

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. E-7, SUB 1230

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

HEARD: Tuesday, June 9, 2020, in Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina (public witness hearing) and via WebEx Video Conference (expert witness hearing)

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

APPEARANCES:

For Duke Energy Carolinas, LLC:

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For the North Carolina Sustainable Energy Association:

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

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For the Using and Consuming Public:

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BY THE COMMISSION: N.C. Gen. Stat. § 62-133.9(d) authorizes the North Carolina Utilities Commission (Commission) 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 companies 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 public utility to establish an annual DSM/EE rider to recover the reasonable and prudent costs incurred by the electric utility in 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 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.

Docket Proceedings

In the present proceeding, Docket No. E-7, Sub 1230, on February 25, 2020, Duke Energy Carolinas, LLC (DEC or Company) filed an application for approval of its DSM/EE rider (Rider EE¹ or Rider 12) for 2021² (Application) and the direct testimony and exhibits of Carolyn T. Miller, Rates Manager for DEC, and Robert P. Evans, Senior Manager –

¹ DEC refers to its DSM/EE Rider as “Rider EE”; however, this rider includes charges intended to recover both DSM and EE revenue requirements.

² The Rider EE proposed in this proceeding is the Company's twelfth Rider EE and includes components that relate to Vintages 2017, 2018, 2019, 2020, and 2021 of the cost and incentive recovery mechanism approved in Docket No. E-7, Sub 1032, as modified in Docket No. E-7, Sub 1130. For purposes of clarity, the aggregate rider is referred to in this Order as “Rider 12” or the proposed “Rider EE.” Rider 12 is proposed to be effective for the rate period January 1, 2021 through December 31, 2021.

Strategy and Collaboration for the Carolinas in the Company's Market Solutions Regulatory Strategy and Evaluation group.

On March 17, 2020, the Commission issued an order scheduling a hearing for June 9, 2020, establishing discovery guidelines, providing for intervention and testimony by other parties, and requiring public notice. DEC filed the affidavits of publication for the public notice as required by the Commission's March 17, 2020 Order.

The intervention of the Public Staff – North Carolina Utilities Commission (Public Staff) is recognized pursuant to N.C.G.S. § 62-15(d) and Commission Rule R1-19(e). The Carolina Industrial Group for Fair Utility Rates III (CIGFUR) filed a petition to intervene on March 19, 2020, which was granted on March 23, 2020. On March 23, 2020, the North Carolina Sustainable Energy Association (NCSEA) filed a petition to intervene, which was granted on March 24, 2020. On April 17, 2020, the North Carolina Justice Center (NC Justice Center), the North Carolina Housing Coalition ("NC Housing Coalition") and the Southern Alliance for Clean Energy (SACE) filed a joint petition to intervene, which was granted on April 21, 2020. On May 8, 2020, the Carolina Utility Customers Association, Inc. (CUCA) filed a petition to intervene, which was granted on May 12, 2020.

On May 11, 2020, DEC filed the supplemental testimony and revised exhibits of witness Miller and revised exhibits of witness Evans, which supplemental testimony revised the DSM/EE rates being requested by DEC. On May 13, 2020, DEC filed a motion for additional public hearing and a proposed Revised Public Notice.

On May 13, 2020, the Commission issued an order requiring publication of a second public notice of the scheduled June 9, 2020 public hearing. The order concluded that the Second Public Notice would provide reasonable and adequate notice of the requested changes in DEC's proposed DSM/EE rates, without the need to schedule an additional public hearing. In addition, the order directed DEC to publish the second public notice in newspapers having general circulation in DEC's service area one time at least fifteen days before the June 9, 2020 hearing.

On May 14, 2020, the NC Justice Center, NC Housing Coalition, and SACE (collectively, NC Justice Center, *et al.*) filed a motion for extension of time to file testimony and requested that parties be allowed to appear remotely at the June 9, 2020 hearing due to the ongoing COVID-19 pandemic. On May 18, 2020, the Commission granted the motion for extension and took under advisement the motion for remote hearing.

On May 22, 2020, the NC Justice Center, *et al.*, filed the testimony and exhibits of Forest Bradley-Wright, the Energy Efficiency Director for SACE; and the Public Staff filed the testimony and exhibits of Michael C. Maness, Director of the Accounting Division, David Williamson, Staff Engineer in the Electric Division, and John R. Hinton, Director, Economic Research Division.

On May 29, 2020, the Commission issued an order scheduling a remote hearing for expert witness testimony and requiring parties to file written statements of consent or

objection by June 3, 2020, and to file potential cross-examination exhibits by June 4, 2020. All parties filed statements of consent to holding the expert witness hearing by remote means.

On June 1, 2020, DEC filed the rebuttal testimony of Timothy J. Duff and witness Evans.

On June 3, 2019, DEC and the Public Staff filed a joint motion to excuse DEC witness Miller and Public Staff witness Maness from appearing at the June 9, 2020 expert witness hearing, which motion was granted by the Commission on June 5, 2020.

On June 8, 2020, the Public Staff filed the supplemental testimony and revised exhibits of witnesses Williamson and Maness.

On June 9, 2020, DEC, the Public Staff, and the NC Justice Center, *et al.*, filed testimony summaries for their respective witnesses appearing at the remote expert witness hearing.

The case came on for hearing as scheduled on June 9, 2020. No public witnesses appeared at the hearing.

On June 25, 2020, the Commission issued a notice requiring that briefs and proposed orders be filed by July 24, 2020. On July 21, 2020, the Commission issued an order extending the due date until August 13, 2020.

On August 13, 2020, proposed orders were filed by DEC and the Public Staff, and post hearing briefs were filed by DEC and NC Justice Center, *et al.*

Past Pertinent Proceedings

(Docket No. E-7, Subs 831, 938, 979, 1032, 1130, and 1164)

On February 9, 2010, the Commission issued an Order Approving Agreement and Joint Stipulation of Settlement Subject to Certain Commission-Required Modifications and Decisions on Contested Issues in DEC's first DSM/EE rider proceeding, Docket No. E-7, Sub 831 (Sub 831 Order). In the Sub 831 Order, the Commission approved, with certain modifications, the Agreement and Joint Stipulation of Settlement between DEC, the Public Staff, SACE, Environmental Defense Fund (EDF), Natural Resources Defense Council (NRDC), and the Southern Environmental Law Center (SELC) (Sub 831 Settlement), which described the modified save-a-watt mechanism (Sub 831 Mechanism), pursuant to which DEC calculated, for the period from June 1, 2009 until December 31, 2013, the revenue requirements underlying its DSM/EE riders based on percentages of avoided costs, plus compensation for NLR resulting from EE programs

only. The Sub 831 Mechanism was approved as a pilot with a term of four years, ending on December 31, 2013.

On February 15, 2010, the Company filed an Application for Waiver of Commission Rule R8-69(a)(4) and R8-69(a)(5) in Docket No. E-7, Sub 938 (Sub 938 Waiver Application), requesting waiver of the definitions of “rate period” and “test period.” Under the Sub 831 Mechanism, customer participation in the Company’s DSM and EE programs and corresponding responsibility to pay Rider EE are determined on a vintage year basis. A vintage year is generally the 12-month period in which a specific DSM or EE measure is installed for an individual participant or group of participants.³ The Company applied the vintage year concept on a calendar-year basis to the modified save-a-watt portfolio of programs for ease of administration for the Company and customers. Pursuant to the Sub 938 Waiver Application, “test period” is defined as the most recently completed vintage year at the time of the Company’s DSM/EE rider application filing date.

On April 6, 2010, the Commission entered an Order Granting Waiver, in Part, and Denying Waiver, in Part. The Order approved the requested waiver of R8-69(d)(3) in part, but denied the Company’s requested waiver of the definitions of “rate period” and “test period.”

On May 6, 2010, DEC filed a Motion for Clarification or, in the Alternative, for Reconsideration, asking that the Commission reconsider its denial of the waiver of the definitions of “test period” and “rate period,” and that the Commission clarify that the EMF may incorporate adjustments for multiple test periods. In response, the Commission issued an Order on Motions for Reconsideration on June 3, 2010 (Sub 938 Second Waiver Order), granting DEC’s Motion. The Sub 938 Second Waiver Order established that the rate period for Rider EE would align with the 12-month calendar year vintage concept utilized in the Commission-approved save-a-watt approach (in effect, the calendar year following the Commission’s order in each annual DSM/EE cost recovery proceeding), and that the test period for Rider EE would be the most recently completed vintage year at the time of the Company’s Rider EE cost recovery application filing date.⁴

On February 8, 2011, in Docket No. E-7, Sub 831, the Commission issued its Order Adopting “Decision Tree” to Determine “Found Revenues” and Requiring Reporting in DSM/EE Cost Recovery Filings (Sub 831 Found Revenues Order), which included, in Appendix A, a “Decision Tree” to identify, categorize, and net possible found revenues against the NLR created by the Company’s EE programs. Found revenues may result from

³ Vintage 1 is an exception in terms of length. Vintage 1 is a 19-month period beginning June 1, 2009 and ending December 31, 2010, because of the approval of DSM/EE programs prior to the approval of the cost recovery mechanism.

⁴ Further, in the Sub 938 Second Waiver Order issued June 3, 2010, the Commission concluded that DEC should true up all costs during the save-a-watt pilot through the EMF rider provided in Commission Rule R8-69(b)(1). The modified save-a-watt approach approved in the Sub 831 Order required a final calculation after the completion of the four-year program, comparing the cumulative revenues collected related to all four vintage years to amounts due the Company, taking into consideration the applicable earnings cap.

activities that directly or indirectly result in an increase in customer demand or energy consumption within the Company's service territory.

On November 8, 2011, in Docket No. E-7, Sub 979, the Commission issued its Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice, in which it approved the Evaluation, Measurement, and Verification (EM&V) agreement (EM&V Agreement) between the Company, SACE, and the Public Staff. Pursuant to the EM&V Agreement, for all EE programs, except for the Non-Residential Smart \$aver Customer Rebate Program and the Low-Income EE and Weatherization Assistance Program, actual EM&V results are applied to replace all initial impact estimates back to the beginning of the program offering. For the purposes of the vintage true-ups, these initial EM&V results will be considered actual results for a program until the next EM&V results are received. The new EM&V results will then be considered actual results going forward and will be applied prospectively for the purposes of truing up vintages from the first day of the month immediately following the month in which the study participation sample for the EM&V was completed. These EM&V results will then continue to apply and be considered actual results until superseded by new EM&V results, if any. For all new programs and pilots, the Company will follow a consistent methodology, meaning that initial estimates of impacts will be used until DEC has valid EM&V results, which will then be applied back to the beginning of the offering and will be considered actual results until a second EM&V is performed.

On February 6, 2012, in the Sub 831 docket, the Company, SACE, and the Public Staff filed a proposal regarding revisions to the program flexibility requirements (Flexibility Guidelines). The proposal divided potential program changes into three categories based on the magnitude of the change, with the most significant changes requiring regulatory approval by the Commission prior to implementation, less extensive changes requiring advance notice prior to making such program changes, and minor changes being reported on a quarterly basis to the Commission. The Commission approved the joint proposal in its July 16, 2012 Order Adopting Program Flexibility Guidelines.

On October 29, 2013, the Commission issued its Order Approving DSM/EE Programs and Stipulation of Settlement in Docket No. E-7, Sub 1032 (Sub 1032 Order), which approved a new cost recovery and incentive mechanism for DSM/EE programs (Sub 1032 Mechanism) and a portfolio of DSM and EE programs to be effective January 1, 2014, to replace the cost recovery mechanism and portfolio of DSM and EE programs approved in Docket No. E-7, Sub 831. In the Sub 1032 Order, the Commission approved an Agreement and Stipulation of Settlement, filed on August 19, 2013, and amended on September 23, 2013, by and between DEC, NCSEA, EDF, SACE, the South Carolina Coastal Conservation League (CCL), NRDC, the Sierra Club, and the Public Staff (Stipulating Parties), which incorporates the Sub 1032 Mechanism (Sub 1032 Stipulation).

Under the Sub 1032 Stipulation, the portfolio of DSM and EE programs filed by the Company was approved with no specific duration (unlike the programs approved in Sub 831, which explicitly expired on December 31, 2013). Additionally, the Sub 1032

Stipulation also provided that the Company's annual DSM/EE rider would be determined according to the Sub 1032 Stipulation and the terms and conditions set forth in the Sub 1032 Mechanism, until otherwise ordered by the Commission. Under the Sub 1032 Stipulation, the Sub 1032 Mechanism was required to be reviewed in four years and any proposals for revisions to the Sub 1032 Mechanism were to be filed by parties along with their testimony in the annual DSM/EE rider proceeding.

The overall purpose of the Sub 1032 Mechanism is to (1) allow DEC to recover all reasonable and prudent costs incurred for adopting and implementing new DSM and EE measures; (2) establish certain requirements, in addition to those of Commission Rule R8-68, for requests by DEC for approval, monitoring, and management of DSM and EE programs; (3) establish the terms and conditions for the recovery of NLR (net of found revenues) and a Portfolio Performance Incentive (PPI) to reward DEC for adopting and implementing new DSM and EE measures and programs; and (4) provide an additional incentive to further encourage kilowatt-hour (kWh) savings achievements. The Sub 1032 Mechanism also includes the following provisions, among several others: (1) it shall continue until terminated pursuant to Commission order; (2) modifications to Commission-approved DSM/EE programs will be made using the Flexibility Guidelines; (3) treatment of opted-out and opted-in customers will continue to be guided by the Commission's Orders in Docket No. E-7, Sub 938, with the addition of an additional opt-in period during the first week in March of each year; (4) the EM&V Agreement shall continue to govern the application of EM&V results; and (5) the determination of found revenues will be made using the Decision Tree approved in the Sub 831 Found Revenues Order. Like the Sub 831 Mechanism, the Sub 1032 Mechanism also employs a vintage year concept based on the calendar year.⁵

On August 23, 2017, in Docket No. E-7, Sub 1130 (Sub 1130), the Commission issued its Order Approving DSM/EE Rider, Revising DSM/EE Mechanism, and Requiring Filing of Proposed Customer Notice (Sub 1130 Order), in which it approved the agreement to revise certain provisions of the Sub 1032 Mechanism reached by the Company and the Public Staff.

Paragraph 69 of the Sub 1032 Mechanism, which describes how avoided costs are determined for purposes of calculating the PPI, was revised such that for Vintage 2019 and beyond, the program-specific avoided capacity benefits and avoided energy benefits 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 as of December 31 of the year immediately preceding the annual DSM/EE rider filing date. 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-megawatt (MW) reduction typically used to represent a qualifying facility (QF).

⁵ Each vintage under the Sub 1032 Mechanism is referred to by the calendar year of its respective rate period (e.g., Vintage 2019).

Paragraph 19 of the Sub 1032 Mechanism was revised to specify that the avoided costs used for purposes of program approval filings would also be determined using the method outlined in revised Paragraph 69. The specific Biennial Determination of Avoided Cost Rates used for each program approval filing would be derived from the rates most recently approved by the Commission as of the date of the program approval filing.

Paragraph 23 of the Sub 1032 Mechanism was revised, and Paragraphs 23A-D were added, to specify which avoided costs should be used for determining the continuing cost-effectiveness of programs and actions to be taken based on the results of those tests. Pursuant to Paragraph 23, each year the Company files an analysis of the current cost-effectiveness of each of its DSM/EE programs as part of its DSM/EE rider filing. New Paragraph 23A requires the use of the same method for calculating the avoided costs outlined in the revisions to Paragraph 69 to determine the continued cost-effectiveness for each program. Like revised Paragraph 69, Paragraph 23A specifies that the avoided capacity and energy costs used to calculate cost-effectiveness will be derived from the avoided costs underlying the most recent Commission-approved Biennial Determination of Avoided Cost Rates as of December 31 of the year immediately preceding the annual DSM/EE rider filing date. New Paragraphs 23B through 23D address the steps that will be taken if specific DSM/EE programs continue to produce Total Resource Cost (TRC) test results less than 1.00 for an extended period. For any program that initially demonstrates a TRC of less than 1.00, the Company shall include in its annual DSM/EE rider filing a discussion of the actions being taken to maintain or improve cost-effectiveness, or alternatively, its plans to terminate the program. If a program demonstrates a prospective TRC of less than 1.00 in a second DSM/EE rider proceeding, the Company shall include a discussion of what actions it has taken to improve cost effectiveness. If a program demonstrates a prospective TRC of less than 1.00 in a third DSM/EE rider proceeding, the Company shall terminate the program effective at the end of the year following the DSM/EE rider order, unless otherwise ordered by the Commission.

The Sub 1032 Mechanism, as revised by the Sub 1130 Order, is set forth in Maness Exhibit II and referred to herein as the “Mechanism.”

On October 18, 2019, the Commission issued an Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice in Docket No. E-7, Sub 1192 (Sub 1192 Order). In the Sub 1192 Order, consistent with the requirements of N.C.G.S. § 62-133.9 and Commission Rule R8-68, the Commission approved the following DSM or EE programs or pilot programs to be offered to customers in 2020: Energy Assessments; EE Education; Energy Efficient Appliances and Devices; Residential Smart Saver EE; Multi-Family EE; MyHER; Income-Qualified EE and Weatherization; Power Manager; Non-Residential Smart Saver Energy Efficient Food Service Products; Non-Residential Smart Saver Energy Efficient HVAC Products; Non-Residential Smart Saver Energy Efficient IT Products; Non-Residential Smart Saver Energy Efficient Lighting Products; Non-Residential Smart Saver Energy Efficient Process Equipment Products; Non-Residential Smart Saver Energy Efficient Pumps and Drives Products; Non-Residential Smart Saver Custom; Non-Residential Smart Saver Custom

Energy Assessments; PowerShare; PowerShare Call Option (canceled effective January 31, 2018); Small Business Energy Saver; Smart Energy in Offices (canceled effective June 30, 2018); EnergyWise for Business; and Non-Residential Smart Saver Performance Incentive. The Commission concluded that the Company's portfolio of DSM and EE programs was overall cost effective and eligible for inclusion in Rider 11. Pursuant to Paragraph 19 of the Sub 831 Mechanism, the Commission determined that the Income-Qualified EE and Weatherization Program – Low-Income does not have to meet the TRC or Utility Cost Test (UCT) to be eligible for inclusion in the Company's portfolio because of the exception for low income and other non-cost-effective programs with similar societal benefits.

The Commission accepted the EM&V reports filed as Evans Exhibits A, D, E, F, G, H, I, J, K, and L and considered them complete for purposes of calculating program impacts.

Decision

Based upon consideration of DEC's Application, the pleadings, the testimony and exhibits received into evidence at the hearing, the parties' briefs, and the record as a whole, the Commission now makes the following:

FINDINGS OF FACT

1. DEC is a public utility with a public service obligation to provide electric utility service to customers in its service area in North Carolina and is subject to the jurisdiction of the Commission.
2. The Commission has jurisdiction over this Application pursuant to the Public Utilities Act. The Commission finds that it has the authority to consider and approve or modify the specific recovery of costs and incentives the Company is seeking in this docket.
3. For purposes of this proceeding, DEC has requested approval of costs and incentives related to the following DSM/EE programs to be included in Rider 12: Energy Assessment Program; EE Education Program; Energy Efficient Appliances and Devices Program; Residential Smart Saver EE Program; Multi-Family EE Program; My Home Energy Report Program; Income-Qualified EE and Weatherization Program; Power Manager Load Control Service Program; Non-Residential Smart Saver Energy Efficient Food Service Products Program; Non-Residential Smart Saver Energy Efficient HVAC Products Program; Non-Residential Smart Saver Energy Efficient IT Products Program; Non-Residential Smart Saver Energy Efficient Lighting Products Program; Non-Residential Smart Saver Energy Efficient Process Equipment Products Program; Non-Residential Smart Saver Energy Efficient Pumps and Drives Products Program; Non-Residential Smart Saver Custom Incentive and Energy Assessment Program; PowerShare; Small Business Energy Saver Program; EnergyWise for Business; and Non-Residential Smart Saver Performance Incentive Program.

4. Pursuant to Paragraph 19 of the Mechanism, the Income-Qualified EE and Weatherization Program is not required to pass the TRC or UCT tests to be eligible for inclusion in the Company's portfolio.

5. The Residential Smart \$aver EE Program has failed to demonstrate a prospective TRC result greater than 1.0 in the current proceeding and in the previous five rider proceedings.⁶

6. The Food Service and the Information Technology measures of the Non-residential Smart \$aver Program are not currently cost effective under the TRC test; however, these are only two measures of a larger program, and no party recommended that the Company take action.

7. To sustain the benefit that low income customers and multi-family residences obtained from A-line bulbs, the Company should continue to provide A-line bulbs to low income customers and continue to replace inefficient lighting through its multi-family direct install program.

8. The Company's proposed Grid Improvement Plan (GIP) has the potential to impact the cost effectiveness of the Company's DSM/EE programs.

9. For purposes of inclusion in Rider 12, the Company's portfolio of DSM and EE programs is cost effective.

10. The EM&V reports filed as Evans Exhibits A, B, C, D, and E, are acceptable for purposes of this proceeding and should be considered complete for purposes of calculating program impacts.

11. Pursuant to the Commission's Sub 938 Second Waiver Order and the Sub 1032 Order, the rate period for purposes of this proceeding is January 1, 2021 through December 31, 2021.

12. Rider 12 includes EMF components for Vintage 2019 DSM and EE programs. Consistent with the Sub 938 Second Waiver Order and the Sub 1032 Order, the test period for these EMF components is the period from January 1, 2019 through December 31, 2019 (Vintage 2019).

13. DEC's proposed rates for Rider 12 are comprised of both prospective and EMF components. The prospective components include factors designed to collect estimated program costs and PPI for the Company's Vintage 2021 DSM and EE programs, as well as estimated NLR for the Company's Vintage 2018-2021 EE programs. The EMF components include the whole or partial true-up of Vintage 2019 program costs, NLR, and PPI, as well as whole or partial true-ups of NLR and PPI for Vintage Year 2018,

⁶ The last time the Company forecasted a TRC score above 1.0 for this program was in Docket No. E-7, Sub 1050, filed in March of 2014.

and NLR for Vintages 2016 and 2017. DEC, with the exception of billing factors affected by Finding of Fact 14, and as reflected in the testimony and exhibits of Company witnesses Miller and Evans, has appropriately calculated the components of Rider 12 to reflect the Commission's findings and conclusions in this Order, as well as the Commission's findings and conclusions as set forth in the Sub 1032 Order, as revised by the Sub 1130 Order.

14. The Company included a 17% reserve margin adder when calculating the avoided capacity costs for purposes of the Company's Vintage 2021 DSM and EE programs.

15. The Company's seasonal allocation of avoided capacity value is consistent with the Commission's most recent avoided cost proceeding and is appropriate.

16. The reasonable and prudent Rider 12 billing factor for residential customers⁷ submitted by DEC must be recalculated by the Company due to the Commission's Finding of Fact 14.

17. The reasonable and prudent Rider 12 Vintage 2021 EE prospective billing factor for nonresidential customers not opting out of Vintage 2021 of the Company's EE programs is 0.3495 cents per kWh, which, as is the case for all the other billing factors stated in these findings of fact, includes the regulatory fee.

18. The reasonable and prudent Rider 12 Vintage 2021 DSM prospective billing factor for nonresidential customers not opting out of Vintage 2021 of the Company's DSM programs is 0.1200 cents per kWh.

19. The reasonable and prudent Rider 12 Vintage 2020 prospective EE billing factor for nonresidential customers participating in Vintage 2020 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2020 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is 0.0612 cents per kWh.

20. The reasonable and prudent Rider 12 Vintage 2019 prospective EE billing factor for nonresidential customers participating in Vintage 2019 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2019 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is 0.0687 cents per kWh.

21. The reasonable and prudent Rider 12 Vintage 2018 prospective EE billing factor for nonresidential customers participating in Vintage 2018 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2018

⁷ The residential billing factor applicable to all residential customers is the sum of the residential prospective and residential true-up factors for the applicable vintage years.

during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is 0.0137 cents per kWh.

22. The reasonable and prudent Rider 12 Vintage 2019 EE EMF billing factor for nonresidential customers participating in Vintage 2019 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2019 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is (0.0225) cents per kWh.

23. The reasonable and prudent Rider 12 Vintage 2019 DSM EMF billing factor for nonresidential customers participating in Vintage 2019 of the Company's DSM programs (or those not participating, but neither (a) explicitly opting out of Vintage 2019 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is 0.0019 cents per kWh.

24. The reasonable and prudent Rider 12 Vintage 2018 EE EMF billing factor for nonresidential customers participating in Vintage 2018 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2018 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is (0.0049) cents per kWh.

25. The reasonable and prudent Rider 12 Vintage 2018 DSM EMF billing factor for nonresidential customers participating in Vintage 2018 of the Company's DSM programs (or those not participating but neither (a) explicitly opting out of Vintage 2018 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is (0.0014) cents per kWh.

26. The reasonable and prudent Rider 12 Vintage 2017 EE EMF billing factor for nonresidential customers participating in Vintage 2017 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2017 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is 0.0342 cents per kWh.

27. The reasonable and prudent Rider 12 Vintage 2017 DSM EMF billing factor for nonresidential customers participating in Vintage 2017 of the Company's DSM programs (or those not participating, but neither (a) explicitly opting out of Vintage 2017 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2020) is 0.0000 cents per kWh.

28. The reasonable and prudent Rider 12 Vintage 2016 EE EMF billing factor for nonresidential customers participating in Vintage 2016 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2016 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is 0.0193 cents per kWh.

29. The reasonable and prudent Rider 12 Vintage 2016 DSM EMF billing factor for nonresidential customers participating in Vintage 2016 of the Company's DSM

programs (or those not participating, but neither (a) explicitly opting out of Vintage 2016 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2021) is (0.0001) cents per kWh.

30. DEC should continue to leverage its collaborative stakeholder meetings (Collaborative) to work with stakeholders to garner meaningful input regarding potential portfolio enhancement and program design.

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

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1-2

The evidence and legal bases in support of these findings and conclusions can be found in the Application, the pleadings, the testimony, and the exhibits in this docket, as well as in the statutes, case law, and rules governing the authority and jurisdiction of this Commission. These findings are informational, procedural, and jurisdictional in nature.

N.C.G.S. § 62-133.9 authorizes the Commission to approve an annual rider, outside of a general rate case, for recovery of reasonable and prudent costs incurred in the adoption and implementation of new DSM and EE measures, as well as appropriate rewards for adopting and implementing those measures. Similarly, Commission Rule R8-68 provides, among other things, that reasonable and prudent costs of new DSM or EE programs approved by the Commission shall be recovered through the annual rider described in N.C.G.S. § 62-133.9 and Commission Rule R8-69. The Commission may also consider in the annual rider proceeding whether to approve any utility incentive (reward) pursuant to N.C.G.S. § 62-133.9(d) (2) a through c.

Commission Rule R8-69 outlines the procedure whereby a utility applies for and the Commission establishes an annual DSM/EE rider. Commission Rule R8-69(a)(2) defines DSM/EE rider as “a charge or rate established by the Commission annually pursuant to N.C.G.S. § 62-133.9(d) to allow the electric public utility to recover all reasonable and prudent costs incurred in adopting and implementing new demand-side management and energy efficiency measures after August 20, 2007, as well as, if appropriate, utility incentives, including net lost revenues.” Commission Rule R8-69(c) allows a utility to apply for recovery of incentives for which the Commission will determine the appropriate ratemaking treatment.

N.C.G.S. § 62-133.9, along with Commission Rules R8-68 and R8-69, establish a procedure whereby an electric public utility files an application in a unique docket for the Commission’s approval of an annual rider for recovery of reasonable and prudent costs of approved DSM and EE programs. The procedure outlined in N.C.G.S. § 62-133.9 and Commission Rules R8-68 and R8-69 also allow an electric public utility to recover appropriate utility incentives, potentially including “appropriate rewards based on capitalization of a percentage of avoided costs achieved by

demand-side management and energy efficiency measures.” Consistent with this provision, as well as the Commission-approved Mechanism, the Company filed an application for approval of such annual rider, designated by DEC as Rider 12. The cost recovery and utility incentives the Company seeks through Rider 12 are based on the Company recovering DSM/EE program costs, NLR , and a PPI incentive related to the DSM and EE programs approved in the Sub 1032 Order, and those programs approved following the Sub 1032 Order. Recovery of these costs and utility incentives is also consistent with N.C.G.S. § 62-133.9, Rule R8-68, and Rule R8-69. Therefore, the Commission concludes that it has the authority to consider and approve the cost recovery and incentives the Company is seeking in this docket.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 3

The evidence for this finding and conclusion can be found in DEC’s Application, the testimony and exhibits of Company witnesses Evans and Miller, the testimony of Public Staff witness Williamson, and various Commission orders.

DEC witnesses Miller’s and Evans’s testimony and exhibits show that the Company’s request for approval of Rider 12 is associated with the Sub 1032 portfolio of programs, as well as the programs approved by the Commission after the Sub 1032 Order. The direct testimony and exhibits of DEC witness Evans listed the applicable DSM/EE programs as follows: Energy Assessments Program; EE Education Program; Energy Efficient Appliances and Devices; Residential Smart \$aver EE Program; Multi-Family EE Program; My Home Energy Report; Income-Qualified EE and Weatherization Program; Power Manager Load Control Service Program; Non-Residential Smart \$aver Energy Efficient Food Service Products Program; Non-Residential Smart \$aver Energy Efficient HVAC Products Program; Non-Residential Smart \$aver Energy Efficient IT Products Program; Non-Residential Smart \$aver Energy Efficient Lighting Products Program; Non-Residential Smart \$aver Energy Efficient Process Equipment Products Program; Non-Residential Smart \$aver Energy Efficient Pumps and Drives Products Program; Non-Residential Smart \$aver Custom Incentive Program; Non-Residential Smart \$aver Custom Energy Assessments Program; PowerShare Non-Residential and Load Curtailment Program; PowerShare Call Option Program⁸; Small Business Energy Saver; Smart Energy in Offices Program⁹; EnergyWise for Business Program; and Non-Residential Smart \$aver Performance Incentive Program. (Tr. 59-60.)¹⁰

⁸ This program was canceled effective January 31, 2018, pursuant to the Sub 1130 Order.

⁹ This program was canceled effective June 30, 2018, pursuant to the Commission’s February 7, 2018 order in Docket No. E-7, Sub 961.

¹⁰ All transcript references in this Order are to Volume 2 of the transcript. Volume 1 is the transcript of the public witness hearing.

In his affidavit, 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.G.S. § 62-133.9. He also noted the Commission approved DEC's modifications to the Residential Energy Saver and Residential Neighborhood Energy Saver program since the prior Rider proceeding in Docket No. E-7, Sub 1192. (*Id.* at 236-38.)

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.G.S. § 62-133.9.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 4-9

The evidence for these findings and conclusions can be found in the testimony and exhibits of Company witness Evans, the testimony and exhibits of Public Staff witnesses Williamson and Maness, and the testimony of NC Justice, *et al.*, witness Bradley-Wright.

DEC 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 2021 period, the results of which are incorporated in Evans Exhibit No. 7. (Tr. 61.) DEC's calculations indicate that, except for the Income-Qualified EE and Weatherization Program (which was not cost-effective at the time of Commission approval), the Residential Smart Saver EE Program, which is continuing its transformation to an all referral channel, and elements of the Non-Residential Smart Saver Program, the aggregate portfolio continues to be cost-effective. Witness Evans testified that there is no reason to discontinue any of DEC's programs, but the Company will continue to examine its programs for potential modifications to increase their effectiveness, regardless of current cost-effectiveness results. (*Id.*)

NC Justice Center, *et al.*, witness Bradley-Wright testified that DEC's DSM/EE portfolio is cost-effective, with the value of DEC's DSM/EE programs significantly exceeding the costs and delivering strong financial value to customers. (Tr. 356)

Public Staff witness Williamson stated in his testimony that the Public Staff reviewed DEC's calculations of cost effectiveness under each of the four standard cost effectiveness tests: UCT, TRC, Participant test, and RIM test. (Tr. 240) 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. (Tr. 241-42)

Witness Williamson testified that while many programs continue to be cost effective, the TRC and UTC test scores as filed by the Company for all programs have a natural ebb and flow, mainly due to the changes in avoided cost rate

determinations. (*Id.* at 242.) He stated that the decreasing cost effectiveness is also partially attributable to anticipated unit savings being lower than expected as determined through EM&V of the programs. Also, as programs mature, baseline standards increase, or avoided cost rates decrease, and it becomes more difficult for a program to produce cost effective savings. Witness Williamson further remarked that, in contrast, some programs, have experienced greater than expected participation, which typically results in greater savings per unit cost and increases cost-effectiveness. (*Id.*)

Witness Williamson identified three areas of concern with the Company's portfolio: lighting-related measures; grid improvement plans (GIP) and the Residential Smart Saver EE program's Referral Channel.

1. Lighting

With respect to the lighting-related measures, witness Williamson recalled that the Public Staff had previously noted several trends related to transformation of the EE lighting market in North Carolina resulting from the growing accessibility of non-specialty light emitting diode (LED) lighting. Based on those trends, he predicted that LED lighting will likely become the baseline standard for general service bulb technologies by January 2020, thereby decreasing the savings from any EE program that includes general service bulb technologies. (*Id.* at 246-47.)

Witness Williamson further testified about how changes in the implementation of lighting standards may impact DEC's EE programs going forward. He recounted that on January 19, 2017, the United States Department of Energy (DOE), published final rules adopting a revised definition for general service lamp (GSL), and general service incandescent lamp (GSIL); however, on February 11, 2019, the DOE issued a notice of proposed rulemaking and request for comment that potentially could have led to withdrawal of the then currently approved language on GSL and GSIL. On September 5, 2019, the DOE published a notice of proposed determination in which it initially determined the energy conservation standards for GSILs do not need to be amended. On December 27, 2019, the DOE published a final determination in which it responded to comments received and determined that amending energy conservation standards would not be economically justified. (*Id.* at 247.)

Witness Williamson testified that North Carolina's lighting market was transforming more quickly than initially recognized because of changes to the federal lighting standards since 2007 and customer preference for LEDs. He recommended that, because of these factors, LED lighting should be considered the baseline standard for general service bulb technologies. He further testified that "market transformation" or routine adoption of EE measures had occurred in the lighting market. As a result, the Public Staff agrees with the Company's approach to focus on specialty LED bulb technologies. He concluded, however, by recommending that, beginning in 2021, the Commission consider only specialty LED lighting for recognition as energy efficiency. (*Id.* at 249.)

Company witness Evans opposed Public Staff witness Williamson's recommendation because, despite changes in the efficiency lighting market, the Company still sees an ongoing need for non-specialty energy efficient A-line bulbs for low-income and multifamily residences. Witness Evans reported that, to allow those customers to share in the benefits of energy efficiency lighting, the Company intends to continue providing A-line bulbs to low-income customers through its direct install Neighborhood Energy Saver Program and through outlets such as Good Will, Dollar General, and Habitat stores. Additionally, the Company intends to continue to replace inefficient lighting through its Multifamily direct install program. Future needs for these two customer groups will be monitored as independent EM&V studies for these programs determine their saturation. (*Id.* at 82-83.)

2. GIP

Public Staff witness Williamson also expressed concern with the impact of the Company's proposed GIP on its DSM/EE programs. He testified that the GIP would drive enhancements to capacity, data analytics/collection, and power flow capabilities on almost all of the circuits within its service territory. As more data analytics and technology enhancements are made to the Company's day-to-day operations, the base-level impacts and offerings of DSM/EE programs will be impacted. He stated that he believes the MyHER and DSM programs will be most impacted by the GIP proposal, as they rely heavily on data analytics and base level system capacity on the Transmission and Distribution (T&D) grid. He believes that as the Company deploys GIP, MyHER and the DSM programs will need to be re-evaluated to ensure that they remain cost-effective and to determine whether they have become standard operating procedures. (*Id.* at 250-51.)

With respect to MyHER, witness Williamson explained that the program relies on the collection of individual customers' data, and then analyzes that data in relation to similar nearby customers. As part of the GIP, the Company has been deploying Advanced Metering Infrastructure (AMI) throughout its service territory, which is expected to, among other things, provide customers with direct access to their interval usage data through the use of a Smart Meter Usage App. Witness Williamson stated that the services and access to data provided by the meters will be duplicative of the data provided under the MyHER program, with the exception of the energy efficiency tips offered through the MyHER report. He recommended that the Commission require DEC to assess the costs and benefits of continuing to offer the MyHER program, versus providing the same comparison and tips through another channel. (*Id.* at 251-53.)

Witness Williamson also testified that because the Company's DSM program relies on the level of system demand that is on the grid at the time that the particular DSM program is called upon by system operations, the Company's plan to build grid infrastructure to enable Integrated Volt/Var controls (IVVC) will reduce the Company's demand savings from the Company's DSM programs. Upon questions by Commissioner Brown-Bland, witness Williamson stated that regardless of "whether or not it could be captured in the EM&V," he reviewed trends, and the GIP was changing the utility's business model. For this reason, he wanted to ensure that savings reflect only the impact

associated with the DSM and EE programs. (*Id.* at 296-97.) Thus, witness Williamson recommended that the Commission direct the Company to: (1) analyze GIP to explain how it will affect DSM/EE program performance to produce peak demand and energy savings; (2) explain in the next rider proceeding how the Company will distinguish between peak demand and energy savings associated with the GIP program on the one hand and DSM and EE programs on the other; and (3) provide a list of GIP projects that have been implemented, indicating how those projects have affected performance of the Company's DSM/EE portfolio if at all, and be prepared to discuss any impacts the GIP has had on the day-to-day systems operations, as well as customer expectations for utility service in general, and the availability of customer data. (*Id.* at 254-56.)

Company witness Evans responded to the Public Staff's GIP concerns by testifying on rebuttal that the Company had already provided voluminous data, analyses, and general information about the Companies' GIP program, including IVVC, as part of the ongoing general rate cases in Docket Nos. E-7, Sub 1214, and E-2, Sub 1219. He affirmed that the Company was not opposed to reporting information related to IVVC, but the additional analysis recommended by witness Williamson was unnecessary. He further confirmed that any influence or interaction between GIP and the DSM/EE programs will be evaluated and captured in the existing reporting protocols. Additionally, witness Evans confirmed that the GIP program will not be in place until 2024 (*Id.* at 130.) Furthermore, witness Evans cautioned that integrating additional GIP status reporting into separate DSM/EE proceedings could lead to confusion as the programs are separate initiatives designed to achieve clearly defined, distinguishable goals. (*Id.* at 83-84.)

With respect to witness Williamson's recommendation that the Company reassess its MyHER program in light of the smart energy usage app and smart meter installation, witness Evans testified that MyHER is designed to engage the customers and includes a motivational aspect for customers resulting from the normative comparison of a customer's usage to their peers that the mere provision of energy usage information to customers through the app does not provide. Moreover, customers have had access to their usage data for years, albeit without as much precision, but MyHER has continued to provide significant benefits to DEC's customer base. (*Id.* at 134, 158-59.)

3. Residential Smart \$aver EE Program's Referral Channel

Although Public Staff witness Williamson testified that he did not believe that DEC had violated any Commission rules or flexibility guidelines addressing how program modifications should be addressed, he remarked on the Company's Smart \$aver EE program's use of a referral channel to offset some of the costs associated with the program and to bolster the cost-effectiveness of it. On September 11, 2017, the Commission approved the conversion of the program to include additional household related measures, as well as an online store. Witness Williamson testified that the referral channel has been expanded to include a variety of items beyond "the original focus" of HVAC equipment-related contractor referrals. The Company's website provides the contractor referral information under the marketing name "Find it Duke." The services listed include heating and air conditioning, insulation, plumbing, electrical, pool, solar, and

tree removal. (*Id.* at 261-62.) Witness Williamson explained that all the revenues that DEC receives from contractors participating in the referral channel are used to offset program costs for the benefit of the Smart \$aver program and DEC's customers. This includes revenues from solar and tree service contractors, which at present represents only a very small portion of the overall revenues received. (*Id.* at 262-63.) Public Staff witness Maness also testified that the referral service may include referral services for non-regulated services to be performed by third parties; however, witness Maness did not make any recommendations about this possibly non-regulated component of the referral service. (*Id.* at 330.) Witnesses Williamson and Maness both concluded by indicating that the Public Staff will continue to discuss the matter of the referral channel with the Company and, as part of those discussions, address whether the flexibility guidelines should be revised to address this type of program modification in the future. (*Id.* at 263, 330.)

SUMMARY OF PUBLIC STAFF TESTIMONY AND RECOMMENDATIONS ON EE PROGRAMS

Neighborhood Energy Saver Program (NES, formerly Income-Qualified EE and Weatherization Program)

Witness Evans testified that the Income-Qualified EE and Weatherization Program, which was not cost effective at the time of Commission approval, is not projected to be cost-effective for the Vintage 2021 period. (*Id.* at 61.)

Pursuant to Paragraph 19 of the Mechanism (which provides an exception for low income programs and other non-cost-effective programs with similar societal benefits), the NES program is not required to pass the TRC or UCT tests to be eligible for inclusion in the Company's portfolio. Accordingly, the Commission finds and concludes that no further action by the Company is required with respect to this program.

Residential Smart \$aver

In his direct testimony, DEC witness Evans indicated that the Residential Smart \$aver EE program is not projected to be cost effective for the Vintage 2021 period. (*Id.* at 61.) He added that during 2019, the Company implemented several changes to the program, including the continued transformation to an all referral channel. (*Id.* at 62.) He further testified that there are no reasons to discontinue any of DEC's programs, and that the Company continues to examine its programs for potential modifications to increase their effectiveness, regardless of the current cost-effectiveness test results. (*Id.* at 61.)

As fully discussed above, Public Staff witness Williamson testified that the Company has recently expanded the scope of the Smart \$aver referral channel to include a variety of items and services beyond its original focus on HVAC equipment-related contractor referrals, and that the referral channel now also provides customers with contractor referrals related to rooftop solar systems, plumbing, and tree removal services.

(*Id.* at 261-63.) Witnesses Williamson and Maness stated that the Public Staff will continue to discuss the matter of the referral channel with the Company. (*Id.* at 263, 330.)

The Commission agrees with Public Staff witness Williamson that the Company has not violated the flexibility guidelines or any Commission rules or orders in implementing the Residential Smart Saver EE Program's referral channel. The Commission directs the Public Staff and the Company to continue to discuss the matter as recommended by witness Williamson.

The Commission notes that the Residential Smart Saver EE program has failed to demonstrate a prospective TRC result greater than 1.0 in the current proceeding and in the last five rider proceedings: Docket Nos. E-7, Subs 1073, 1105, 1130, 1164, and 1192. Paragraph 23 of the Mechanism requires the Company, in each annual DSM/EE cost recovery filing, to perform prospective cost-effective test evaluations for each of its approved DSM and EE programs. Pursuant to Paragraph 23B of the Mechanism, when a program initially demonstrates a prospective TRC of less than 1.0, the Company must include a discussion in its annual DSM/EE rider proceeding concerning actions being taken to maintain or improve cost-effectiveness, or, alternatively, plans to terminate the program. Pursuant to Paragraph 23C, if a program demonstrates a prospective TRC of less than 1.0 in a second DSM/EE rider proceeding, the Company must include a discussion in its annual filing concerning what actions it has taken to improve cost-effectiveness. Pursuant to Paragraph 23D, if a program demonstrates a prospective TRC of less than 1.0 in a third DSM/EE rider proceeding, the Company must terminate the program, unless otherwise ordered by the Commission. In its January 7, 2019 Order in Docket Nos. E-7 Sub 1032 and E-7 Sub 1164, the Commission exercised its discretion to forego terminating the Residential Smart Saver EE program and, instead, approved modifications to the program.

The Commission determines that it is appropriate at this time to allow continuation of the Residential Smart Saver EE program in order to see whether the program modifications approved in Sub 1164 will increase the cost effectiveness of the program during 2021. In addition, because the Residential Smart Saver EE program has now demonstrated a prospective TRC of less than 1.0 in a sixth consecutive DSM/EE rider proceeding, the Commission is of the opinion that it may be necessary in DEC's next DSM/EE rider proceeding to determine whether there are additional steps that can be taken to improve the cost effectiveness of the program, or whether the program should be terminated.

Based on the foregoing, the Commission determines that no changes are required to the Company's Residential Smart Saver EE program at this time. However, the Commission also finds and concludes that if the program continues to demonstrate a prospective TRC result of less than 1.0 for the Vintage 2022 forecast in DEC's next DSM/EE rider proceeding, the Commission will order DEC in that rider proceeding to terminate the program unless DEC can establish by substantial evidence that there are additional modifications to the program that will improve the cost effectiveness of the program.

Non-Residential Smart \$aver

In his direct testimony, DEC witness Evans indicated that two elements (measures) of the Non-Residential Smart \$aver program—Food Service and Information Technology—are not cost effective. Witness Evans testified, however, that it would not be appropriate to discontinue these measures of the Non-Residential Smart \$aver Program. He stated that these measures are “integral” for ensuring that a robust portfolio of prescriptive offerings is available for the Company’s non-residential customers, and that these Food Service and Information Technology are merely measure categories within a much larger program. He explained that the TRC score for the prescriptive portion of the Non-Residential Smart \$aver Program is 2.05, and the TRC score for the Non-Residential Smart \$aver Program as a whole is 1.71. (*Id.* at 61-62.)

Based on the foregoing, the Commission finds and concludes that the Company is not required to take any action with respect to these two measures of the Non-Residential Smart \$aver Program at this time.

Conclusions

Based upon the foregoing, the Commission concludes that for purposes of inclusion in Rider 12, except for the Income-Qualified EE and Weatherization Program (which was not cost effective at the time of Commission approval), the Residential Smart \$aver EE Program, which is continuing its transformation to an all referral channel, and elements of the Non-Residential Smart \$aver Program, the aggregate portfolio continues to be cost effective. Because the Commission is concerned that low income and multifamily residences continue to share in the benefits of energy efficient lighting, it declines to approve the Public Staff’s recommendation that it consider only specialty LED lighting for recognition as energy efficiency in these proceedings. Instead, to sustain the benefit that low income customers and multifamily residences obtain from A-line bulbs, the Commission directs the Company to continue to provide A-line bulbs to low income customers through its direct install Neighborhood Energy Saver program and to provide them through outlets such as Good Will, Dollar General, and Habitat stores. The Commission further approves the Company’s proposal to continue replacing inefficient lighting through its Multifamily direct install program in instances where the Company is certain that inefficient lighting options are being replaced. The Company should continue to closely monitor the future needs of low income and multifamily residences as independent EM&V studies for these programs determine their saturation with standard high efficiency lighting.

With respect to witness Williamson’s recommendations concerning the GIP, the Commission finds and concludes that the potential impacts of the Company’s proposed GIP on the cost effectiveness of the Company’s DSM/EE programs warrants further examination. The Commission has received and reviewed voluminous evidence on GIP implementation in the pending general rate case in Docket No. E-7 Sub 1214, especially through the direct and rebuttal testimony of Jay W. Oliver (rebuttal testimony filed March 4, 2020). Additional status reporting in the DSM/EE docket will only duplicate

reporting done in other proceedings and complicate the already extensive reporting requirements in the DSM/EE proceedings. As witness Evans proposed, the more effective method for conveying GIP impacts on the DSM/EE portfolio for purposes of the DSM/EE rider proceedings is through EM&V reporting protocols that are already submitted in these proceedings.

With respect to the question of whether the additional analyses recommended by witness Williamson will be adequately covered by EM&V analyses, the Commission is not persuaded that a yearly analysis of any impacts on cost effectiveness will be essential to evaluating the Company's DSM/EE portfolio during each year's rider proceeding, and concludes that the existing EM&V reporting protocol is sufficient. The Commission further concludes that some information concerning the status of its GIP initiatives and their effects on DSM/EE programs could be helpful in its DSM/EE rider proceedings and, therefore, finds that the Company shall in the next rider proceeding (1) explain how the Company will distinguish peak demand and energy savings between GIP and DSM and EE programs; and (2) provide a list of GIP projects that have been implemented and explain how those projects have affected the performance of the Company's DSM/EE portfolio, if at all. Requiring DEC to perform an analysis explaining how GIP will affect the performance of individual DSM/EE programs and their ability to produce peak demand and energy savings, and file the report with the Commission in the current docket by January 1, 2021 is premature and not necessary at this time.

The Commission recognizes that there is a distinction between customers' receiving additional and more precise data about their energy usage from smart meters or from the smart meter usage app, which do not act as energy efficiency programs, and participating in a utility program, like MyHER, which engages customers through normative comparison of their usage to that of their peers and empowers customers to act on that data. Therefore, the Commission declines to accept the Public Staff's request to direct the Company to reassess its successful MyHER program at this time.

EVIDENCE AND CONCLUSIONS FOR FINDING OF FACT NO. 10

The evidence in support of this finding and conclusions can be found in the testimony and exhibits of DEC witness Evans and the testimony of Public Staff witness Williamson.

DEC witness Evans testified regarding the EM&V process, activities, and results presented in this proceeding. He explained that the EMF component of Rider 12 incorporates actual customer participation and evaluated load impacts determined through EM&V and applied pursuant to the EM&V Agreement approved by the Commission in its Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice, issued November 8, 2011 in Docket No. E-7, Sub 979 (EM&V Agreement). In addition, actual participation and evaluated load impacts are used prospectively to update estimated NLR. (Tr., 68.) In this proceeding, the Company submitted as exhibits to witness Evans' testimony detailed, completed EM&V reports or updates for the following programs: Income-Qualified EE and Weatherization Program

(Neighborhood Energy Saver) Program Evaluation Report, 2017 (Evans Exhibit A); My Home Energy Report Program Evaluation, 2017-2018 (Evans Exhibit B); Power Share Program Evaluation, 2018 (Evans Exhibit C); Energy Efficiency Education in Schools Evaluation Report, 2017-2018 (Evans Exhibit D); Smart Saver Evaluation Report, 2016-2017 (Evans Exhibit E). (*Id.* at 55-56.)

In his testimony, Public Staff witness Williamson testified that he had investigated and reviewed the EM&V reports filed in this proceeding, labeled as Evans Exhibits A through E, and that the reports should be considered complete. (*Id.* at 264-68.). He further testified that he had confirmed that the Company's calculations had incorporated the verified savings of the various EM&V reports. (*Id.* at 269.) With respect to Evans Exhibit A, which presented the evaluation of the performance of the Neighborhood Energy Saver (NES) program, he stated that the results apply to program participation from June 30, 2018 through the end of the sampling period associated with the next evaluation. Witness Williamson further stated that the evaluator of the NES program used an engineering analysis that relied upon information from other sources to determine program savings, and so a billing analysis was not done. Witness Williamson did not dispute that the engineering analysis was an appropriate analytical approach for the NES program; however, he preferred a billing analysis. (*Id.* at 265-66.)

Witness Williamson also raised an issue with respect to the net-to-gross ratio (NTGR). Again, he did not dispute the use of the engineering analysis assuming an NTGR of 1.0, indicating that was standard practice for income-qualified programs; however, he noted that lighting accounted for 38% of the program's gross savings and that there had been significant changes in the lighting market in recent years. Witness Williamson found Evans Exhibit A acceptable for purposes of verifying the NES program savings. He recommended, however, that the next evaluation of NES rely on a billing analysis for assessing the savings attributable to NES. He reported that the Company agreed to initiate the next analysis very soon. (*Id.* at 265-66.)

Witness Williamson also expressed concern about cases offering similar or identical measures across multiple programs, but having those measures evaluated by different contractors using different assumptions. Witness Williamson recommended that in the future DEC work to ensure that these measures be evaluated consistently. Otherwise, the Company should justify the differences. Witness Williamson concluded that the EM&V reports filed in this proceeding should be accepted as complete. (*Id.* at 268.)

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, and E are acceptable for purposes of this proceeding and should be considered complete for purposes of calculating program impacts.

EVIDENCE AND CONCLUSION FOR FINDING OF FACT NO. 11

The evidence in support of this finding and conclusion can be found in the Sub 938 Second Waiver Order, the Sub 1032 Order, the testimony of Company witnesses Miller and Evans, and the testimony of Public Staff witness Maness. The rate period and the scope of the EMF components of Rider 12 are consistent with the Commission's rulings in the Sub 938 Second Waiver Order and the Sub 1032 Order and are uncontested by any party.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 12 – 29

The evidence in support of these findings and conclusions can be found in the Sub 831 Order, Sub 831 Found Revenues Order, Sub 938 Waiver Order, Sub 938 Second Waiver Order, Sub 979 Order, Sub 1032 Order, and Sub 1130 Order, as well as in the Company's Application, the direct and supplemental testimony and exhibits of Company witness Miller, the direct and rebuttal testimony and exhibits of witness Evans, the rebuttal testimony of Company witness Duff, the direct and supplemental testimony and exhibits of Public Staff witnesses Maness and Williamson, and the direct testimony of Public Staff witness Hinton.

On February 25, 2020, DEC filed its Application seeking approval of Rider 12, which includes the formula for calculation of Rider EE, as well as the proposed billing factors to be effective for the 2021 rate period. Company witness Miller testified that the methods by which DEC has calculated its proposed Rider EE are consistent with the Sub 1032 Stipulation and the Mechanism approved in the Sub 1032 Order, as revised by the Sub 1130 Order. (Tr. 19.)

Witness Miller provided an overview of the Mechanism, which is designed to allow the Company to collect revenue equal to its incurred program costs¹¹ for a rate period, plus a PPI based on shared savings achieved by the Company's DSM and EE programs, and to recover NLR for EE programs only. (*Id.* at 19-23.) Witness Miller explained that the PPI is calculated by multiplying the net dollar savings achieved by the system portfolio of DSM and EE programs by a factor of 11.5%. (*Id.* at 24.) The system amount of PPI is then allocated to North Carolina retail customer classes to derive customer rates. (*Id.* at 25.) Company witness Evans explained that the calculation of the PPI is based on avoided cost savings, net of program costs, achieved through the implementation of the Company's DSM and EE programs. (*Id.* at 70-75.)

According to witness Miller, the Company may recover NLR associated with a particular vintage for a maximum of 36 months or the life of the measure, or until the implementation of new rates in a general rate case to the extent that the new rates are set to recover NLR. Witness Miller testified that for the prospective components of Rider EE, NLR are estimated by multiplying the portion of the Company's tariff rates that represents

¹¹ Rule R8-68(b)(1) defines "program costs" as all reasonable and prudent expenses expected to be incurred by the electric public utility, during a rate period, for adopting and implementing new DSM and EE measures previously approved pursuant to Rule R8-68.

the recovery of fixed costs by the estimated North Carolina retail kilowatt (kW) and kWh reductions applicable to EE programs by rate schedule, and reducing this amount by estimated found revenues. (*Id.* at 25.) He further testified that the fixed cost portion of the tariff rates is calculated by deducting the recovery of fuel and variable operation and maintenance costs from the tariff rates, and that the NLR totals for residential and nonresidential customers are then reduced by North Carolina retail found revenues computed using the weighted average lost revenue rates for each customer class. (*Id.*) For the EMF components of Rider EE, NLR are calculated by multiplying the fixed cost portion of the tariff rates by the actual and verified North Carolina retail kW and kWh reductions applicable to EE programs by rate schedule, and reducing this amount by actual found revenues. (*Id.* at 26.)

Witness Miller also testified about the impact of the Commission's Order Accepting Stipulation, Deciding Contested Issues, and Requiring Revenue Reduction, issued on June 22, 2018 in Docket No. E-7, Sub 1146, the Company's last base rate case. (Sub 1146 Order). In that order, the Commission directed the Company to maintain all of its federal excess deferred income taxes resulting from passage of the federal Tax Cuts and Jobs Act (TCJA), in a regulatory liability account pending flow back of that liability to DEC's ratepayers with interest. The Company is to file its proposal to flow back the excess deferred taxes by June 22, 2021, or in its next general rate case, whichever is sooner. Witness Miller then confirmed that DEC intended to file a general rate case in 2019. At the time DEC filed for EE/DSM cost recovery in Rider 11, it was expected that the Commission would resolve the method to flow back EDIT to customers during the planned 2019 rate case, but the timing and methodology of that anticipated flowback has yet to be determined. Therefore, DEC incorporated a placeholder for the return of EDIT in Rider 11 to mitigate potential overcollection. Witness Miller explained that for Rider 11 only, the Company included a reduction of \$10 million to Year 2020 lost revenues collected from each Vintage 2017 – 2020. She reported that this will be trued-up to actual EDIT impact on the lost revenue rate in the next DSM/EE rider filing after an order is issued in DEC's pending base rate case, Docket No. E-7, Sub 1214. Witness Miller also testified that EDIT resulting from the TCJA has not been incorporated in the calculation of net lost revenues for year 2021. In its pending general rate case, the Company has proposed that all excess deferred taxes be returned to customers through a separate rider. Therefore, according to witness Miller, there is no need for a placeholder in this proceeding. (Tr. 27-28.)

Witness Evans described how, in accordance with the Sub 831 Settlement, the Commission's Sub 831 Found Revenues Order, and the Sub 1032 Stipulation, DEC reduces NLR by net found revenues. (*Id.* at 71-72.) Additionally, he stated that the Company has continued the practice the Commission approved in its Order Approving DSM/EE Rider and Requiring Filing of Proposed Customer Notice issued on August 21, 2015 in Docket No. E-7, Sub 1073, for purposes of that proceeding, of reducing net found revenues by the monetary impact (negative found revenues) caused by reductions in consumption resulting from the Company's current initiative to replace Mercury Vapor lights with LED fixtures. (*Id.* at 72-73.)

In each of its annual rider filings, DEC performs an annual true-up process for the prior calendar year vintages. (*Id.* at 20.) The true-up reflects actual participation and verified EM&V results for the most recently completed vintage, applied in accordance with the EM&V Agreement. The Company expects that most EM&V will be available in the time frame needed to true-up each vintage in the following calendar year. (*Id.* at 21.) If any EM&V results for a vintage are not available in time for inclusion in DEC's annual rider filing, however, then the Company will make an appropriate adjustment in the next annual filing. (*Id.*)

Under the Sub 1032 Stipulation, as witness Miller explained, deferral accounting may be used for over and under recoveries of costs eligible for recovery through the annual DSM/EE rider. (*Id.* at 20.) The balance in the deferral accounts, net of deferred income taxes, may accrue a return at the net-of-tax rate of return approved in the Company's then most recent general rate case. (*Id.* at 20-21.) She testified that the methodology used for the calculation of interest shall be the same as that typically utilized for the Company's Existing DSM Program Rider proceedings. Pursuant to Commission Rule R8-69©(3), the Company will not accrue a return on NLR or the PPI. (*Id.*)

Witness Miller testified that under the Sub 1032 Stipulation and the Sub 938 First Waiver Order, qualifying nonresidential customers may opt out of the DSM and/or EE portion of Rider EE during annual election periods. (*Id.* at 28.) He stated that Rider EE will be charged to all customers who have not elected to opt out during an enrollment period and who participate in any vintage year of programs, and these customers will be subject to all true-up provisions of the approved Rider EE for any vintage in which the customers participate. Witness Miller explained that the Mechanism affords an additional opportunity for participation whereby qualifying customers may opt in to the Company's EE and/or DSM programs during the first five business days of March. (*Id.* at 28.) Customers who elect to begin participating in the Company's DSM and/or EE programs during the special "opt-in period" during March of each year will be retroactively billed the applicable Rider EE amounts back to January 1 of the vintage year, such that they will pay the appropriate Rider EE amounts for the full rate period. (*Id.* at 28-29.)

Witness Miller explained that the billing factors are computed separately for DSM and EE measures by dividing the revenue requirements for each customer class (residential and nonresidential) by the forecasted sales for the rate period for the customer class. (*Id.* at 22-23.) For nonresidential rates, the forecasted sales exclude the estimated sales to customers who have elected to opt out of paying Rider EE and the nonresidential billing factors are separately computed for each vintage. (*Id.* at 23.)

Witness Miller testified that program costs and incentives for EE programs targeted at retail residential customers across North Carolina and South Carolina are allocated to the North Carolina retail jurisdiction based on the ratio of North Carolina retail kWh sales (grossed up for line losses) to total retail kWh sales (grossed up for line losses), and then recovered only from North Carolina retail residential customers. (*Id.*) Revenue requirements related to EE programs targeted at retail non-residential customers across North Carolina and South Carolina are allocated to the North Carolina retail jurisdiction

based on the ratio of North Carolina retail kWh sales (grossed up for line losses) to total retail kWh sales (grossed up for line losses), and then recovered from only North Carolina retail non-residential customers. The portion of revenue requirements related to NLR is computed based on the kW and kWh savings of North Carolina retail customers. (*Id.* at 23-24.)

For DSM programs, witness Miller noted, the aggregated revenue requirement for all retail DSM programs targeted at both residential and non-residential customers across North Carolina and South Carolina is allocated to the North Carolina retail jurisdiction based on the North Carolina retail contribution to total retail peak demand. (*Id.* at 24.) Both residential and non-residential customer classes are allocated a share of total system DSM revenue requirements based on each group's contribution to total retail peak demand. (*Id.*)

Witness Miller further testified that the allocation factors used in DSM/EE EMF true-up calculations for each vintage are based on the Company's most recently filed Cost of Service studies at the time that the Rider EE filing incorporating the true-up is made. If there are subsequent true ups for a vintage, the allocation factors used will be the same as those used in the original DSM/EE EMF true-up calculations. (*Id.* at 24.)

Witness Miller explained that DEC calculates one integrated (prospective) DSM/EE rider and one integrated DSM/EE EMF rider for the residential class, to be effective each rate period. (*Id.* at 21.) The integrated residential DSM/EE EMF rider includes all true-ups for each applicable vintage year. Given that qualifying non-residential customers can opt out of DSM and/or EE programs, DEC calculates separate DSM and EE billing factors for the non-residential class. Additionally, the non-residential DSM and EE EMF billing factors are determined separately for each applicable vintage year, so that the factors can be appropriately charged to non-residential customers based on their opt-in/out status and participation for each vintage year. (*Id.*)

Prospective Components of Rider 12

Witness Miller testified that Rider 12 consists of five prospective components: (1) a prospective Vintage 2020 component designed to collect program costs and the PPI for DEC's 2020 vintage of DSM programs; (2) a prospective Vintage 2020 component to collect program costs, the PPI, and the first year of NLR for DEC's 2020 vintage of EE programs; (3) a prospective Vintage 2019 component designed to collect the second year of estimated NLR for DEC's 2019 vintage of EE programs; (4) a prospective Vintage 2018 component designed to collect the third year of estimated NLR for DEC's 2018 vintage of EE programs; and (5) a prospective Vintage 2017 component designed to collect the fourth year of estimated lost revenues for DEC's 2017 vintage of EE programs. (Tr. 22.)

Pursuant to the Sub 938 Second Waiver Order and the Sub 1032 Order, the rate period for the prospective components of Rider 12 is January 1, 2021 through December 31, 2021. (*Id.* at 30.)

The prospective revenue requirements for Vintage 2018 are determined separately for residential and non-residential customer classes and are based on the fourth year of estimated NLR for the Company's Vintage 2018 EE programs. (*Id.* at 30-31.) The amounts are based on estimated North Carolina retail kW and kWh reductions and the Company's rates approved in DEC's most recent general rate case, Docket No. E-7, Sub 1146, which became effective August 1, 2018, adjusted as described above to recover only the fixed cost component. (*Id.* at 30.) Certain non-residential lost revenues associated with vintages through the test period January 1, 2018 through December 31, 2018, of Docket No. E-7, Sub 1214 have been removed from the prospective period as of August 1, 2020, assuming new base rates recover the new lost revenues associated with those specific kWh sales reductions. All amounts will be "trued up" pending resolution of Docket No. E-7, Sub 1214 during the next EMF period. (*Id.*)

For Vintage 2019, the Company determined the estimated revenue requirements separately for residential and non-residential customer classes and bases them on the third year of NLR for its Vintage 2019 EE programs. The amounts are based on estimated North Carolina retail kW and kWh reductions and DEC's rates approved in its most recent general rate case, adjusted to recover only the fixed cost component. Certain residential lost revenues through the updated test period February 1, 2019 through January 31, 2020 of Docket No. E-7, Sub 1214 have been removed from the prospective period as of August 1, 2020, assuming new base rates recover the net lost revenues associated with those specific kWh sales reductions. All amounts will be trued up pending resolution of Docket No. E-7, Sub 1214 during the next EMF period. (*Id.* at 30-31.)

Witness Miller also explained that the Company determines the estimated revenue requirements for Vintage 2020 separately for residential and non-residential customer classes and bases them on the second year of NLR for its Vintage 2020 EE programs. The amounts are based on estimated North Carolina retail kW and kWh reductions and DEC's rates approved in its most recent general rate case, adjusted to only recover the fixed cost component. Certain residential lost revenues through the updated test period February 1, 2019 through January 31, 2020 have been removed from the prospective period as of August 1, 2020, assuming new base rates will recover the net lost revenues associated with those specific kWh sales reductions. All amounts will be "trued-up" pending resolution of Docket No. E-7, Sub 1214 during the next EMF period. (*Id.* at 32.)

With respect to Vintage 2021, witness Miller described the basis for the rate period revenue requirements. She testified that the estimated revenue requirements for Vintage 2021 EE programs include program costs, PPI, and the first year of NLR determined separately for residential and non-residential customer classes. The estimated revenue requirements for Vintage 2021 DSM programs include program costs and PPI. The program costs and shared savings incentive are computed at the system level and allocated to North Carolina based on the allocation methodologies described by witness Miller. The net lost revenues for EE programs are based on estimated North Carolina retail kW and kWh reductions and the rates approved in DEC's most recent general rate case. (*Id.* at 30-32.)

DEC witness Miller further testified about modifications to the calculation of how much lost revenue is included in the kWh sales for the test period. She recommended using the same methodology as used to calculate how much lost revenue should be included in kWh sales for the test period in the Commission's November 29, 2018 Order Approving DSM/EE Rider and Requiring Customer Notice in Docket No. E-2, Sub 1174. Because the twelve-month test period uses actual kWh sales, and participation in EE measures occurs throughout the year, in any given twelve-month period, a full year of lost revenues is not captured in test period kWh sales as all measures were not in place at the beginning of the test period. Therefore, quantifying the actual, incremental savings by month during that twelve-month rate case test period to calculate the amount of lost revenues actually being reflected in the new base rates to be recovered from customers is appropriate. The difference between the annualized amount of energy savings and the actual amount of energy savings should be recovered through the Company's DSM/EE rider. (*Id.* at 30-31.)

EMF Components of Rider 12

Rider 12 includes the following EMF components: (1) a true up of Vintage 2016 lost revenues; (2) a true up of Vintage 2017 lost revenues; (3) a true-up of Vintage 2018 PPI, participation, and lost revenues for DSM/EE programs based on additional EM&V results received; and (4) a true-up of Vintage 2019 program costs, PPI, and lost revenues for DSM/EE programs. (Tr. 22.)

Witness Miller testified that pursuant to the Sub 938 Second Waiver Order and the Sub 1032 Order, the "test period" for the Vintage 2019 EMF component is January 1, 2019 through December 31, 2019. As the Sub 938 Second Waiver Order allows the EMF to cover multiple test periods, the test period for the Vintage 2018 EMF component is January 1, 2018 through December 31, 2018; the test period for the Vintage 2017 EMF component is January 1, 2017 through December 31, 2017; and the test period for the Vintage 2016 EMF component is January 1, 2016, through December 31, 2016. (*Id.* at 33.)

Witness Miller explained the updates to the Vintage 2019 estimate filed in 2018 that comprise the Vintage 2019 EMF component of Rider 12. (*Id.* at 33.) Estimated participation for Vintage 2019 was updated for actual participation for the period January 2019 through December 2019. (*Id.* at 34.) Regarding NLR, estimated participation for the Year 1 Vintage 2019 estimate assumed a January 1, 2019 sign-up date and used a half-year convention, while the NLR Year 1 Vintage 2019 true up was updated for actual participation for the period January through December 2019 and actual 2019 lost revenue rates. (*Id.* at 33.) Found revenues for Year 1 of Vintage 2019 were trued up according to Commission approved guidelines. (*Id.* at 35.) To reflect the results of EM&V, Vintage 2019 estimated avoided cost savings were updated pursuant to the EM&V Agreement. (*Id.* at 33.) Finally, while the Vintage 2019 estimate included only the programs approved prior to the filing of the estimated Vintage 2019 revenue requirement, the Vintage 2019 true up was updated for new programs and pilots approved and implemented during Vintage

2019. (*Id.* at 33.) For DSM programs, the Vintage 2019 true up reflects the actual quantity of demand reduction capability for the Vintage 2019 period. (*Id.* at 34.)

Actual Year 1 (2019) NLR for Vintage 2019 were calculated using actual kW and kWh savings by North Carolina retail participants by customer class in 2019, based on actual participation and load impacts applied according to the EM&V Agreement. (*Id.* at 35.) The rates applied to the kW and kWh savings are those in effect for 2019, reduced by fuel and variable operation costs. (*Id.*) NLR were then offset by actual found revenues for Year 1 NLR of Vintage 2019. (*Id.* at 35.) NLR were calculated by rate schedule within the residential and non-residential customer classes. (*Id.*)

Witness Miller also described the basis for the Vintage 2018 EMF component of Rider 12. (*Id.* at 35.) She explained that avoided costs and NLR for Vintage 2018 EE programs were trued up based on updated EM&V participation results and the impacts of DEC's recent rate case, Docket No. E-7, Sub 1146. (*Id.* at 35.) Avoided costs for Vintage 2018 DSM programs were trued up to update participation results. (*Id.*) She explained that the actual kW and kWh savings were as experienced during the period January 1, 2018 through December 31, 2018. (*Id.*) The rates applied to the kW and kWh savings are the retail rates that were in effect during each period the lost revenues were earned, reduced by fuel and other variable costs. (*Id.* at 35.)

Witness Miller explained the basis for the Vintage 2017 EMF component of Rider 12. (*Id.*) She explained that all years were trued-up based on updated EM&V results. (*Id.* at 35.) She explained that the actual kW and kWh savings were as experienced during the period January 1, 2017 through December 31, 2017. (*Id.*) The rates applied to the kW and kWh savings are the retail rates that were in effect during each period the lost revenues were earned, reduced by fuel and other variable costs. (*Id.* at 36.) Witness Miller's supplemental testimony and exhibits reflected EMF billing factors for Rider 12 of 0.1011 cents per kWh for all North Carolina retail residential customers, (0.0001) cents per kWh for Vintage 2016 DSM participants, 0.0193 cents per kWh for Vintage 2016 EE participants, 0.0000 per kWh for Vintage 2017 DSM participants, 0.0342 cents per kWh for Vintage 2017 EE participants, (0.0014) cents per kWh for Vintage 2018 DSM participants, (0.0049) cents per kWh for Vintage 2018 EE participants, 0.0019 cents per kWh for Vintage 2019 DSM participants and (0.0225) cents per kWh for Vintage 2019 EE participants.

Public Staff Review of Company Rider 12 Calculations

As discussed above, Public Staff witness Williamson filed testimony in this proceeding discussing EM&V and cost effectiveness issues related to future DSM/EE proceedings for the Company. None of these topics and issues necessitates an adjustment to the Company's billing factor calculations. Public Staff witness Maness testified that his investigation of DEC's filing in this proceeding focused on whether the Company's proposed DSM/EE billing factors were calculated in accordance with the Sub 1032 Stipulation, the Sub 1130 Order, and the Mechanism and whether they otherwise adhered to sound ratemaking concepts and principles. (Tr., 323.) Except for

the items discussed below, witness Maness testified that he believes that the Company has calculated the Rider 12 billing factors in a manner consistent with N.C.G.S. § 62-133.9, Commission Rule R8-69, the Sub 1032 Stipulation, the Sub 1130 Order, the Mechanism, and other relevant Commission orders. (*Id.* at 324.)

Witness Maness testified that as part of its investigation in this proceeding the Public Staff performed a review of the DSM/EE program costs incurred by DEC during the 12-month period ended December 31, 2019. To accomplish this, the Public Staff selected and reviewed a sample of source documentation for test year costs included by the Company for recovery through the DSM/EE riders. Review of this sample is intended to test whether the costs included by the Company in the DSM/EE riders are valid costs of approved DSM and EE programs. As of the date of the filing of the Public Staff's testimony, this program cost audit was still underway. (*Id.* at 323.) Witness Maness noted in his testimony that if any issues or necessary adjustments are found during the completion of this process, the Public Staff would file supplemental information in this proceeding. (*Id.* at 324.)

Witness Maness further noted the following with respect to the Public Staff's investigation:

- Review of Vintage year 2019 Program Costs – The Public Staff's review of the selected sample items from the 2019 DSM/EE program costs resulted in one exception related to certain adjustments that the Company made to its DSM/EE program costs in last year's DSM/EE rider proceeding, Docket No. E-7, Sub 1192. In that proceeding, the Company and the Public Staff made adjustments to the program costs included in the calculation of Rider 11 to incorporate certain credits to Vintage Year 2018 North Carolina retail program costs that were not actually recorded in the Company's general ledger until 2019. Thus, to calculate Vintage Year 2019, North Carolina retail program costs for purposes of Rider 12 to be set in this proceeding, the Company rightly undertook to reverse the credits recorded in the general ledger in 2019 that were already reflected in the Rider 11 calculation. Witness Maness reported, however, that during its investigation in this case, the Public Staff determined that the Company had inadvertently calculated a greater reversal than it should have, thus overstating North Carolina retail Vintage Year 2019 program costs by approximately \$725,000. The Company agreed with the adjustment, and subsequently incorporated it into witness Miller's Supplemental Testimony and Exhibits, which also incorporated three supplemental Evan's exhibits. (*Id.* at 324-26.)
- Return on Deferred Program Costs and Interest on Over Recoveries – As stated in past proceedings, the Public Staff reserves the right to raise the issue of the appropriate interest rate on over recoveries of utility incentives in the future proceedings. (*Id.* at 326.)

Witness Maness also included two adjustments in his testimony. He concluded the adjustments he recommended should be incorporated into the DSM/EE billing factors, and that these factors should be approved subject to any true-ups in future cost recovery proceedings consistent with the Sub 1032 Settlement, the Sub 1130 Order, and the Revised Mechanism, as well as other relevant orders, including the Commission's final order in this proceeding. (*Id.* at 328-29.)

Application of Reserve Margin to Avoided Capacity Costs

Public Staff witness Hinton testified that, for the first time, the Company is proposing in this proceeding to increase the value of the demand reduction benefits from EE programs by 17% by including a 17% reserve margin adder in the calculation of avoided capacity costs. Witness Hinton explained that in DEC's Integrated Resource Plan (IRP), DEC reduces its peak load by the amount of the demand reduction from EE programs, which DEC considers to be a demand-side resource, as shown in the Load, Capacity, and Reserve (LCR) Tables included in DEC's IRP. He acknowledged the Company's argument that since it increases the amount of supply-side resources required to meet the projected peak load by a 17% reserve margin, a similar reserve margin adjustment would be appropriate for demand-side resources, but ultimately, witness Hinton was not persuaded that a 17% reserve margin adder to the avoided capacity cost is appropriate. He used a table to illustrate his opposition to this addition showing that DEC projects generating reserves of 3,591 MW, for a reserve margin of 19.3%. Witness Hinton then stated that if DEC had 100 MW more EE during this year, the load forecast would be reduced by 100 MW, which increases the reserve margin to 3,691 MW, or 20.0%.

Further, witness Hinton pointed out that under DEC's premise, a 100 MW load reduction from EE should reduce DEC's existing generating capacity by 119 MW to maintain its reserve margin, thereby equating the value to customers of 100 MW of demand-side EE programs to 119 MW of supply-side resources, which is logical from an IRP planning perspective. (Tr. at 206-08.) However, he questioned whether this is the appropriate value of a MW of load reduction to customers for ratemaking purposes and argued that it would be unfair to customers to force them to pay 17% more for the same amount of demand reduction from a demand-side resource. (*Id.* at 208.) In other words, witness Hinton pointed out that the weakness in DEC's argument is the inequity of asking customers to pay 17% more for the same MW reduction from an EE program versus from a DSM program. Again, witness Hinton acknowledged that DEC has a theoretical basis from a planning standpoint, but he described it as deficient from a ratemaking standpoint. (*Id.* at 209.)

Witness Hinton further disagreed with including the 17% reserve margin adder for EE programs because it is inconsistent with the methodology for calculating avoided costs that was approved by the Commission in the most recent biennial avoided cost proceeding, Docket No. E-100, Sub 158 (Sub 158). He cited previous testimony where he endorsed using PURPA-based avoided costs to link the savings and financial incentives afforded the Company for its DSM/EE programs with the rates it pays to QFs

for avoided energy and avoided capacity. (*Id.* at 211-12.) However, he believes that the proposed reserve margin adjustment diverges too far from what the Commission approved in the Sub 158 proceeding. He expressed concern that this is not the appropriate proceeding to evaluate such a significant change, rather, in his opinion, such a change should be addressed in the next mechanism review. He further stated in response to questions from the Commission that if the Commission were persuaded to add a reserve margin adder, he agreed with witness Duff's "back-up plan" of netting out the reserve margin adjustment (Tr. at 292.)

The revenue impact of Witness Hinton's removal of the reserve margin adder on the calculation of the PPI would be a reduction of \$618,791. (*Id.* at 213.)

Company witness Duff testified that applying a reserve margin factor to determine the avoided cost value associated with the Company's EE programs for vintage 2021 is appropriate. Because EE is treated as a load reduction in the IRP, rather than as a load serving resource, it should have a 17% reserve margin factor applied to it just as it would be appropriate to apply a 17% planning reserve margin factor to an increase in system load. Witness Duff testified that because of every kW of load reduction that comes from EE, the Company does not need to plan for the 1.17kW of capacity required to serve that load. (*Id.* at 119.)

Company witness Duff also clarified several assertions in witness Hinton's testimony. First, he clarified that witness Hinton's statement that the reserve margin was applied by the Company to all the MW reductions (demand reduction benefits) associated with the Company's EE programs beginning with vintage year 2021 by explaining that the Company had applied the adjustment to avoided capacity benefits but not to avoided transmission and distribution benefits. Next, witness Duff explained that witness Hinton's testimony and table did not accurately reflect DEC's proposal and position. The Company proposes to use the 17% reserve margin, in which case the 100 MW load reduction example from witness Hinton's testimony would yield a 117 MW reduction in generating capacity needs, not the 119 MW shown in witness Hinton's table. (*Id.* at 120-21.)

Witness Duff further testified that DEC's customers will benefit from DEC's proposal. He disputed that witness Hinton's assertion that customers will not realize the claimed value of the reserve margin adjustment. He explained that although the 2019 IRP shows DEC's actual reserve margin is greater than 17% in the near term, there is no reason to assume that there is no capacity value to building EE resources several years before the in-service date of a new generating unit. The majority of EE measures in DEC's vintage 2021 portfolio have a life more than six years, which is about the time that the DEC's 2019 IRP demonstrates the need for new combustion turbine generation. Therefore, those EE measures with longer lives directly contribute peak load and reserve margin savings during and after the in-service date of the next planned generating unit. Witness Duff noted that even witness Hinton acknowledged that customers will ultimately benefit from the 100 MW of load reduction due to an EE program and recognized it was likely that in the future supply-side resources will be below the 17% margin and customers would see the value of the 100 MW of added demand reduction from EE programs.

Because EE programs are built one customer or measure at a time, it typically takes several years to build a significant amount of peak load savings from EE customers. Therefore, witness Duff concluded, EE implementation needs to begin well in advance of the date it is needed. (*Id.* at 121.)

Witness Duff also disputed witness Hinton's contention that the PAF used in calculating the Company's avoided cost rates appropriately reflects a reserve margin and not simply an effective forced outage rate. Even if it reflected a reserve margin, witness Duff testified, an appropriate adjustment would not be to remove the adjustment, but instead to apply a 11.429% adder to the Avoided Capacity value for EE programs in order to factor in a 5% PAF to reflect a total 17% reserve margin. (*Id.* at 123.) Upon questions from the Commission, witness Duff further explained that although the PAF had initially been thought of as a reserve margin adjustment, it is now a reflection of the effective forced outage rate associated with capacity. (*Id.* at 168-69.) Additionally, witness Duff testified that, contrary to witness Hinton's assertion that the Company had not previously applied a reserve margin factor in its analysis of EE programs, prior to merger of Duke Energy Corporation and Progress Energy, Inc., Duke Energy Progress, LLC (DEP) used the Strategist model cost-effectiveness tool, and that tool modeled a reserve margin factor associated with capacity savings from energy efficiency. (*Id.* at 177.)

Seasonal Allocation

Public Staff witness Hinton expressed concern about the Company's use of seasonal allocation factors for "legacy" DSM programs. He stated that DEC distinguished between "legacy" and "incremental" DSM programs in the evaluation of its DSM portfolio and cost-effectiveness, and that DEC maintains that its legacy DSM programs should continue to be valued using a 100% summer seasonal allocation weighting. (*Id.* at 213-14.)

Witness Hinton agreed that the Company is winter planning, and he agreed with the Company's treatment of its incremental DSM programs with respect to the seasonal allocation weightings, but he did not agree with the Company's treatment of legacy DSM programs. Because the Company is now winter planning, he concluded that the value of summer DSM is diminished for resource planning purposes in terms of a capacity resource at the expected time of peak and the dollar per kW associated with the demand reductions. (*Id.* at 216.) Therefore, he recommended that the Commission direct the Company to treat its legacy DSM programs as it had treated its incremental DSM programs. (*Id.* at 216.)

Witness Hinton testified his recommendation would provide "added motivation" to the Company to find ways to reduce winter peak. Although aware that the Company had already begun such an investigation, he believed that his proposed method applying 10% seasonal capacity value to legacy DSM programs would appropriately direct the Company to emphasize programs that focus on reducing load for the winter season, as it would increase the incentives for reducing growth of winter peak demands. (*Id.* at 217.)

Witness Hinton said his recommendation would not result in the DSM programs causing legacy DSM programs to fail cost-effectiveness tests. These programs remain cost-effective in part due to the significant role of avoided transmission and distribution (T&D) cost, which provide almost the same beneficial value as 100% of the avoided capacity cost. (*Id.* at 222.)

Company witness Duff opposed witness Hinton's recommendations in his rebuttal testimony. First, witness Duff testified that consistent with the agreement with the Public Staff in E-7, Sub 1130, DEC used the peaker method. He disagreed with witness Hinton's assertion that the Company had acted inconsistently with the Commission's order in Sub 1130 by not applying the 10% seasonal allocation factor to the avoided cost associated with DEC's legacy DSM programs. (*Id.* at 106-07.) DEC was surprised by the Public Staff's position on Docket No. E-7, Sub 1130, because DEC did not believe that the revisions to the Sub 1130 Agreement amended how the Company calculated the avoided capacity costs used to evaluate existing programs approved by the Commission that were part of the Company's existing portfolio of programs. (*Id.* at 107.) Witness Duff explained that to recognize the growing need for winter capacity and encourage EE and DSM programs that will provide winter capacity savings, the Company voluntarily applied the 90% winter 10% summer seasonal allocation approved in the most recent Avoided Cost Proceeding to Vintage 2021. In addition to encouraging winter DSM, witness Duff believed that this approach aligned better with the way new QFs receive capacity value from the last avoided cost proceeding. (*Id.* at 109.) Witness Duff pointed out that this approach is consistent with how new QF capacity is treated in the Commission's Notice of Decision and April 15, 2020 Order Establishing Standard Rates and Contract Terms for Qualifying Facilities in Docket No. E-100, Sub 158 (Sub 158 Order). He stated the Commission acknowledged that the currently high solar penetrations in Duke's service territory will have different impacts of summer versus winter loads net of solar contribution in the past. (*Id.* at 108-09.)

Witness Duff acknowledged that neither the Company nor the Public Staff had previously raised an argument about the seasonal allocation that the Commission approved in Docket No. E-100, Sub 148, but the Company raised it in this proceeding for the reasons he discussed. Witness Duff highlighted that just as the Commission did not retroactively apply its Sub 158 seasonal allocation factors to QFs that had previously established power purchase agreements (PPAs) at avoided cost rates that were approved based on past prevailing circumstances, the Company did not retroactively apply the seasonal allocations approved in Sub 158 to legacy DSM programs. (*Id.* at 110-111.)

Witness Duff also testified that the Company's treatment of legacy DSM programs was consistent with the Commission's order in the 2018 DSM/EE proceeding in Docket No. E-7, Sub 1164. In that proceeding, the Public Staff recommended that the Commission assign zeros to capacity for legacy DSM programs until the first year of need as shown in the Company's IRP, based on the Commission's order in the then preceding avoided cost case, Docket No. E-100, Sub 148, and House Bill 589's recent amendments to N.C.G.S. § 62-156(b)(3). The Company opposed this recommendation, arguing that its

DSM programs had been established over a number of years and were a useful resource. Additionally, the Company had argued that legacy DSM programs should be treated as QFs that established legally enforceable obligations prior to November 15, 2016, in accord with the conclusions of the Commission and House Bill 589, which did not retroactively apply to those QFs. (*Id.* at 112.)

Witness Duff also explained that from an integrated resource planning (IRP) standpoint DEC's legacy DSM programs were viewed as a "dispatchable resource that is available for the entire fifteen-year planning period." (*Id.* at 113.) He noted this DSM resource has the flexibility to dispatch any time throughout the day depending on the net load on the system after accounting for the must-take solar output on the grid. Power Manager is available to dispatch into the evening hours when net load is high and solar output is diminished, a circumstance known as the "duck curve." Conversely, he indicated that, if solar is lost due to midafternoon cloud cover, demand response can be used to make up for diminished irradiance. As an IRP resource, both existing AC demand response and existing solar resources are oriented toward summer peak demand reduction, helping to meet customer peak demand in the summer. The capacity value from these resources is at least in part the reason incremental resource decisions are now geared toward winter peak demand needs. (*Id.*)

Witness Duff countered witness Hinton's contentions about applying the 10% summer allocation to DEC's legacy DSM. First, he explained that witness Hinton's argument that DEC's DSM programs were short lived was erroneous. He agreed that the Company recognizes a one-year measure life, but he noted that that was a function of the cost-recovery method DEC uses to recover its DSM/EE costs. Although DEC recognizes a one-year measure life, a legacy DSM resource has been built over time and has a term of implicit contract with customers. According to witness Duff, this more closely resembles the life of a load control switch than it does a one-year measure life. (*Id.* at 114.) He further explained that DEC's legacy DSM programs have a 1% annual net attrition rate after factoring in that most new customers moving into a home where the prior resident was a DSM participating customer choose to continue participation in the DSM program. He cited the Public Staff's previous acknowledgment that the DSM programs in the DEC IRP were "stable and expected to continue for the foreseeable future." (*Id.* at 114.)

Witness Duff next disputed witness Hinton's contention that the capacity value of the legacy summer DSM resources has changed because of changes in the Company's system lambda. He explained that changes in the Company's system lambdas could just as easily be explained by the milder 2017-19 summers when compared to the summer of 2016, where summer DSM programs were activated a significant number of times. (*Id.* at 115.) He stated that his cursory examination of historical temperatures indicated that the summer of 2016 was much hotter than normal. Moreover, the full value of a summer DSM resource is realized during extreme weather days when the ability to dispatch a summer DSM program provides peak load reduction that is less expensive to customers than starting and running more expensive peaking generation. (*Id.* at 116.) The value to customers is having the capacity available when it is needed. (*Id.* at 148.)

Witness Duff said that the Public Staff's recommended approach was not necessary to better encourage the Company to promote winter-focused DSM and EE programs. The Company is already investigating winter DSM programs with the Collaborative and has adjusted its seasonal allocations for new and incremental programs to encourage winter-focused DSM. (*Id.* at 149.) Witness Duff testified, however, that if the Commission changes seasonal allocations in the next avoided cost proceeding and then applies those changes retroactively, it can make planning those winter DSM programs "exceedingly hard" because it would be changing the resource that the Company had planned with a certain value. This could adversely impact cost-effectiveness as well. (*Id.* at 163, 117.) Witness Duff cautioned that, although he agreed that witness Hinton's assertion that his recommendation would not result in the legacy DSM programs becoming non-cost effective for Vintage Year 2021, recognizing only 10% of the avoided capacity value on legacy DSM results in the majority of the avoided costs associated with the legacy resource coming from avoided T&D. Because the Commission has required avoided T&D rates to be studied and updated prior to 2022, the continued cost-effectiveness of these programs is uncertain, particularly if there is a drop in these T&D values. Witness Duff cited the Commission's order in Docket No. E-7, Sub 1164, where the Commission stated that assigning a zero-capacity value to DSM programs would under-value the contributions of those programs and send the wrong pricing signal. Based on that order, he concluded that it logically follows that assigning a 10% value for avoided capacity to an existing summer DSM resource would undervalue the value of this capacity resource. (*Id.* at 118.)

Finally, witness Duff noted that witness Maness' testimony that the Public Staff's proposed reduction to the PPI of \$5,093,947 was based on an erroneous data request response from the Company. The Company had notified the Public Staff of the error, but the correction had not been incorporated into witness Maness's testimony. The corrected amount of the Public Staff's proposed reduction is \$3,624,753. (*Id.* at 119.)

Supplemental Adjustments

In her supplemental testimony and exhibits, Company witness Miller updated the lost revenue of Vintages 2018, 2019, and 2021 because the Company's internal review process determined an EM&V update was necessary. The update resulted in a decrease of (\$34,729) to lost revenue. Witness Miller's supplemental testimony and exhibits also reflected adjustments to Vintage 2019 program costs resulting from the Public Staff's program cost audit and the inclusion of Vintage 2016 lost revenues due to an inadvertent omission of exhibits from the original filing. Company witness Miller explained that correcting the error discovered during the Public Staff's audit resulted in a reduction of system level program cost expenses in the amount of \$992,045.69 and an increase in the PPI of \$83,560. Witness Miller also testified that the Company had determined that Vintage 2016 had been inadvertently excluded from the original Rider 12 filing. According to witness Miller, non-residential lost revenues associated with the test period (twelve months ending December 31, 2016) of the Company's general rate case proceeding in Docket No. E-7, Sub 1146 were adjusted based on specific enrollment dates, and a portion of these lost revenues were removed from the prospective period as of

August 1, 2018 and included in base rates. The remaining portion of the lost revenues should have been included in calendar year 2019 for Vintage 2016. Witness Miller testified no changes were made to residential lost revenue or the non-residential Vintage 2016 DSM calculations. She further testified that the 2016 revenues collected have been incorporated in the exhibits, and that any applicable interest has been calculated. (Tr., 41-43)

The changes described by witness Miller in her supplemental testimony impacted the following proposed rates: the residential EMF rate, non-residential Vintage Year EE 2016 EMF rate, non-residential Vintage Year DSM 2016 EMF rate, and the non-residential Vintage Year DSM 2019 EMF rate. These updates were reflected on Supplemental Miller Exhibits 1-4; Supplemental Miller Exhibits 6-7; and Supplemental Evans Exhibits 1-3. (*Id.* at 42-44.)

Additionally, in her Supplemental Testimony, witness Miller requested approval of the following annual billing adjustments, on a cents per kWh basis, with regulatory fee included:

Residential Billing Factors	¢/kWh
Residential Billing Factor for Rider 12 Prospective Components	0.4184
Residential Billing Factor for Rider 12 EMF Components	0.1011

Non-Residential Billing Factors for Rider 12 Prospective Components	¢/kWh
Vintage 2018 EE Participant	0.0137
Vintage 2019 EE Participant	0.0687
Vintage 2020 EE Participant	0.0612
Vintage 2021 EE Participant	0.3522
Vintage 2021 DSM Participant	0.1200

Non-Residential Billing Factors EMF Component	¢/kWh
Vintage 2019 EE Participant	(0.0225)
Vintage 2019 DSM Participant	0.0019
Vintage 2018 EE Participant	(0.0049)
Vintage 2018 DSM Participant	(0.0014)
Vintage 2017 EE Participant	0.0342
Vintage 2017 DSM Participant	0.0000
Vintage 2016 Participant	0.0193
Vintage 2016 Participant	(0.0001)

(*Id.* at 44-45.)

Public Staff witness Maness filed supplemental testimony on June 8, 2020, in which he stated that the Public Staff had completed its two-year review of test year program costs and other than the items mentioned in his direct testimony and adjusted by the Company in its supplemental testimony, had found no material difference between the program costs as filed by the Company and reflected in the supporting documentation examined. (*Id.* at 340.)

Conclusions on Calculations of Rider EE

Based on the foregoing, the Commission finds and concludes that the components of Rider 12 are consistent with the Commission's findings and conclusions herein, as well as the Commission's findings and conclusions as set forth in the Sub 1032 Stipulation and the Mechanism approved in the Sub 1032 Order, as revised by the Sub 1130 Order. The Commission approves the Company's calculation of the DSM/EE rates for Vintage 2021 as reflected in the supplemental testimony and exhibits of DEC witness Miller, with the exception of the impact of the 17% reserve margin adder on EE programs.

Reserve Margin Conclusions

With respect to the Company's application of the reserve margin adder to the calculation of avoided capacity costs associated with EE programs, the Commission concludes that there is indeed a theoretical basis for such an adjustment, as noted by witness Hinton. (Tr. 209.). The Commission notes that EE is treated as a load resource in the Company's IRP and agrees that with every kW of load reduction that comes from EE, the amount of load serving capacity for which the Company must plan is reduced by more than one kW. However, exactly how much the reserve margin adjustment should be is not supported by substantial evidence in this docket. The Commission concludes that, for purposes of calculating the avoided capacity cost benefits for DSM/EE programs, deviation from the approved methodology for calculating the avoided capacity costs that form the basis for rates paid to QFs is appropriate and that this matter should be studied by the Collaborative. Therefore, the Commission directs the parties to endeavor to identify an appropriate reserve margin adjustment to be used for EE programs in future proceedings.

Seasonal Allocation Conclusions

The Commission approves the Company's proposed use of the seasonal allocation weightings to new, incremental DSM programs, and does not approve the Public Staff's recommendation to extend those seasonal allocation weightings to DEC's legacy DSM programs. The Commission agrees that the Company's distinction between legacy DSM (the capacity resource that has been built from historic and planned DSM programs or the amount of DSM capacity in the Company's 2018 IRP forecast as a load serving resource) and incremental or new DSM capacity (the capacity resources that are built from new participation in DSM programs that were not factored into the Company's

IRP as a load serving resource) is appropriate for purposes of this proceeding. The Commission further concludes that the Company's applying the 10% summer and 90% winter seasonal allocation factor to the avoided capacity cost associated with its new, incremental DSM program for estimating program cost effectiveness and the Company's projected PPI are consistent with the method approved in Docket No. E-7, Sub 1130. Although the Commission recognizes that the Sub 1130 Agreement does not expressly compel the Company to apply the seasonal allocation weightings and that neither the Company nor the Public Staff has previously included them in their calculations, the Company's application of the seasonal allocation weighting is wholly consistent with the intent of the Sub 1130 Agreement, which directs that the PPI and any PPI true-up will be derived from the underlying resource plan, production cost model, cost inputs that generated the avoided capacity, and avoided energy credits reflected in the most recent Avoided Cost Proceeding. The issue of seasonal allocation was litigated and decided in the Commission's conclusions in the Sub 158 Order. See e.g. Notice of Decision, Docket No. E-100, Sub 158 at 8; and Sub 158 Order at Finding of Fact Nos. 6 and 7 and at 17-29. Therefore, the Company's adoption of the seasonal allocation weightings in the present DSM/EE proceeding is consistent with the Sub 1130 Agreement, as it reflects the most recent biennial determination of avoided cost rates for electric utility purchases.

The Commission additionally finds that the Company's adoption of the recently approved seasonal allocation of avoided capacity values for new incremental programs is also consistent with the Sub 158 Order directive to the Company to "place additional emphasis on defining and implementing cost-effective DSM programs that will be available to respond to winter demands." Sub 158 Order at 28-29. Before this proceeding, winter DSM programs had zero capacity value assigned to them for cost effectiveness and PPI calculations. (Tr., 155.) Accordingly, and as DEC witness Duff responded to Presiding Commissioner Brown-Bland's inquiry, in order to recognize the growing need for winter capacity and to encourage EE and DSM programs that will provide winter capacity savings, the Company applied the seasonal weighting for future capacity needs of 90% in the winter and 10% in the summer to encourage the development and specific promotion of new EE and DSM programs that provide winter capacity savings. The Commission does not conclude that applying the 10% seasonal weighting to existing DSM programs is necessary or appropriate for the Company to turn its focus at this time to winter-oriented DSM programs.

Although the PURPA method contemplates treating legacy DSM/EE programs as legacy QFs are treated for purposes of applying Avoided Cost Proceeding conclusions prospectively, it does not mandate that the Commission view the value of demand response capacity the same as the value of capacity from a QF. The Commission has previously rejected equating QF capacity and DSM capacity in its Order Approving DSM/EE Rider and Requiring Filing of Customer Notice, Docket No. E-7, Sub 1164, issued Sept. 11, 2018 (Sub 1164 Order). In that docket, the Public Staff contended that because the Commission had approved the use of zero for capacity costs in years where the Company did not show a need for capacity to calculate avoided cost rates for new and incremental QFs in Docket No. E-100, Sub 148, the Mechanism compelled DEC to likewise apply zeros to its calculation of avoided capacity costs for purposes of calculating

the PPI and cost-effectiveness in DSM/EE proceedings. The Commission, however, recognized that DSM provides a capacity value to customers that is different from that provided by QFs. The Commission concluded in the Sub 1164 Order that “evaluating the contributions that DSM/EE measures make to a utility avoiding future capacity needs to determine cost-effectiveness is inherently different than the evaluation taken to determine the capacity costs avoided through the purchase of electric output from a QF.” Sub 1164 Order at 44. It logically follows that assigning a 10% value for avoided capacity to an existing DSM resource, as the Public Staff urges in this case, would also undervalue this capacity resource.

The Commission further concludes that DEC’s legacy DSM programs, should not be treated as new or incremental. The evidence at the hearing showed that DEC’s DSM programs included in the IRP block are stable and expected to continue for the foreseeable future. (Tr., 114.) From a system planning perspective, the peak MW capability of the DSM programs is included in all 15 years of the IRP. (*Id.* at 113, 172-73.) In other words, the legacy DSM programs are viewed as a dispatchable resource that is available for the entire 15-year IRP planning horizon. (*Id.* at 114.) As an IRP resource, both existing demand response and existing solar QF resources are oriented toward summer peak demand reduction, helping to meet customer peak demand in the summer. The capacity value from these resources is at least in part why incremental resource decisions are now geared toward winter peak demand needs. (*Id.* at 113.) This does not mean that the existing summer-oriented resources have less value, but recognizes that *incremental* additions to those resources, whether they are solar or DSM, would have diminished incremental value.

The Commission also agrees that although DEC adopted a one-year measure life for DSM programs for cost-recovery purposes (DEC does not amortize for cost recovery purposes under N.C.G.S. § 62-133.9), this does not mean that legacy DSM programs should be treated as incremental. The Commission notes that DEP, which recovers its DSM/EE costs differently, recognizes 25 years of peak reduction impacts at the point a new customer signs up for DSM. (Tr., 114.) The recognized measure life ties to the switch life, which is 25 years. (*Id.* at 142.) As with DEC, the Commission approved new seasonal allocation weightings for DEP in Sub 158 as well – 100% winter. If the Commission applied the Public Staff’s argument to DEP, it would lead to the illogical conclusion of retroactive application of zero value seasonal allocation weightings for a DSM resource that has already been deemed used and useful for a 25-year life.

The Commission is also not persuaded that DEC’s legacy summer DSM programs should have the 10% seasonal allocation weighting because DEC has had fewer activations of them in the past four years. As witness Duff testified, that decrease in activations could just as easily be explained by the milder 2017-19 summers when compared to the summer of 2016, when summer DSM programs were activated a significant number of times. Witness Duff stated that his cursory examination of historical temperatures indicated that the summer of 2016 was much hotter than normal. No party contested witness Duff’s testimony in this regard. Moreover, the full value of a summer DSM resource occurs during extreme weather days where the ability to dispatch a

summer DSM program provides peak load reduction that is less expensive to customers than starting and running a more expensive peaking generation. (*Id.* at 115-116.) In this respect, existing summer DSM capacity provides a reliable value to customers. Thus, legacy DSM capacity should not be valued the same as incremental, new QF capacity.

The Commission also concludes that the Public Staff's approach to legacy DSM programs makes them less cost effective and changes preexisting methods of valuing legacy DSM programs. Although the Public Staff's approach does not result in the Company's legacy DSM programs being not cost effective for Vintage 2021, the approach does have potential adverse long-term impacts on this important legacy summer resource. With only 10% of the avoided capacity value being recognized under the Public Staff's approach, most of the avoided costs associated with this legacy resource come from avoided T&D value. The Commission has required the avoided T&D rates to be studied and updated prior to 2022. If T&D costs decrease, it would further imperil the cost-effectiveness of these programs. Given that uncertainty, the Public Staff's approach jeopardizes the cost-effectiveness of these programs, and thereby potentially jeopardizes their continuation. Building back a DSM resource after it has become non-cost-effective takes time. (*Id.* at 164, 191.) Although avoided T&D costs may increase rather than decrease, this does not mitigate the Commission's concern about the continued cost effectiveness of these programs. As witness Duff pointed out, the general trends of avoided costs have been downward. (*Id.* at 190.)

The Commission is also concerned that the Public Staff's position would impede the Company's ability to effectively plan DSM programs, especially winter DSM programs. By applying the 90% seasonal allocation weighting to new, incremental EE and DSM winter programs and participation, the Company has complied with the Commission's direction in Sub 158 to develop winter oriented DSM and EE programs. (*Id.* at 116, 155.) The Company has already started to discuss these types of programs within the Collaborative. However, if seasonal allocation weightings applications change every two years and are applied retroactively to legacy DSM and EE, planning for those resources would be complicated and difficult. (*Id.* at 163.) The Commission has indicated that it will revisit seasonal allocations in future avoided cost proceedings. (*Id.*) Therefore, under the Public Staff's proposed method, as the Company builds its winter DSM resources, it has no certainty, based on the variables listed above, that seasonal allocations will not shift in the future or that T&D avoided costs may will not decrease. Adopting the Public Staff's approach, therefore, potentially undermines the long-term viability of winter DSM programs.

Finally, the Commission agrees that legacy DSM programs are a desirable resource mandated by the State. Senate Bill 3 was enacted in 2007 "to promote the development of renewable energy and energy efficiency through the implementation of a Renewable Energy and Energy Efficiency Portfolio Standard (REPS)." N.C.G.S. § 62-2(10). The enactment of REPS required each electric public utility in the State to meet increasing percentages of its energy needs each year through EE measures. N.C.G.S. § 62-133.8. Finally, Senate Bill 3 provided that the utilities shall be compensated for their DSM/EE efforts and allowed awarding of incentives, including

rewards based upon shared savings and avoided costs achieved by DSM/EE measures. N.C.G.S. § 62-133.9. Therefore, inasmuch as the Public Staff's seasonal allocation method would reduce the Company's incentive, the Commission finds the method inconsistent with North Carolina policy. Accordingly, the Commission approves the Company's seasonal allocation methodology.

The Commission understands the Public Staff's concerns about the significance of the Mechanism in setting expectations on how the Company recovers its program costs, NLR, and PPI. The Mechanism refers to the most recent avoided cost case as a guide to how the Company calculates its cost effectiveness for programs. However, because the Commission biennially establishes avoided cost rates based on the regulatory and economic circumstances present every two years, avoided cost methodologies may change from time to time. Therefore, to account for interim changes in the economic and regulatory circumstances reflected in the biennial avoided cost proceedings, the Commission directs the Company in future DSM/EE proceedings to specifically address in its direct testimony whether it has altered its methodology for calculating avoided energy and capacity costs from the previous proceeding, and, if it has, to identify how the most recent avoided cost case justifies that change.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 30-31

The evidence in support of these findings and conclusions can be found in the testimony of DEC witness Evans and NC Justice Center, *et al.*, witness Bradley-Wright.

Company witness Evans described the Collaborative's activities since the June 11, 2019 hearing in the previous EE/DSM rider docket. He stated that the Collaborative continued to meet bimonthly for formal meetings in July, September, and November of last year and in January of 2020. Between the meetings, interested stakeholders joined conference calls in June, September, October and February, and informal meetings were held in July and November to focus on certain agenda items or priorities that could not be explored fully in the formal meetings. Witness Evans stated that such meetings and calls would continue similarly through 2020 as well. (Tr., 76-77.)

Witness Evans also described how members of the Collaborative participated and provided input to the Company. He noted that the Company had begun to bring program ideas to the Collaborative during the research phase before all assumptions are decided so that members can meaningfully contribute to proposals for new programs or modifications to existing ones. (*Id.* at 77.) Although the Collaborative sometimes explores ideas that do not result in new or modified programs, witness Evans asserted that the lively and diverse collaborative discussions could lead to discovering new ideas. (*Id.*) Additionally, witness Evans testified that a Collaborative member had pointed the Company to tax credits that had benefitted low-income customers. The Collaborative had also identified other programs for low-and middle-income customers, manufactured homes, and renters. Witness Evans indicated that the Company looked forward to working with the Collaborative on these opportunities. Finally, witness Evans testified that in response to some who had expressed a desire for a standard reporting protocol,

the Company is developing a new structure for reporting DEC's and DEP's program performance metric to the Collaborative. (*Id.* at 78-79.)

Company witness Evans also testified that opt outs by qualifying industrial and commercial customers have had a negative effect on the Company's overall non-residential impacts. (*Id.* at 73.) For Vintage 2019, 4,962 eligible customer accounts opted out of participating in DEC's non-residential portfolio of EE programs, and 5,537 eligible customer accounts opted out of participating in the Company's non-residential DSM programs. (*Id.* at 72.) During 2019, however, 11 opt-out eligible customers opted into the EE portion of the Rider, and 28 opt-out eligible customers opted into the DSM portion of the Rider. Witness Evans explained that because the Company does not participate in its customers' economic benefit analyses or decision-making processes, providing a reason for the increase in opt-outs is difficult. The Company believes, however, that its non-residential customers are economically savvy and may be best equipped at determining the economic benefit of participating in the Company's DSM/EE programs. According to witness Evans, this knowledge, coupled with the increases to Rider EE's rates, may be leading to the increase in eligible customer opt-outs. (*Id.* at 74.)

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 73.) It also continues to leverage its Large Account Management Team to make sure customers are informed about product offerings and their ability to opt into the Company's DSM and/or EE offerings during the March opt-in window. (*Id.* at 74-75.)

NC Justice Center, *et al.*, witness Bradley-Wright gave DEC "high marks" for its DSM/EE performance and testified that DEC continues to be a regional leader for EE in the Southeast. (*Id.* at 351.) He noted that for the two previous years the Company has exceeded a one percent savings mark. Witness Bradley-Wright reported that in 2019, DEC delivered 794.9 gigawatt-hours (GWh) of efficiency savings at the meter, equal to 0.98% of the previous year's retail sales, reflecting a 2% decline in incremental savings from 2018. (*Id.* at 355.) Savings from low-income efficiency programs were 30% higher than in 2018, however. Witness Bradley-Wright also noted that a further 10% decline in savings was projected for 2021. (*Id.* at 356-361.)

To address the projected decline in savings, witness Bradley-Wright made several recommendations. First, he recommended that the Commission direct the Company to provide specific documentation explaining any projected decline in savings in the future and how the Company intends to prevent such declines in future DSM/EE proceedings. (*Id.* at 363.) Witness Bradley-Wright next recommended that the Commission endorse the goal of achieving higher savings for low income customers, supported by increased budgets. He testified that the Company should submit a plan to the Commission to both increase low income efficiency savings levels overall and deliver efficiency savings to customers who struggle with high energy burdens. (*Id.* at 366-67.) Witness Bradley-Wright also recommended that the Commission include energy efficiency in the

state's response to the coronavirus pandemic. To that end, he urged the Commission to direct the Company to present a plan to increase efficiency assistance to customers suffering from the current economic downturn and to address the program delivery challenges resulting from the coronavirus pandemic. (*Id.* at 367.)

With respect to the Collaborative, witness Bradley-Wright described the progress of the Collaborative over the past year. Witness Bradley-Wright focused on the work to expand energy efficiency savings to low income customers. He further discussed that portion of the Commission's 2019 order wherein the Commission concluded that it would be helpful to have the Collaborative examine the reasons for the Company's forecasted savings decline and how to prevent the decline in future proceedings. He further recommended that the members of the Collaborative work with Company representatives to prepare a report before the next DSM/EE recovery rider proceeding. (*Id.* at 367-372.)

Witness Bradley-Wright concluded his testimony by addressing a number of policy and regulatory matters relating to DEC's energy savings achievements and efforts to cut carbon emissions in North Carolina. Included in that discussion were integrated resource planning, DSM/EE program applications, rate cases and performance incentive mechanism review. (*Id.* at 380-392.)

In his rebuttal testimony, DEC witness Evans responded to witness Bradley-Wright's testimony regarding the Collaborative. He disputed what he believed was witness Bradley-Wright's implication that DEC's projected decline in savings was a result of a lack of effort. Rather, witness Evans explained, the projected decline reflected market conditions and projected participation. Witness Evans confirmed that the Company continues to seek opportunities for new and improved programs. Witness Evans also cautioned against setting higher savings projections to indicate the Company aspires to higher achieved savings. According to witness Evans, projections are used to set rates; therefore, the Company is conservative in its projections to avoid raising rates and over collecting from customers. The projections, witness Evans noted, are not a cap on savings. (*Id.* at 84-86.)

Witness Evans testified that because the Company had launched a corporate strategy to address the needs of customers during the pandemic, a strategy specific to EE programs was not necessary. The corporate plan included a moratorium on disconnections and suspension of reconnection fees. Additionally, the Duke Foundation provided financial support for food banks and agencies to provide bill assistance. Although the Company has had to suspend programs that require in-home consultations, it has updated its customer communications with more tips about working from home. Consequently, witness Evans concluded a specific EE plan was not necessary. (*Id.* at 85-86.)

Witness Evans opposed NC Justice Center, *et al.*, witness Bradley-Wright's recommendation that the Commission request a report directly from the Collaborative. He noted that the Collaborative was formed by the Commission in Docket No. E-7, Sub 831 as an advisory group to provide "an important forum for Duke to receive input from a

variety of stakeholders.” Witness Evans opined that if any of the Collaborative members want to communicate with the Commission, they can do so through future interventions, and that assigning a written report for members of the Collaborative to complete is not necessary when organizations have chosen not to intervene. (*Id.* at 86.)

Conclusions

The Commission has fully reviewed the issues raised and recommendations made by NC Justice Center, *et al.*, witness Bradley-Wright, and concludes the following:

(1) The forecasted decline in DEC's DSM/EE savings in 2021 is a matter of concern. Consequently, the Collaborative should examine the reasons for the forecasted decline and continue exploring options for preventing or correcting a decline in future DSM/EE savings.

(2) The Collaborative should continue to place emphasis on developing EE programs to assist low income customers in saving energy and to lessen their energy burdens.

(3) While the Company should focus on developing EE programs to assist low income customers to save energy, the Commission is not persuaded that the coronavirus pandemic necessitates requiring DEC to file a plan to increase efficiency assistance; however, the Commission calls upon DEC to continue efforts to benefit its customers in the form of lessened energy burdens and report on those efforts in its 2021 DSM/EE rider application.

(4) In lieu of a report from the Collaborative as urged by NC Justice Center, *et al.*, the Company should continue reporting on Collaborative activities in its testimony filed in these proceedings. In addition, other parties are encouraged to address Collaborative activities through future interventions.

IT IS, THEREFORE, ORDERED as follows:

1. That with the exception of billing factors impacted by the disallowance of DEC's proposed 17% reserve margin adder, the Commission hereby approves the calculation of Rider EE as filed by DEC and revised in the Supplemental Testimony and Exhibits of Carolyn T. Miller, and the resulting billing factors as set forth in Supplemental Miller Exhibit 1, to go into effect for the rate period January 1, 2021 through December 31, 2021, subject to appropriate true ups in future cost recovery proceedings consistent with the Sub 1032 Order, the Sub 1130 Order, and other relevant orders of the Commission;

2. That DEC shall work with the Public Staff to calculate the impacted billing factors without DEC's proposed 17% reserve margin adder, and prepare a proposed Notice to Customers of the revised rate changes to be approved herein. Within 30 days from the date of this Order, the Company shall file for Commission approval of said revised

billing factors and a proposed Notice to Customers, along with DEC's proposed time for sending the customer notice;

3. That DEC and the Collaborative participants shall give particular attention to the four directives stated by the Commission in this Order, and DEC shall include in its 2021 DSM/EE rider application a report on the progress made in satisfying the directives; and

4. That the combined DEC/DEP Collaborative shall continue to meet every other month.

ISSUED BY ORDER OF THE COMMISSION.

This the 11th day of December, 2020.

NORTH CAROLINA UTILITIES COMMISSION

A handwritten signature in black ink, appearing to read "Joann R. Snyder". The signature is written in a cursive, flowing style.

Joann R. Snyder, Deputy Clerk