-effectiveness was not appropriately based on the avoided capacity rates approved in its October 11, 2017, order approving new avoided cost rates in Docket No. E-100, Sub 148 (Sub 148 Avoided Cost Order). The Public Staff believes that the Mechanism requires the Company to use avoided capacity rates consistent with the Sub 148 Avoided Cost Order and that the rates should reflect zero capacity value in years prior to the identified need for new capacity in the underlying IRP. Public Staff witness Williamson stated that the avoided cost methodology used for capacity payments to Qualified Facilities (QFs) should be the same as the methodology for calculating cost effectiveness of DSM/EE measures. Public Staff witness Maness also stated that the avoided costs benefits used to determine PPI should also be consistent with the avoided cost rates for capacity set by the Commission for QFs. He further recommended

that DEP adjust its estimated Vintage Year 2019 PPI proposed in this case to bring it into compliance with Paragraph 70A of the Revised Mechanism.

DEP witness Duff provided rebuttal testimony on the issue of the appropriate avoided capacity value to be used in calculation of the PPI and cost-effectiveness. Mr. Duff explained that the revisions to the Mechanism approved in Sub 1145 eliminated the Mechanism triggers to change the avoided cost rates to be used to evaluate the PPI and cost-effectiveness, and approved the current language of Paragraphs 18, 22A, and 69 of the Mechanism. He also noted that a second primary purpose of the revision was to change the source and methodology for calculating avoided energy costs from the IRP to the most recently approved avoided cost proceeding. He contended that the revisions approved in the Sub 1145 Order did not change the source of methodology underlying the avoided capacity calculation.

Mr. Duff indicated that he believed that the Company had calculated avoided capacity values consistent with Public Staff Witness Hinton's testimony in Sub 1145, and that Mr. Hinton had never testified that the avoided capacity rates used for existing DSM EE programs should be the same as those paid to QFs. He also stated that during the Sub 1145 proceeding, DEP had provided the Public Staff with a projection of what the change in Vintage 2019 PPI would be under the revisions to the Mechanism if DEP's proposed avoided costs rates in Sub 148 were approved, which showed capacity values in each year. Mr. Duff testified that adoption of the Public Staff's recommendation would be inconsistent with State

policy that recognizes the important role EE plays in allowing the Company to meet the State's Renewable Energy Portfolio Standard.

Based on the foregoing and the plain language of Paragraph 69 of the Mechanism, the Commission concludes that the appropriate avoided capacity benefits to be used for the calculation of the cost-effectiveness of programs and of the PPI or any PPI true-up should be derived from DEP's IRP, production cost model, and cost inputs that generated the avoided capacity and avoided energy credits approved in the Sub 148 Order. In particular, the Commission is persuaded that if DEP and the Public Staff had achieved a meeting of the minds on simply using the avoided costs adopted in the Sub 148 Order and subsequent avoided cost proceedings, they would have simply stated that in Paragraph 69. They did not do so.<sup>2</sup>

#### EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 12

As discussed in the body of this Order, the Commission makes its individual rulings on the disputed issues as discussed. The Commission requests that DEP recalculate the DSM/EE rider in this proceeding consistent with all of the Commission's findings and rulings herein within 10 days of the issuance of this Order. The Commission further orders that DEP work with the Public Staff to verify the accuracy of the recalculations. Once the Commission receives this filing, the

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<sup>2</sup> The Public Staff continues to believe that it is appropriate that the avoided cost methodology used for capacity payments to QFs be the same as the methodology used for calculating cost effectiveness of DSM/EE. The Public Staff also recognizes that the Commission addressed this same issue in its Order issued on September 11, 2018, in Docket No. E-7, Sub 1164, and this Proposed Order reflects the Commission's decision in that case.

Commission will work promptly to verify the calculations and will issue an Order with final revenue requirement numbers.

#### EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 13

The evidence for this finding of fact can be found in the testimony of NC Justice Center witness Neme.

NC Justice Center witness Neme discussed DEP's 2017 energy savings and outlined opportunities for DEP to increase its cost-effective energy savings from both the residential and non-residential sector. In his testimony, Mr. Neme made several recommendations related to enhancement of DSM/EE programs. The Commission concludes that DEP's Collaborative is an appropriate forum for discussion of those recommendations. In particular, the Commission finds that DEP should continue to utilize its Collaborative to discuss and consider the following: (a) the possible development of a published TRM to publically document the current assumptions regarding efficiency-measure energy savings, peak-demand savings life, and incremental costs, (b) the potential for overstating the savings from the MyHER Program, (c) the potential for overstating lifetime savings of residential lighting measures, (d) reducing the emphasis of DEP's portfolio of savings on short-lived behavioral programs, (e) greater promotion of longer-lived major measures including heat pumps, central air conditioners, heat pump water heaters, attic insulation, and duct sealing, and (f) greater investment in programs that will benefit lower-income communities.

IT IS, THEREFORE, ORDERED as follows:

1. That DEP shall recalculate and file its DSM/EE rider in this proceeding with the Commission within 10 days of the issuance of this Order, consistent with the findings and conclusions of this Order. The Company shall work with the Public Staff to verify the accuracy of its calculations prior to the filing. When the Commission determines that the Company has recalculated its rider consistent with the findings and conclusions of this Order, the Commission will issue an order accepting the calculations.

2. That DEP shall file appropriate rate schedules and riders with the Commission within five days of the Commission's Order accepting the calculations required by Ordering Paragraph No. 1. Such rates are to be effective for service rendered on or after January 1, 2019.

3. That DEP shall work with the Public Staff to prepare a joint proposed Notice to Customers giving notice of rate changes ordered by the Commission herein, and DEP shall file such proposed notice for Commission approval as soon as practicable.

4. That in its next rider application, DEP should include a discussion of the actions being taken to maintain or improve cost-effectiveness, or alternatively, its plans to terminate the MyHER and Non-Residential Smart \$aver Performance Incentive Programs.

5. That the Residential \$mart Saver Program should be canceled as of December 31, 2018.

6. That acceptance of the EM&V Report for the MyHER Program should be postponed until the Public Staff conducts further review and offers recommendations in the next DSM/EE rider proceeding.

7. That the EM&V recommendations contained in the testimony of Public Staff witness Williamson should be approved and applied in future EM&V reports for the applicable EE programs, when feasible and not cost prohibitive.

8. That DEP shall leverage its Collaborative to discuss the EM&V issues and program design issues raised in the testimony of NC Justice Center witness Neme as discussed herein. The results of these discussions shall be reported to the Commission in the Company's 2019 DSM/EE rider filing.

ISSUED BY ORDER OF THE COMMISSION.

This the \_\_\_\_ day of \_\_\_\_\_, 2018.

NORTH CAROLINA UTILITIES COMMISSION

M. Lynn Jarvis, Chief Clerk