STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1249

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

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

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding; Chair 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:

Kendrick Fentress, Associate General Counsel, Duke Energy Corporation, P.O. Box 1551, Raleigh, North Carolina 27602

For the Carolina Industrial Group for Fair Utility Rates III:

Christina D. Cress, Bailey & Dixon, LLP, 434 Fayetteville Street, Suite 2500 P.O. Box 1351, Raleigh, North Carolina 27602

For Carolina Utility Customers Association, Inc:

Marcus W. Trathen and Craig D. Schauer, Brooks, Pierce, McLendon, Humphrey & Leonard, LLP, Suite 1700, Wells Fargo Capitol Center, 150 Fayetteville Street, P.O. Box 1800 (zip 27602), Raleigh, NC 27601

For the North Carolina Sustainable Energy Association:

Peter H. Ledford and Benjamin Smith, 4800 Six Forks Road, Suite 300, Raleigh, North Carolina 27609

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

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

For the Using and Consuming Public:

Lucy E. Edmondson and Layla Cummings, Public Staff – North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699-4300

BY THE COMMISSION: North Carolina General Statute § 62-133.9(d) authorizes the North Carolina Utilities Commission (Commission) to approve an annual rider to the rates of electric public utilities, 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 the 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 1249, on February 23, 2021, Duke Energy Carolinas, LLC (DEC or the Company) filed an application for approval of its DSM/EE rider (Rider EE[1] or Rider 13) for 2022[2] (Application) and the direct testimony and

[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 thirteenth Rider EE and includes components that relate to Vintages 2017, 2018, 2019, 2020, 2021, and 2022 of the cost and incentive recovery mechanism(s) 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 13" or the proposed "Rider EE." Rider 13 is proposed to be effective for the rate period January 1, 2022, through December 31, 2022.

exhibits of Shannon R. Listebarger, Rates Manager for DEC, and Robert P. Evans, Senior Manager – Strategy and Collaboration for the Carolinas in the Company's Market Solutions Regulatory Strategy and Evaluation group.

On March 18, 2021, the Commission issued an order scheduling a hearing for June 1, 2021, establishing discovery guidelines, providing for intervention and testimony by other parties, and requiring public notice. DEC subsequently filed the affidavits of publication for the public notice as required by the Commission's March 18, 2021 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). On April 5, 2021, the Carolina Utility Customers Association, Inc. (CUCA), filed a petition to intervene, which was granted on April 8, 2021. On April 8, 2021, the North Carolina Sustainable Energy Association (NCSEA) filed a petition to intervene, which was granted on April 12, 2021. On April 16, 2021, the North Carolina Justice Center (NC Justice Center), the North Carolina Housing Coalition (NC Housing Coalition), and the Southern Alliance for Clean Energy (SACE and collectively "NC Justice Center, *et al*.") filed a petition to intervene, which was granted on April 21, 2021. The Carolina Industrial Group for Fair Utility Rates III (CIGFUR) filed a petition to intervene on April 22, 2021, which was granted on April 23, 2021.

On May 10, 2021, the Public Staff filed the testimony and exhibits of Michael C. Maness, Director of the Accounting Division, and David Williamson, Staff Engineer in the Electric Division.

On May 10, 2021, the NC Justice Center, *et al*. filed the testimony and exhibits of Forest Bradley-Wright, Energy Efficiency Director for SACE.

On May 20, 2021, DEC filed the rebuttal testimony of witnesses Listebarger and Evans.

On May 26, 2021, the Public Staff filed a letter stating that it and DEC had agreed to work to resolve issues raised by the Public Staff regarding DEC's Find It Duke program. Further, the Public Staff stated that it and DEC will report to the Commission on their efforts in their testimony to be filed in DEC's 2022 DSM/EE rider proceeding, and that DEC and the Public Staff had agreed that DEC should not be required to make any changes to its accounting related to the Find It Duke program (FID) costs or revenues at this time.

On May 26, 2021, DEC, the Public Staff, and the NC Justice Center, *et al*. filed a joint motion to excuse all witnesses from appearing at the June 1, 2021, expert witness hearing. On May 28, 2021, the Commission issued an order granting the motion, excusing all witnesses, cancelling the evidentiary hearing, accepting all evidence into the record, and requiring that proposed orders be filed by July 1.

On May 27, 2021, DEC filed a motion to cancel the public hearing. On May 28, 2021, the Commission issued an order granting the motion and cancelled the public hearing.

On June 24, 2021, the Commission issued an Order requiring DEC to answer numerous questions about FID.

On June 28, 2021, the Public Staff filed a letter indicating that it had completed its review of test year program costs and found no material differences between the program costs as filed by the Company and the costs as reflected in the supporting documentation examined.

On June 28, 2021, DEC filed a motion for extension of time to file proposed orders. On June 29, 2021, the Commission issued an order granting the motion and extending the due date until July 9, 2021.

On July 9, 2021, a joint proposed order was filed by DEC and the Public Staff, and a post-hearing brief was filed by NC Justice Center, *et al*.

On July 23, 2021, DEC filed its answers to the Commission's questions about FID.

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. In this Order, the Commission 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 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 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) reached by the Company, SACE, and the Public Staff. Pursuant to the EM&V Agreement, for all EE programs, except for the Non-Residential Smart $aver Custom Rebate Program and the Low-Income EE and Weatherization Assistance

[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.

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 (2013 Sub 1032 Order), which approved a new cost recovery and incentive mechanism for DSM/EE programs (2013 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 2013 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, the Environmental Defense Fund, SACE, the South Carolina Coastal Conservation League, the Natural Resources Defense Council, the Sierra Club, and the Public Staff (Stipulating Parties), which incorporates the 2013 Mechanism (2013 Sub 1032 Stipulation).

Under the 2013 Sub 1032 Stipulation, as approved by the Commission, 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 2013 Sub 1032 Stipulation also provided that the Company's annual DSM/EE rider would be determined according to the 2013 Sub 1032 Stipulation and the terms and conditions set forth in the 2013 Mechanism, until otherwise ordered by the Commission. Under the 2013 Sub 1032 Stipulation, the 2013 Mechanism was to be reviewed in four years. Pursuant to the 2013 Sub 1032 Stipulation, any proposals for revisions to the 2013 Mechanism were to be filed by parties along with their testimony in the annual DSM/EE rider proceeding.

The overall purpose of the 2013 Mechanism (as well as the subsequent iterations of the Mechanism discussed later in this Order) 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 2013 Mechanism also included the following provisions, among several others: (a) it shall continue until terminated pursuant to Commission order; (b) modifications to Commission-approved DSM/EE programs will be made using the Flexibility Guidelines; (c) 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 another opt-in period during the first week in March of each year; (d) the EM&V Agreement shall continue to govern the application of EM&V results; and (e) 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 2013 Mechanism also employs a vintage year concept based on the calendar year.[5] Unless specified otherwise therein, the later iterations of the 2013 Mechanism generally continue to reflect these provisions.

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 2013 Mechanism reached by the Company and the Public Staff.

Paragraph 69 of the 2013 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).

Paragraph 19 of the 2013 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

[5] Each vintage under the 2013 Mechanism and subsequent revisions of the Mechanism is referred to by the calendar year of its respective rate period (e.g., Vintage 2021).

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 2013 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 would file an analysis of the current cost-effectiveness of each of its DSM/EE programs as part of the DSM/EE rider filing. New Paragraph 23A required 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 specified that the avoided capacity and energy costs used to calculate cost-effectiveness would 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 referred to herein as the "2017 Mechanism."

On October 20, 2020, in Docket Nos. E-2, Sub 931, and E-7, Sub 1032, the Commission issued its Order Approving Revisions to Demand-Side Management and Energy Efficiency Cost Recovery Mechanisms (2020 Sub 1032 Order), in which it approved a revised prospective Mechanism (2020 Mechanism). The 2020 Mechanism includes the following substantive changes to the 2017 Mechanism that are applicable to DEC: (1) addition of a Program Return Incentive (PRI), an incentive to encourage DEC to pursue savings from existing and new low-income DSM/EE programs, and to maintain and increase the cost-effectiveness of these programs; (2) reduction of the PPI to 10.60%; (3) addition of a cap and floor on the PPI with a maximum margin of 19.50% for Vintage Year 2022 and afterward, and a minimum margin over aggregate pre-tax program costs for PPI eligible programs of 10% for Vintage Year 2022, 6% for Vintage Year 2023, and 2.50% for Vintage Year 2024 and afterward; (4) an assessment of whether it is appropriate to use non-energy benefits in the determination of cost-effectiveness under the Total Resource Cost Test (TRC); (5) clarification that bundled measures must be consistent with and related to the measure technologies or delivery channels of a program, unless otherwise ordered by the Commission; (6) use of the Utility Cost Test (UCT) to determine the cost-effectiveness of new and ongoing programs; (7) a review of Avoided Transmission and Distribution (T&D) Costs no later than December 31, 2021;

and (8) an additional incentive of $500,000 if the Company achieves annual energy savings of 1.0% of the prior year's system retail electricity sales in any year during 2022 through 2025, and a penalty of a $500,000 reduction in its EE revenue requirement if the Company fails to achieve annual energy savings of 0.5% of retail sales, net of sales associated with customers opting out of the Company's EE programs. The 2020 Mechanism is effective for vintage years beginning with Vintage Year 2022; thus, the 2017 Mechanism applies to costs recovered through the EMF in this proceeding, while the 2020 Mechanism applies prospectively to costs projected and eventually trued up for Vintage Year 2022. Therefore, this cost recovery proceeding falls under the Commission's Sub 1032 Orders approving both the 2017 Mechanism and the 2020 Mechanism. (Sub 1032 Orders.)

Based upon consideration of DEC's Application, the pleadings, the testimony, and exhibits received into evidence, 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 13: Energy Assessment Program; EE Education Program; Energy Efficient Appliances and Devices Program; Residential Smart $aver EE Program; Multifamily EE Program; My Home Energy Report Program; Residential Neighborhood Energy Saver; 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 Efficiency 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 and Energy Assessment Program; PowerShare; Small Business Energy Saver Program; EnergyWise for Business; and Non-Residential Smart $aver Performance Incentive Program.

4. Pursuant to Paragraph 19 of the 2017 Mechanism and Paragraph 20 of the 2020 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 EnergyWise for Business Program is not currently cost-effective, but no party recommended any modification or termination of the program, the most recent EM&V study reflects an increase in average energy savings, and the Company is planning to make modifications to improve cost-effectiveness.

6. The Information Technology measure of the Non-Residential Smart $aver Program is not currently cost-effective under the UCT; however, because it is only one measure of the larger Non-Residential Smart $aver program, which is cost-effective, the Commission will not require that the measure be terminated at this time.

7. The Residential Smart $aver EE Program has vacillated around 1.0 for several years under both the TRC test and the UCT; however, because the program has currently demonstrated cost-effectiveness with a UCT score of 1.02, and because of the importance of encouraging the adoption of high efficiency heating and cooling systems as a fundamental part of the Company's EE portfolio, the Commission will not require that the program be terminated at this time. The Company, however, should continue to review the Program for potential enhancements to improve cost-effectiveness.

8. DEC's costs and revenues derived from referrals under FID to persons who are not DEC ratepayers, and for referrals related to non-EE work, should not be included in DEC's costs and revenues under its Rider 13.

9. EM&V should be utilized to the extent feasible to assess the impact interval energy usage information gleaned from Advanced Meter Infrastructure (AMI) and energy tips have on customers versus information provided through the education and engagement around EE provided through the My Home Energy Report (MyHER).

10. For purposes of inclusion in Rider 13, the Company's portfolio of DSM and EE programs is cost-effective; however, the Company should continue to leverage its existing programs and explore developing additional programs that cost-effectively target the largest residential end uses of electricity, such as space heating, cooling, and water heating.

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

12. The Public Staff should continue to work with DEC to ensure Grid Improvement Program (GIP) reporting will include metrics that will assist in determining the potential impacts on DEC's DSM/EE portfolio.

13. Pursuant to the Commission's Sub 938 Second Waiver Order and the Sub 1032 Orders, the rate period for purposes of this proceeding is January 1, 2022, through December 31, 2022.

14. Rider 13 includes EMF components for Vintage 2020 DSM and EE programs. Consistent with the Sub 938 Second Waiver Order and the Sub 1032 Orders, the test period for these EMF components is the period from January 1, 2020, through December 31, 2020 (Vintage 2020).

15. DEC's proposed rates for Rider 13 comprise both prospective and EMF components. The prospective components include factors designed to collect estimated program costs, PPI, and PRI for the Company's Vintage 2022 DSM and EE programs, as well as estimated NLR for the Company's Vintage 2019-2022 EE programs. The EMF components include the whole or partial true-up of Vintage 2020 program costs, NLR, and PPI, as well as whole or partial true-ups of NLR and PPI for Vintage Years 2018 and 2019, and NLR for Vintage 2017. DEC has appropriately calculated the components of Rider 13 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 2013 Sub 1032 Order, as revised by the Sub 1130 Order, and the 2020 Sub 1032 Order.

16. It is appropriate for the Company to include an 11.429% reserve margin adder when calculating the avoided capacity costs for purposes of truing up the Company's Vintage 2022 EE programs in its future annual riders.

17. The reasonable and prudent Rider 13 billing factor[6] for residential customers submitted by DEC must be recalculated by the Company due to the Commission's Finding of Fact No. 8.

18. The reasonable and prudent Rider 13 Vintage 2022 EE prospective billing factor for nonresidential customers not opting out of Vintage 2022 of the Company's EE programs (exclusive of any future true-up related to the RMAF methodology addressed by Finding of Fact No. 16) is 0.4102 cents per kWh.

19. The reasonable and prudent Rider 13 Vintage 2022 DSM prospective billing factor for nonresidential customers not opting out of Vintage 2022 of the Company's DSM programs is 0.1038 cents per kWh.

20. The reasonable and prudent Rider 13 Vintage 2021 prospective EE billing factor for nonresidential customers participating in Vintage 2021 of the Company's EE programs (or those not participating, but neither (a) explicitly opting out of Vintage 2021 during the annual enrollment period for that vintage, nor (b) opting out of Vintage 2022) is 0.0813 cents per kWh.

21. The reasonable and prudent Rider 13 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

[6] 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 2022) is 0.0411 cents per kWh.

22. The reasonable and prudent Rider 13 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 2022) is 0.0122 cents per kWh.

23. The reasonable and prudent Rider 13 Vintage 2020 EE EMF 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 2022) is (0.0856) cents per kWh.

24. The reasonable and prudent Rider 13 Vintage 2020 DSM EMF billing factor for nonresidential customers participating in Vintage 2020 of the Company's DSM 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 2022) is (0.0113) cents per kWh.

25. The reasonable and prudent Rider 13 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 2022) is (0.0422) cents per kWh.

26. The reasonable and prudent Rider 13 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 2022) is (0.0015) cents per kWh.

27. The reasonable and prudent Rider 13 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 2022) is 0.0030 cents per kWh.

28. The reasonable and prudent Rider 13 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 2022) is 0.0019 cents per kWh.

29. The reasonable and prudent Rider 13 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 2022) is 0.0157 cents per kWh.

30. The reasonable and prudent Rider 13 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 2022) is (0.0000) cents per kWh.

31. 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.

32. The Company should proceed with the proposed non-energy benefits (NEBs) and lower and moderate income (LMI) studies.

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 "[a]ppropriate 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 Commission-approved Mechanisms, the Company filed an application for approval of such annual rider, designated by DEC as Rider 13. The cost recovery and utility incentives the Company seeks through Rider 13 are based on the Company recovering DSM/EE program costs, NLR, a PPI incentive related to the DSM and EE programs, as approved in the 2013 Sub 1032 Order, and a PRI incentive as approved in the 2020 Sub 1032 Order, and those programs approved following the 2013 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 Listebarger, the testimony of Public Staff witness Williamson, and various Commission orders.

DEC witnesses Listebarger's and Evans's testimony and exhibits show that the Company's request for approval of Rider 13 is associated with the Sub 1032 portfolio of programs, as well as the programs approved by the Commission after the 2013 Sub 1032 Order. The direct testimony and exhibits of DEC witness Evans listed the applicable DSM/EE programs as follows: Energy Assessment Program; EE Education Program; Energy Efficient Appliances and Devices Program; Residential Smart $aver EE Program; Multifamily EE Program; My Home Energy Report Program; Income-Qualified EE and Weatherization Program for Individuals; Neighborhood Energy Saver 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; Small Business Energy Saver; EnergyWise for Business Program; and Non-Residential Smart $aver Performance Incentive Program. (Evans Direct at 11-12.)

In his testimony, Public Staff witness Williamson listed the same DSM/EE programs as those for which the Company seeks cost recovery. (Williamson Direct at 5-6.)

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 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, the testimony of NC Justice Center, *et al.*, witness Bradley-Wright, the 2017 Mechanism and the 2020 Mechanism.

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 2022 period, the results of which are incorporated in Evans Exhibit No. 7. (Evans Direct at 13.) Company witness Evans testified that, effective 2022, the UCT replaces the TRC for use in screening DSM/EE programs. 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), EnergyWise for Business Program, and the Information Technology element of the Non-Residential Smart $aver Program, the aggregate portfolio continues to project cost-effectiveness. He testified that eliminating the EnergyWise for Business Program at this time would not be appropriate because the forecasted UCT did not reflect a recent 100 percent increase in average energy savings. Moreover, witness Evans stated that the Company intended to freeze participation levels in the interim and to modify the program to exceed a 1.0 on the UCT. With respect to the Information Technology element of the Non-Residential Smart $aver Program, witness Evans explained that termination of this element would be inappropriate because it was only a measure category in a much larger, cost-effective program. Based on witness Evan's review of the cost-effectiveness tests, the Company did not find it reasonable to discontinue any of the programs or measures at this time. He indicated that the Company would continue, however, to examine its programs for potential modifications to increase their effectiveness, regardless of the current cost-effectiveness results. (Evans Direct at 13-15.)

NC Justice Center, *et al.*, witness Bradley-Wright testified that DEC's DSM/EE portfolio is cost-effective and is delivering impressive financial value to customers during the pandemic. He noted that in 2020, the Company's DSM/EE portfolio scored a 2.96 UCT score and 2.81 TRC test score. He acknowledged that the net present value of avoided costs had decreased in 2020; nevertheless, it still amounted to approximately $328 million of financial benefit for customers. (Bradley-Wright Direct at 7-8.)

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 test, Participant test, and RIM test. (Williamson Direct at 6.) 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. (Williamson Direct at 8.) Witness Williamson testified that while many programs continue to be cost-effective, the TRC and UCT 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 9). 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, 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 DSM/EE portfolio: The Residential Smart $aver EE Program; the Residential Smart Saver EE Program's Referral Channel; and the MyHER Program.

1. Residential Smart $aver Program

Public Staff witness Williamson testified that the cost-effectiveness of the Residential Smart $aver Program, as shown on Evans Exhibit No. 7, demonstrates a TRC value of 0.8 and a UCT of 1.02. He noted that the cost-effectiveness of this program has vacillated around 1.0 for several years under both the UCT and the TRC tests. Witness Williamson reported that the Public Staff recognized that encouraging the adoption of high efficiency heating and cooling systems is a fundamental part of the Company's EE portfolio. Because of the fluctuations in cost-effectiveness and the importance of maintaining a high efficiency space heating/cooling program in the portfolio, the Public Staff was reluctant to recommend termination of the program. Witness Williamson committed the Public Staff to monitoring the program and to working with the Company and EE Collaborative to build sustained cost-effectiveness. (Williamson Direct at 12-13.)

The Commission finds and concludes that no changes to the Residential Smart $aver Program are required at this time. The Commission agrees with the Public Staff that encouraging the adoption of high efficiency heating and cooling systems is a fundamental part of the Company's EE portfolio. Although the cost-effectiveness of the program has vacillated in the past, it now demonstrates a 1.02 on the UCT, which is the appropriate cost-effectiveness test under the 2020 Mechanism. Nevertheless, the Commission finds it appropriate that the Public Staff continue to monitor the program and work with the Company and the EE Collaborative to continue to try to build sustained cost-effectiveness.

2. Residential Smart $aver EE Program's Referral Channel – Find it Duke

Public Staff witness Williamson testified that, in the last few years, the Company had transitioned its referral channel for the Residential Smart $aver program into a broader channel called Find it Duke (FID), providing referrals for services that were both EE and non-EE related. He noted that Company customers and non-customers needing a contractor for one of the FID listed services may contact Duke Energy for recommendations related to both residential and non-residential projects. Contractors pay a fee to the Company to participate in the referral program. Both Public Staff witnesses Williamson and Maness agreed that all of the revenues resulting from these fees flow into the Residential Smart $aver Program, but they both noted that some of the services included in the referrals, such as building electrical sources, solar installation, and tree removal services, were not related to EE measures. (Williamson Direct at 22 and Maness Direct at 17.) Witness Williamson also testified that the Public Staff had heard in a stakeholder meeting that the Company intended to use FID to provide referrals to customers regarding installations of electric vehicle charging stations. He expressed concern that the FID channel allows all benefits to flow to the Residential Smart $aver Program, which is a residential EE program for DEC customers, when the work is not always done for an EE installation, a residential customer, or a customer of Duke Energy. Consequently, he recommended that the Company refine its referral channel accounting to allow only referral dollars specifically related to Residential EE work to be included in the referral channel for Residential Smart $aver and book other revenues appropriately. (Williamson Direct at 21-22.) Witness Maness agreed with this recommendation and further recommended that the Company refine its referral channel accounting to properly assign, apportion, and allocate costs to DSM/EE and non-DSM/EE efforts. He acknowledged that the assignment may require estimates and approximations, but maintained that this effort is highly likely to produce a better result than the current approach of simply assigning all of the costs and revenues to the Residential Smart $aver Program. (Maness Direct at 19.)

In his rebuttal testimony, Company witness Evans disagreed with the Public Staff's recommendation that DEC refine its referral channel accounting to allow only referral dollars specifically related to residential EE-related work to be included in the referral channel accounting for the Residential Smart $aver Program, and to book other revenues from FID differently. He explained his view that this recommendation would negatively impact the cost-effectiveness of the Residential Smart $aver Program, a program designed to encourage customers to adopt high efficiency heating and cooling systems. According to witness Evans FID was developed to help augment the cost-effectiveness of the Residential Smart $aver Program, and he testified that it had succeeded. He explained that the net proceeds from FID activities offset Residential Smart $aver Program costs thus enhancing the cost-effectiveness of the Program, i.e., FID allows the Residential Smart $aver Program benefits to exceed the Program costs. He testified that at the present time the Program is cost-effective with an anticipated UCT score that barely exceeds 1 (the minimum score necessary to establish cost-effectiveness using the UCT screen, the test used to measure cost-effectiveness under the approved 2020 Mechanism).

Witness Evans disagreed with the Public Staff's recommendation that FID costs not related to EE should be booked in non-EE accounts. He testified that while in 2020, three referral categories, electrical services, residential solar, and tree services, did not relate to energy efficiency, they had not been shown or alleged to have increased the cost of service or to have impaired the quality of service of the energy efficiency related offerings. He further testified that no additional costs are incurred for these non-energy efficiency related referrals. He noted that the FID platform uses existing functionality to name additional services, which allows the program to expand the total number of services the Company's Trade Ally Network offers. He added that the additional services capture additional revenue thus resulting in reduced annual flat fees associated with all referral generation. Witness Evans offered his opinion that it would be appropriate not to engage in the difficult, "nearly impossible" task of accounting for the differences between energy efficiency and non-energy efficiency related costs and revenues because trade allies who pay annual fees for referrals, perform both non-EE and EE work and each referral could result in either non-EE or EE work. Rather than increase the cost and complexity of accounting by tracking these differences and potentially have to retire the RSS Program for no longer being cost effective under the UCT screen, witness Evans maintained that the existing accounting structure is appropriate and is for the benefit of the Company's customers. (Evans Rebuttal at 5-7.)

On May 26, 2021, the Company and the Public Staff jointly filed a letter to notify the Commission that DEC and the Public Staff have reached an agreement regarding the FID referral channel. The Public Staff and the Company agreed to work to resolve the issues related to the FID referral channel in the coming months and report on these efforts in their testimony filed in the 2022 DSM/EE Rider proceeding. Thus, for purposes of this 2021 DSM/EE Rider proceeding (Docket No. E-7, Sub 1249), the Public Staff and DEC agreed that DEC should not be required to make any changes to its accounting related to FID costs or revenues at this time.

Discussion

In DEC's answers to the Commission's questions about FID, DEC provided the following statistics about the FID in 2020 (with the question/answer number in brackets):

(1) number of businesses participating – 83 [No. 6]

(2) number of DEC ratepayers that contracted with an FID business solely for EE improvements – 5,112 [No. 9]

(3) number of DEC ratepayers that contracted with an FID business for EE improvements and non-EE improvements – 7,100 [No. 10]

(4) number of DEC ratepayers that contracted with an FID business solely for non-EE improvements – 1,988 [No. 11]

(5) number of non-DEC ratepayers that contracted with an FID business through an FID referral – 3,500 [No. 13]

(6) DEC's total cost of operating FID - $775,172 [No. 17]

(7) DEC's total revenue from operating FID - $461,083 [No. 18]

In response to several Commission questions about recruitment of and participation in FID by historically disadvantaged businesses, DEC stated that it has not acquired such information, but is working with Duke Energy's Supplier Diversity team to collect this data in the future.

According to DEC's responses to the Commission's questions and as indicated above, DEC made 1,988 FID referrals to DEC ratepayers solely for non-EE work in 2020. In addition, 3,500 referrals were made to non-DEC ratepayers. The Commission determines that collectively, these referrals represent a substantial portion of the total FID referrals made during 2020. The Commission understands DEC's position that there are some efficiencies and conveniences to be gained, for contractors and ratepayers alike, in making both EE and non-EE referrals. The Commission further understands that non-DEC ratepayers would also find the FID referral information easily accessible and beneficial to utilize. However, such benefits do not justify DEC's request to recover the cost of referrals for non-EE services and referrals to non-DEC customers from DEC ratepayers through the EE rider. The purpose of the EE rider is to allow DEC to recover from its ratepayers costs and appropriate incentives for implementing EE programs that achieve EE savings. Contractor referrals that include non-EE work only partially serve this purpose. Moreover, the EE rider is not paid by non-DEC ratepayers nor by those commercial and industrial customers that have opted out of participating in DEC's EE programs. As a result, to the extent that any opt-out customers and any non-DEC ratepayers may use the FID referral channel, they are receiving the benefits of FID, but are not paying the costs, thus leaving DEC ratepayers alone to pay for cost recovery under the EE rider.

One of the guiding principles of utility ratemaking is that ratepayers should pay the costs of the services caused by them. The Commission makes no judgment in this proceeding about whether it might be appropriate for DEC to recover the costs of FID referrals for combined EE and non-EE improvements and FID referrals to non-ratepayers in DEC's base rates. Suffice it to say that the Commission is convinced that DEC should not be allowed to recover such costs through its EE rider.

Finally, the Commission has considered witness Evans's testimony that the cost and complexity of accounting and tracking will be increased if the Company is required to track non-EE referral costs and revenues and non-DEC ratepayer costs and revenues but concludes that this complexity is outweighed by the guiding principle of utility ratemaking that ratepayers should pay the costs of the services caused by them, particularly given that the EE rider is paid only by certain of the Company's customers. Ultimately, it is DEC's burden in this proceeding to prove that the costs and EE incentives it seeks to recover are reasonable and appropriate for recovery from its ratepayers through the EE rider. A part of that burden is to maintain its accounting records so that this information can be effectively audited by the Public Staff.

Based on the foregoing, the Commission concludes that it is not appropriate for DEC to recover through its EE rider costs of FID referrals made either to persons who are not DEC ratepayers, or for non-EE work. Therefore, DEC should remove these costs and revenues from its EE rider application and calculations in this docket, and in future EE rider proceedings. DEC should work with the Public Staff to revise the billing factors impacted by the removal of the FID revenues and costs disallowed for inclusion in the EE rider herein and file its updated billing factors and the proposed Notice to Customers with the Commission. Further, DEC should file its calculations and workpapers clearly showing the costs and revenues excluded and the method(s) used to exclude such amounts from the EE rider.

In addition, the Commission concludes that DEC should include the information requested by the Commission about recruitment of and participation in FID by historically disadvantaged businesses in DEC's testimony in its 2022 EE rider proceeding.

3. MyHER

Public Staff witness Williamson testified that the Public Staff has expressed concern about potential overlap between the MyHER program and AMI capabilities in the past several proceedings. He again expressed those concerns by reiterating that DEC has installed smart AMI meters across its territory and that customers are now able to monitor their usage through a smart phone app.

Additionally, DEC provides customers tips on how to lower their bills through a number of means outside of the MyHER program. Witness Williamson predicted that, as more data analytics are applied to the system, a more sophisticated and rigorous EM&V will be necessary to determine how much the market has transformed and how baselines have changed as the capabilities that AMI meters provide are realized and more analytics are applied. He stressed the importance of EM&V determining the impact of usage information gleaned from AMI and energy tips versus information provided only through MyHER so that customers do not overpay. Witness Williamson noted that the next EM&V report for MyHER is scheduled for the fourth quarter of 2021. He did not recommend any changes to the MyHER program at this time, however.

Witness Bradley-Wright also expressed concern that the savings from MyHER made up 51% of reported system energy reductions. He urged the Company to continue to focus on capturing additional measures that are capable of achieving deep and longer-lived savings to maintain a more balanced and robust program portfolio going forward. He recommended adding or modifying programs that target the largest residential end uses of electricity, such as space heating, cooling, and water heating. (Bradley-Wright Direct at 8.)

Witness Evans's Exhibit 6 described the approved MyHER program as a periodic usage report that compares a customer's energy use to energy usage levels for similar residences in the same geographical area based upon the age, size, and heating source of the home. The report includes recommendations to encourage energy saving behaviors. According to DEC, the report delivers energy savings by encouraging customers to alter their energy usage. A customer's usage is compared to the average homes (top 50%) in the nearby area, as well as the efficient homes (top 25%). It also suggests energy efficiency improvements, given the usage profile for that home. In addition, the report recommends measure-specific offers, rebates, or audit follow-ups from the Company's other programs, based on the customer's energy profile. The MyHER interactive online portal allows customers to learn more about their energy use and about opportunities to reduce their usage. Customers can set goals, track their progress, and receive more targeted tips. As of December 31, 2020, over 120,000 single-family customers and over 15,000 multifamily customers were enrolled on the portal. (Evans Exhibit 6 at 25.)

Based on the foregoing, the Commission agrees with the Public Staff that EM&V should be utilized to the extent feasible to assess the impact interval energy usage information gleaned from AMI and energy tips have on customers versus the engagement education and empowerment around EE provided through the MyHER program.

Conclusions

Based upon the forgoing, the Commission concludes that for purposes of inclusion in Rider 13, the Company's aggregate DSM/EE portfolio projects cost-effectiveness, and that it will not direct the Company to modify or terminate any of its DSM/EE programs in this proceeding. As witness Evans noted, the Income-Qualified EE and Weatherization Program was not cost-effective when it was approved and is not required to be cost-effective in the 2017 or 2020 Mechanism. With respect to EnergyWise for Business, as stated by Company witness Evans, the Company intends to modify the program to achieve cost-effectiveness. With respect to the Information Technology element of the Non-Residential Smart $aver program, it is only a measure in a larger, cost-effective program. Moreover, no party recommended terminating or excluding these programs or measures or any programs or measures from Rider 13. The Commission encourages the Company to continue to leverage its existing programs and explore developing additional programs that cost effectively target the largest residential end uses of electricity, such as space heating, cooling, and water heating. The DSM/EE portfolio is approved without modification for inclusion in Rider 13.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 10-11

The evidence in support of these findings and conclusions can be found in the testimony and exhibits of DEC witness Evans and the testimony and exhibits 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 13 incorporates actual customer participation and evaluated load impacts determined through EM&V and applied pursuant to the EM&V Agreement. In addition, actual participation and evaluated load impacts are used prospectively to update estimated NLR. (Evans Direct at 18.) In this proceeding, the Company submitted as exhibits to witness Evans' testimony detailed, completed EM&V reports or updates for the following programs: Save Energy and Water Kit: 2018-2019 (Evans Exhibit A); Multifamily Energy Efficiency Program: 2017-2019 (Evans Exhibit B); and Non-Residential Smart $aver Prescriptive Program Evaluation, 2017-2018 (Evans Exhibit C). (Evans Direct at 18-20.)

In his testimony, Public Staff witness Williamson recommended that based on his review of the EM&V reports filed in this proceeding, labeled as Evans Exhibits A through C, the reports should be considered complete. (Williamson Direct at 23.) He had two specific recommendations regarding the EM&V reports he reviewed. First, for the Save Energy and Water Kit (SEWK) Program, he noted that the savings and impacts were evaluated by Nexant for the period of September 2018 to August 2019. The Public Staff discovered a discrepancy between the savings resulting from the engineering analysis that was applied to these measures and the billing analysis. The Public Staff recommended that the SEWK Program report be accepted in this proceeding with the condition that further reports presented by DEC that have discrepancies between the billing and engineering analyses explain why a particular analysis was chosen for that report. (Williamson Direct at 24-25.) Second, for the Non-Residential Smart $aver Prescriptive Program, witness Williamson noted that the data recording process for this evaluation could be optimized, specifically for lighting-related measures, because these measures provide much of the total savings associated with the program. He indicated that while the measures were accounted for properly, the Company and its evaluator should work to refine how the Company records its measures level impacts for this program. (Williamson Direct at 25.)

In his rebuttal testimony, Company witness Evans indicated that he agreed with witness Williamson's recommendations on the SEWK and the Non-Residential Smart $aver Prescriptive programs. He indicated that the Company would continue to work with the respective third-party evaluator when determining the impacts for future SEWK program evaluations. Where discrepancies between billing impacts and engineering impacts exist, the evaluator will provide the rationale in the report on why a specific analytical method was selected. Moreover, witness Evans testified, the Company will continue to work with the program evaluator and team to refine, if possible, how the Company records measure level impacts, particularly lighting measure impacts, for the Residential Smart $aver Prescriptive program. (Evans Rebuttal at 7-8.)

Conclusions

No party contested the EM&V information submitted by the Company, and the Company has agreed to the recommendations of Public Staff witness Williamson with respect to future EM&V reports. The Commission therefore finds that the EM&V reports filed as Evans Exhibits A, B, and C 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. 12

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

Company witness Evans recounted that in the Commission's Sub 1230 Order, the Commission had directed the Company to (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. Therefore, witness Evans explained in his direct testimony that as GIP is implemented, any impacts on DSM/EE will show up in the individual DSM/EE program results. He noted the EM&V process is important because the GIP's impacts could vary by measure and program. Only DEC's Integrated Volt Var (IVVC) program within the GIP is expected to result in demand and energy savings; those will be measured and documented within the Company's GIP reporting. Witness Evans further described the capacity component of the Self Optimized Grid (SOG) program, which includes reconductoring power lines to larger size wires to accommodate two-way power flow. This upgrade reduces line losses on the distribution circuitry. These efficiencies from SOG, with efficiencies gained from other maintenance activities on the distribution system, are captured in periodic line losses. Witness Evans reported that DSM/EE uses the line loss in the analysis; therefore, SOG adds no impact. Witness Evans further explained that IVVC would operate in Conservation Voltage Reduction (CVR) mode most of the time, year-round. CVR functionality would target an approximate 2% voltage reduction on the distribution retail substations and circuits within the scope of implementation, while maintaining voltage within the regulatory limits for all customers. Lowering the distribution feeder results in a reduction of system loading, creating the benefit of decreased generation. He noted that during 2020, the Company started circuit conditioning and substation upgrades necessary for IVVC; however, no circuits were scheduled to come under IVVC control in 2020. (Evans Direct at 8-9.)

Public Staff witness Williamson testified that, with respect to the SOG program, line losses are a function of the lost energy experienced between the meter and generation source. Any improvements to line losses would manifest in reduced energy requirements at the generation level; conversely, energy reductions at the generator level that provide for sales at the meter would likely reduce lost revenues and PPI. In isolation, this would reduce the DSM/EE rider itself. Witness Williamson noted, however, that this effect may be wholly or partially offset by the baseline impact of SOG on energy sales. SOG, like other GIP work that is designed to increase reliability, will ultimately increase the amount of time that EE measures can operate, thereby increasing the savings potential, as well as the lost revenues and PPI to be collected by the Company. Witness Williamson also testified that, with respect to the CVR program, a consistently lower voltage on the distribution system does not directly translate to peak demand or energy savings, even though there is a decreased generation need. Witness Williamson acknowledged that whether CVR impacts kWh savings from DSM/EE remains to be seen. (Williamson Direct at 26-27.) Witness Williamson concluded that the Public Staff would continue to work with DEC to ensure GIP reporting will include metrics that will assist in determining the potential impacts on the DSM/EE portfolio. (*Id*. at 27-28.)

The Commission notes that both witness Evans and witness Williamson stressed the importance of EM&V in determining the impacts, if any, that GIP has on DEC's DSM/EE portfolio. Therefore, based on the foregoing, the Commission concludes that the Public Staff should continue to work with DEC to ensure that GIP reporting will include metrics that will assist in determining the impacts on DEC's DSM/EE portfolio.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 13-30

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

On February 23, 2021, DEC filed its Application seeking approval of Rider 13, which includes the formula for calculation of Rider EE, as well as the proposed billing factors to be effective for the 2022 rate period. Company witness Listebarger testified that the methods by which DEC has calculated its proposed Rider EE are consistent with the 2013 Sub 1032 Stipulation and the Mechanism, as approved in the 2013 Sub 1032 Order, and the 2020 Sub 1032 Order. She clarified that the 2013 Sub 1032 Stipulation remains in effect; however, the 2020 Mechanism applies prospectively to costs projected in 2022. (Listebarger Direct at 4.)

Witness Listebarger and witness Evans each provided an overview of the Mechanism, which is designed to allow the Company to collect revenue equal to its incurred program costs[7] 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. (Listebarger Direct at 4-9; Evans Direct at 25.) Witness Listebarger 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%. Under the 2020 Mechanism, however, this percentage is lowered to 10.6%, starting in 2022. (Listebarger Direct at 9.) In addition, 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. (Evans Direct at 25-26.) Witness Evans further explained that, consistent with the Sub 1032 Orders, DEC has excluded the impacts from the Income-Qualified EE and Weatherization Program for Individuals from its calculation of the PPI. At the time the program was approved, it was not cost-effective, but was approved based on societal benefit. The system amount of PPI is then allocated to North Carolina retail customer classes to derive customer rates. (Listebarger Direct at 9-11.) Under the 2020 Mechanism beginning in 2021, the Income-Qualified EE and Weatherization programs are eligible to receive a PRI. (Evans Direct at 26.)

Witness Listebarger explained that in each of its annual rider filings DEC performs an annual true-up process for the prior calendar year vintages. 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. In accord with the 2020 Sub 1032 Order, DEC continues to apply EM&V in accordance with the EM&V agreement. The Company

[7] 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.

expects that most EM&V will be available in the timeframe needed to true-up each vintage in the following calendar year. If any EM&V results for a vintage are not available in time for inclusion in DEC's annual rider filing, however, the Company will make an adjustment in the next annual filing. (Listebarger Direct at 5-6.)

Witness Listebarger further explained that deferral accounting may be used for over and under recoveries of costs eligible for recovery through the annual DSM/EE rider. (Listebarger Direct at 5-6.) 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*.) 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(c)(3), the Company will not accrue a return on NLR or the PPI. (*Id*.)

Witness Listebarger testified that under the 2013 Sub 1032 Stipulation and the Sub 938 First Waiver Order, qualifying non-residential customers may opt out of the DSM and/or EE portion of Rider EE during annual election periods. She 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 Listebarger explained that the Mechanism affords an additional opportunity for participation whereby qualifying customers may opt into the Company's EE and/or DSM programs during the first five business days of March. (Listebarger Direct at 12-13.) 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. (Listebarger Direct at 13.)

Witness Listebarger further testified that 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. She explained that for the prospective components of Rider EE, NLR are estimated by multiplying the portion of the Company's tariff rates that represents 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. She 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 non-residential customers are then reduced by North Carolina retail found revenues computed using the weighted average lost revenue rates for each customer class. (Listebarger Direct at 10.) Witness Listebarger noted that residential and non-residential lost revenues associated with participants enrolled during the test period, the 12 months ending December 31, 2018, extended to May 31, 2020, of the Company's general rate case proceeding, Docket No. E-7, Sub 1214 (Sub 1214), have been adjusted based on specific enrollment dates, and a portion of these lost revenues have been removed from the prospective period as of August 24, 2020, and included in interim rates. 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. (Listebarger Direct at 10-11.)

Witness Listebarger also testified about how excess deferred income taxes resulting from passage of the federal Tax Cuts and Jobs Act (TCJA) had been incorporated into the calculation of NLR. She stated that in the first partial settlement between the Company and the Public Staff (Stipulating Parties), filed on March 25, 2020, in Sub 1214,[8] the Stipulating Parties agreed that DEC would refund certain amounts owed to customers related to excess deferred income taxes (EDIT), resulting from the reduction in federal corporate income taxes according to the TCJA, through a reduction in base rates rather than through a rider. The refunded amounts are the "protected" EDIT amounts, generally related to Property, Plant and Equipment, for which there are specific ratemaking requirements prescribed by the IRS. Lost revenue rates for 2020 have been trued up to reflect the settlement, and the projected 2022 lost revenue rates also reflect the settlement. (Listebarger Direct at 12.)

Witness Evans described how, in accordance with the Sub 831 Settlement, the Commission's Sub 831 Found Revenues Order, and the 2013 Sub 1032 Stipulation, DEC reduces NLR by net found revenues. (Evans Direct at 22-23.) 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, 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 light-emitting diode (LED) fixtures. (*Id*.)

Witness Listebarger 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. (Listebarger Direct at 8.) 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. (Listebarger Direct at 8-9.)

[8] This first partial settlement between DEC and the Public Staff was approved by the Commission in its March 31, 2021 *Order Accepting Stipulations, Granting Partial Rate Increase, and Requiring Customer Notice.*

For DSM programs, witness Listebarger 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. (Listebarger Direct at 9.) 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 Listebarger 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. (Listebarger Direct at 9.)

Witness Listebarger 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. (Listebarger Direct at 6.) 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 13

Witness Listebarger testified that Rider 13 consists of five prospective components: (1) a prospective Vintage 2022 component designed to collect program costs and the PPI for DEC's 2022 vintage of DSM programs; (2) a prospective Vintage 2022 component to collect program costs, the PPI, PRI and the first year of NLR for DEC's 2022 vintage of EE programs; (3) a prospective Vintage 2021 component designed to collect the second year of estimated NLR for DEC's 2021 vintage of EE programs; (4) a prospective Vintage 2020 component designed to collect the third year of estimated NLR for DEC's 2020 vintage of EE programs; and (5) a prospective Vintage 2019 component designed to collect the fourth year of estimated lost revenues for DEC's 2019 vintage of EE programs. (Listebarger Direct at 7.)

Pursuant to the Sub 938 Second Waiver Order and the 2020 Sub 1032 Order, the rate period for the prospective components of Rider 13 is January 1, 2022, through December 31, 2022. (*Id.* at 14.)

The prospective revenue requirements for Vintage 2019 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 2019 EE programs. The amounts are based on estimated North Carolina retail kW and kWh reductions and DEC's interim rates, which became effective August 24, 2020, under the Commission's August 6, 2020 Order Approving Public Notice of Interim Rates Subject to Refund And Financial Undertaking in, Sub 1214 (Interim Rate Order), adjusted to only recover the fixed cost component. (*Id*.) Certain residential and non-residential lost revenues associated with vintages through the test period June 1, 2019, through May 31, 2020, of the Company's general rate case filed in Sub 1214, have been removed from the prospective period as of August 24, 2020, as new interim rates recover the NLR associated with those specific kWh sales reductions. (*Id*.)

For Vintage 2020, the Company determined the estimated prospective revenue requirements separately for residential and non-residential customer classes and based them on the third 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 interim rates, which became effective August 24, 2020, under the Commission's Interim Rate Order, adjusted as described above to recover only the fixed cost component. Certain residential lost revenues through the updated test period June 1, 2019, through May 31, 2020, of the general rate case filed in Sub 1214 have been removed from the prospective period as of August 24, 2020, assuming new interim base rates recover the NLR associated with those specific kWh sales reductions. (*Id.* at 14-15.)

Witness Listebarger also explained that the Company determined the estimated prospective revenue requirements for Vintage 2021 separately for residential and non-residential customer classes and based them on the second year of NLR for its Vintage 2021 EE programs. The amounts are based on estimated North Carolina retail kW and kWh reductions and DEC's interim rates, which became effective August 24, 2020, pursuant to the Commission's Interim Rate Order, adjusted to only recover the fixed cost component. Certain residential lost revenues through the updated test period June 1, 2019, through May 31, 2020, of the Sub 1214 general rate case have been removed from the prospective period as of August 24, 2020, assuming new interim base rates recover the NLR associated with those specific kWh sales reductions. (*Id.* at 15.)

With respect to Vintage 2022, witness Listebarger described the basis for the rate period prospective revenue requirements. She testified that the estimated prospective revenue requirements for Vintage 2022 EE programs include program costs, PPI, PRI, and the first year of NLR determined separately for residential and non-residential customer classes. The estimated prospective revenue requirements for Vintage 2022 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 in witness Listebarger's direct testimony. The amounts are based on estimated North Carolina retail kW and kWh reductions and DEC's interim rates, which became effective August 24, 2020, pursuant to the Commission's Interim Rate Order, adjusted to only recover the fixed cost component. (Listebarger Direct at 16.)

The Company's proposed initial billing factor for the Rider 13 prospective components is 0.4255 cents per kWh for DEC's retail residential customers[9]. For non-residential customers, the amounts differ depending on the customer elections of participation. Witness Listebarger provided a chart to depict the options and rider amounts.

Non-residential Billing Factors for Rider 13 Prospective Components	**Cents/kWh**
Vintage 2019 EE participant	0.0122
Vintage 2020 EE participant	0.0411
Vintage 2021 EE participant	0.0813
Vintage 2022 EE participant	0.4102[10]
Vintage 2022 DSM participant	0.1038

EMF Components of Rider 13

Rider 13 includes the following EMF components: (1) a true-up of Vintage 2017 lost revenues; (2) a true-up of Vintage 2018 lost revenues, PPI and participation for DSM/EE programs based on additional EM&V results received; (3) a true-up of Vintage 2019 PPI, participation, and lost revenues for DSM/EE programs based on additional EM&V results received; and (4) a true-up of Vintage 2020 program costs, PPI, and lost revenues for DSM/EE programs. (Listebarger Direct at 7.)

Witness Listebarger testified that pursuant to the Sub 938 Second Waiver Order and the 2013 Sub 1032 Stipulation, the "test period" for the Vintage 2020 EMF component is January 1, 2020, through December 31, 2020. As the Sub 938 Second Waiver Order allows the EMF to cover multiple test periods, the test period for the Vintage 2019 EMF component is January 1, 2019, through December 31, 2019; the test period for the Vintage 2018 EMF component is January 1, 2018, through December 31, 2018; and the test period for the Vintage 2017 EMF component is January 1, 2017, through December 31, 2017. (Listebarger Direct at 17.)

Witness Listebarger outlined the updates to the Vintage 2020 estimate filed in 2019 that comprise the Vintage 2020 EMF component of Rider 13. The second year of NLR for Vintage 2020, which are a component of Rider 12 billings during 2021, will be trued up to actual amounts during the next rider filing. Estimated participation for Vintage 2020 was updated for actual participation for the period January 2020, through December 2020. Regarding NLR, estimated participation for the Year 1 Vintage 2020 estimate assumed a January 1, 2020 sign-up date and used a half-year convention, while the NLR Year 1 Vintage 2020 true-up was updated for actual participation for the period January through December 2020 and actual 2020 lost revenue rates. Found revenues for Year 1 of Vintage 2020 were trued up according to Commission approved guidelines. To reflect the results

[9] This billing factor excludes the impact of any application of the RMAF methodology; such impact is to be included in the eventual Vintage Year 2022 true-up, as is further discussed herein.

[10] This billing factor excludes the impact of any application of the RMAF methodology; such impact is to be included in the eventual Vintage Year 2022 true-up, as is further discussed herein.

of EM&V, Vintage 2020 estimated load impacts were updated pursuant to the EM&V Agreement. Finally, while the Vintage 2020 estimate included only the programs approved prior to the filing of the estimated Vintage 2020 revenue requirement, the Vintage 2020 true-up was updated for new programs and pilots approved and implemented during Vintage 2020. For DSM programs, the Vintage 2020 true-up reflects the actual quantity of demand reduction capability for the Vintage 2020 period. (*Id.* at 17.)

Actual Year 1 (2020) NLR for Vintage 2020 were calculated using actual kW and kWh savings by North Carolina retail participants by customer class in 2020, based on actual participation and load impacts applied according to the EM&V Agreement. The rates applied to the kW and kWh savings are those in effect for 2020, reduced by fuel and variable operation costs. (The lost revenues were then offset by actual found revenues for Year 1 of Vintage 2020, as explained by witness Evans. NLR were calculated by rate schedule within the residential and non-residential customer classes.) (*Id.* at 18-19.)

Witness Listebarger also described the basis for the Vintage 2019 EMF component of Rider 13. She explained that avoided costs and NLR for Vintage 2019 EE programs were trued up based on updated EM&V participation results and the impacts of Sub 1214. The actual kW and kWh savings were as experienced during the period January 1, 2019, through December 31, 2019. 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 19.)

Witness Listebarger explained the basis for the Vintage 2018 EMF component of Rider 13. (*Id*.) She explained that all years were trued-up based on updated EM&V results. 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. (Listebarger Direct at 19.)

With respect to Vintage 2017, Witness Listebarger testified that NLR for all years were trued-up on based on updated EM&V results. The actual kW and kWh savings were as experienced during the period January 1, 2017, through December 31, 2017. The rates applied to 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 20.)

Witness Listebarger’s direct testimony and exhibits reflected EMF billing factors for Rider 13 of 0.0517 cents per kWh for all North Carolina retail residential customers, (0.0000) cents per kWh for non-residential Vintage 2017 DSM participants, 0.0157 cents per kWh for non-residential Vintage 2017 EE participants, 0.0019 per kWh for non-residential Vintage 2018 DSM participants, 0.0030 cents per kWh for non-residential Vintage 2018 EE participants, (0.0015) cents per kWh for non-residential Vintage 2019 DSM participants, (0.0422) cents per kWh for non-residential Vintage 2019 EE participants, (0.0113) cents per kWh for non-residential Vintage 2020 DSM participants and (0.0856) cents per kWh for non-residential Vintage 2020 EE participants. (*Id.* at 21.)

Application of Reserve Margin to Avoided Capacity Costs

Witness Evans testified that because the Commission did not approve the Company's use of a Reserve Margin Adjustment Factor (RMAF) to the avoided capacity values associated with the EE savings in its 2020 application, the Company has included in its current application a projection of avoided costs both with and without the utilization of an RMAF. He explained that the Company proposed to apply the RMAF to the avoided cost values associated with EE savings starting with Vintage 2022. (Evans Rebuttal at 3.) Witness Evans listed four facts that substantiated and supported the magnitude of the RMAF that it is proposing to be applied to the capacity savings associated with EE savings in the projection of Vintage 2022. First, the Company's Integrated Resource Plan (IRP) included a 17% reserve margin. Second, the EE measures included in the Company's DSM portfolio are assigned peak kW reductions, subject to validation through routine EM&V. Third, the avoided capacity rate to be applied in valuation of these peak kW reductions complies with the methodology approved in the 2020 Sub 1032 Order. Fourth, the approved avoided capacity rate includes a Performance Adjustment Factor (PAF) of 1.05, and the PAF is intended to represent an estimated Equivalent Forced Outage Rate. Because of these facts, witness Evans testified that the Company has proposed to apply an 11.429% RMAF to the capacity savings associated with EE programs. (Evans Direct at 29.)

Witness Evans further explained how the 11.429% RMAF was determined based on the facts of this proceeding. Because the RMAF could be considered to represent a portion of the Company's reserve margin, the Company has reduced the RMAF by the PAF, which already reflected a portion of the reserve margin. Thus, witness Evans testified that the RMAF is calculated by dividing the sum of 1 plus the reserve margin by the sum of 1 plus the PAF, as shown by (1+0.17)/(1+0.05) = 1.11429. (Evans Direct at 29-30.) The impact of applying the RMAF on the net present value of the avoided costs associated with the Vintage 2022 portfolio results in the recognition of an additional $5,942,245 of the projected system avoided cost benefit from the Vintage 2022 Portfolio, as reflected on Evans Exhibit 14. DEC and DEP shared this information with the DSM/EE Collaborative at its January 29, 2021 meeting, and no parties voiced disagreement. (*Id.* at 30.)

In his rebuttal testimony, witness Evans noted the Public Staff's agreement with the use of the RMAF, but noted that the Company did not include the revenue requirement changes associated with the RMAF in the rate notification provided to customers. Therefore, the Company stated its preference to defer recovery of the estimated $461,205 RMAF related revenue requirement shortfall until a subsequent true-up of Vintage 2022 is made in the Rider 15 filing. This approach negates the need for customer renotification and allows for time to memorialize the RMAF provisions into the 2020 Mechanism as requested by the Public Staff. (Evans Rebuttal at 4.)

Company witness Listebarger filed Rebuttal Testimony and updated rebuttal exhibits 1-6 to reflect the Public Staff's acceptance of the inclusion of the RMAF in rates. (Listebarger Rebuttal at 2.)

Public Staff witness Williamson agreed with the Company's RMAF modification. He described the RMAF adjustment as an adder to the avoided capacity benefits associated with the demand reductions of EE measures on the system. No RMAF adjustment is made to the avoided capacity benefits generated from DSM programs as they are treated as resources for planning purposes. Instead the RMAF adjustment is intended to align how the reserve margin is impacted by the inclusion of EE on the system. Witness Williamson likened the application of the RMAF percentage being applied to the capacity benefits of EE programs much like the PAF is applied to avoided capacity benefits provided by QFs that are compensated under a standard offer contract under the Public Utility Regulatory Policies Act. Witness Williamson noted that, to account for the PAF, the Company has proposed removing the impacts associated with the PAF from the Company's 17% reserve margin target, resulting in an RMAF percentage of 11.429%. (Williamson Direct at 16-17.)

Although Public Staff witness Williamson agreed with the Company's proposed RMAF adjustment, the Public Staff opposed the Company making changes to the methodology for calculating inputs to the 2020 Mechanism or for calculating the PPI or PRI without first bringing the changes to the attention of the other parties to the 2020 Mechanism for review and to the Commission for approval. Witness Williamson concluded that the Company should collaborate with the Public Staff to codify this language in the cost recovery mechanism expeditiously. (*Id.* at 19.)

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 approves the inclusion of the RMAF adjustment as proposed by the Company to be included in the true-up of Vintage 2022 in the Company's Rider 15 filing. The Commission further directs the Company that, in calculating the RMAF adjustment, the then currently approved PAF should be removed from the recognized IRP reserve margin, as DEC has proposed in this proceeding. In addition, the Commission directs the Company to collaborate with the Public Staff to codify the language into the Mechanism as soon as practicable.

Public Staff Review of Company Rider 13 Calculations

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 and did not recommend any adjustments 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 2013 Sub 1032 Stipulation, the Sub 1130 Order, the Mechanism, and the 2020 Sub 1032 Order, and whether they otherwise adhered to sound ratemaking concepts and principles. Witness Maness testified that he believes that the Company has calculated the Rider 13 billing factors consistently with N.C.G.S. § 62-133.9, Commission

Rule R8-69, the 2013 Sub 1032 Stipulation, the Sub 1130 Order, the 2013 Mechanism and the 2020 Mechanism, and other relevant Commission orders. (Maness Direct at 15.)

Witness Maness testified that as part of the Public Staff's 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, 2020. 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. 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.

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

- Review of Vintage year 2020 Program Costs – The Public Staff's review of the selected sample items from the 2020 DSM/EE program costs resulted in one matter of concern, the Find it Duke referral channel.

- 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. (Maness Direct at 16.)

Witness Maness concluded that, although the Public Staff was concerned about the accounting for Find it Duke, the Public Staff found no errors or other issues necessitating an adjustment to the Rider 13 billing factors, subject to completion of the program cost sample review. On June 28, 2021, the Public Staff filed a letter indicating that it had completed the program cost sample review and found no errors or other issues necessitating an adjustment to the Rider 13 billing factors.

Conclusions on Calculations of Rider 13

Based on the foregoing, the Commission finds and concludes that with the exception of the prospective billing factor for residential customers, the components of Rider 13 are consistent with the Commission's findings and conclusions herein, as well as the Commission's findings and conclusions as set forth in the 2013 Sub 1032 Stipulation and the Mechanism approved in the 2013 Sub 1032 Order, as revised by the Sub 1130 Order and the 2020 Sub 1032 Order (approving the use of the 2020 Mechanism). With the exception of the prospective residential billing factor, which must be updated to reflect the Commission's Finding of Fact No. 8, the Commission approves the Company's calculation of the DSM/EE rates for Vintage 2022 as reflected in the direct and rebuttal testimony and exhibits of DEC witness Listebarger.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 31-32

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

Company witness Evans described the Collaborative's activities. He stated that the Collaborative met for formal meetings in January, March, May, July, September, and November in 2020. Between the meetings, interested stakeholders joined conference calls in February, April, May, August, October, and December to discuss certain agenda items or priorities, such as new program development ideas and pandemic-related issues, which could not be fully explored in formal meetings. Witness Evans stated that such meetings and calls would continue similarly through 2021 as well. (Evans Direct at 26-27.)

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 24.) For Vintage 2020, 5,154 eligible customer accounts opted out of participating in DEC's non-residential portfolio of EE programs, and 5,654 eligible customer accounts opted out of participating in the Company's non-residential DSM programs. (*Id*.) During 2020, however, 30 opt-out eligible customers opted into the EE portion of the Rider, and 11 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 24.)

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 24-25.) 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 25.)

Witness Evans also testified that, based on Collaborative-related requests, the Company would like to embark on studies related to Non-Energy Benefits (NEBs) with respect to its DSM/EE programs and the participation of low and moderate income (LMI) customers in its DSM/EE programs. The Company is beginning discussions with an external consultant for preliminary modeling to prioritize those NEBs that are most relevant to the Company's portfolio. Witness Evans projected that the initial cost of this modeling is $40,000. He also noted that EM&V will explore the feasibility of asking NEB-related questions through an on-going EM&V process evaluation with participants. For the LMI proposal, the Company and the Collaborative solicited proposals from three existing EM&V evaluators to conduct a saturation study assessing participation rates among low- and moderate- income households, as well as other metrics. The Collaborative identified a proposal that most closely matched the needs of the various Collaborative stakeholders. The key components of that proposal will:

- Characterize LMI customer participation in Duke Energy's EE programs;
- Compare LMI customer participation to that of non-LMI customers;
- Measure energy and bill impacts achieved through LMI customers participating in Duke Energy's programs;
- Identify drivers and barriers to LMI customer participation; and
- Identify strategies to cost-effectively increase LMI customer participation through programmatic enhancements.

Witness Evans projected the final cost of the LMI proposal to be $293,300. Because of this cost, DEC will present the proposal to the Commission for approval prior to commencing any work on it. (Evans Direct at 32.)

NC Justice Center, *et al.*, witness Bradley-Wright testified that DEC had reported a marked decline in energy savings in 2020, resulting from social distancing restrictions from the COVID-19 pandemic. He reported that in 2020 DEC delivered 612.2 gigawatt-hours (GWh) of efficiency savings at the meter, equal to 0.76% of the previous year's retail sales, reflecting a nearly 25% decline in incremental savings from 2019. (Bradley-Wright Direct at 3.) Despite DEC's lower performance in 2020, witness Bradley-Wright commended DEC for its proactive approach in the face of unprecedented challenges. The COVID-19 pandemic notwithstanding, however, witness Bradley-Wright was disappointed that in 2020 DEC did not meet the 1% savings mark that it had agreed to work toward. (*Id.* at 5.)

Witness Bradley-Wright also testified that DEC's low-income EE programs were negatively impacted by the COVID-19 pandemic. In 2020, energy saved in the DEC Low-Income Energy Efficiency and Weatherization Assistance program decreased by 75%, making it one of the hardest-hit programs. Additionally, the Multifamily EE program, which overlaps the low-income customer segment, was similarly impacted with an 81% savings reduction in 2020. (*Id.* at 10.)

Witness Bradley-Wright reported that DEC projects that it will achieve approximately 766.7 GWh of energy savings at the meter in 2022. This reflects a slight decline in DEC's previous savings performance and would be an estimated 0.96% of prior-year retail sales. (*Id.* at 11.) He stated that understanding and preventing savings declines is one of the most frequently raised issues for the Collaborative. He also noted that the 1% annual savings target was a key feature of the 2020 Sub 1032 Order, which allows for additional incentives related to the Company's ability to reach the 1% savings target. Witness Bradley-Wright also listed the EE/DSM program applications filed in 2020 with the Commission: (i) new measures to its Neighborhood Energy Saver and Residential Home Assessment; (ii) modification of Residential Power Manager Load Control Service to add winter-focused load control option; (iii) modifications to Small Business Energy Saver to expand customer eligibility criteria and implement a new program delivery channel; (iv) Residential New Construction program, which remains pending approval; and additional discounted measures in the Multifamily EE program, which the Commission subsequently approved. (*Id.* at 18-19.)

Witness Bradley-Wright also specifically addressed achieving greater efficiency savings for low-income customers. He noted that DEC forecasts its Low-Income Energy Efficiency and Weatherization Assistance program to account for approximately 2% of total residential energy saved in 2022. If achieved, this would be an 11% increase in total energy savings for DEC's low-income programs. Witness Bradley-Wright was aware that DEC had committed to work with the Collaborative to develop and to seek approval for new Low-Income EE programs. Witness Bradley-Wright also testified that the 2020 Sub 1032 Order included a provision for a study that will seek to estimate the LMI market penetration of DEC's non-income qualified programs to be used by DEC to recommend program enhancements designed to cost-effectively increase market penetration in the targeted populations and neighborhoods. Witness Bradley-Wright urged the Commission to approve the description of the study's scope of work and budget, as presented by DEC. Witness Bradley-Wright also recommended that the Company increase its low-income EE program budget and work with the Collaborative on setting a new budget and savings target for income-qualified programs to be filed with the next DSM/EE rider. (Bradley-Wright Direct at 22-28.)

Witness Bradley-Wright also made the following recommendations to the Commission:

- Direct DEC to develop and submit to the Commission a supplemental filing indicating how the Company would achieve 30.4 GWh saving to close the gap between its projected 0.96% annual savings in 2022 up to the 1% savings target.

- Direct DEC to work in good faith with members of the Collaborative to produce a plan on how best to exceed 1% annual savings in each of the next six years, to be periodically updated and presented to the Commission.

- Direct DEC to quantify and analyze the carbon savings associated with DEC's DSM/EE portfolio to help inform the work of the Collaborative and to enable the Commission and other interested parties to track the impact of DSM/EE resources toward achieving North Carolina's and Duke Energy's respective carbon reduction goals.

- Authorize DEC to proceed with its proposed study to evaluate market penetration of its non-income qualified programs with low- and moderate-income customers.

- Direct DEC to resume including a table comparing the past performance of its DSM/EE portfolio's costs and savings and to add forecasted versus actually achieved kWh savings in that table.

(Bradley-Wright Direct at 4.)

With respect to the Collaborative, witness Bradley-Wright described the progress of the Collaborative over the past year. He focused on the work to expand EE savings to low-income customers, and 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.

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 decarbonization, integrated resource planning, and DEC's COVID-19 response.

Public Staff witness Williamson also testified about additional studies discussed by witness Evans: the NEBs study and the study on the participation levels of LMI customers in Company's DSM/EE portfolio. The NEBs and LMI studies are both the result of work done by the DSM/EE Collaborative. Witness Williamson indicated that the NEBs Study was in an early phase, and the scope of the study is currently being developed. Witness Williamson also reported that, although the consultant to perform the study has not been selected, initial conversations indicate an approximate cost of $40,000. With respect to the LMI study, the Company will include activities such a participation analysis in LMI and non-LMI programs, consumption analyses, customer surveys to assess drivers and/or barriers to participation, arrearage, and service disconnection analysis. Witness Williamson stated that the consultant for this study had been selected, with the costs totaling an approximate $293,300. Witness Williamson explained that the Public Staff did not object to DEC conducting these studies; however, he cautioned that this should not be construed as the Public Staff's consent to the inclusion of NEBs as inputs to cost-effectiveness. (Williamson Direct at 14-16.)

In his rebuttal testimony, DEC witness Evans opposed witness Bradley-Wright's recommendations. He disputed that the Commission should direct the Company to submit a supplemental filing in this docket to increase its projected savings. In support, he noted that the projected savings and the associated cost recovery requested reflect currently expected market conditions and projected participation, which is not intended to be a ceiling on the amount of savings that may be achieved. Witness Evans further testified that it was not necessary for the Commission to order the Company to work in good faith to produce a plan to exceed 1% annual savings in the next six years as the Company's recovery mechanism already has a significant incentive to achieve the 1% level of savings. Witness Evans clarified, however, that the 1% annual savings is an aspirational goal and that the Company continues to strive for a robust DSM/EE portfolio.

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 2022 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) The Company shall proceed with the proposed NEBs and LMI studies.

IT IS, THEREFORE, ORDERED as follows:

1. That DEC shall work with the Public Staff to calculate the billing factors impacted by the removal of the FID revenues and costs excluded by this Order, and shall prepare a proposed Notice to Customers to be approved by the Commission explaining the rate changes approved herein. Within 30 days from the date of this Order, the Company shall file for Commission approval of said revised billing factors and the proposed Notice to Customers, along with DEC's proposed time for sending the customer notice;

2. That DEC shall include the information requested by the Commission about recruitment of and participation in FID by historically disadvantaged businesses in DEC's testimony in its 2022 DSM/EE rider proceeding;

3. That DEC shall work with the Public Staff to codify the RMAF methodology into the Mechanism, as revised by the 2020 Sub 1032 Order;

4. That DEC and the Collaborative participants shall give particular attention to the two directives stated by the Commission in this Order, and DEC shall include in its 2022 DSM/EE rider application a report on the progress made in satisfying the directives; and

5. That the Company shall proceed with the NEBs and LMI studies.

ISSUED BY ORDER OF THE COMMISSION.

This the 10th day of September, 2021.

NORTH CAROLINA UTILITIES COMMISSION

Lindsey A. Worley, Acting Deputy Clerk

Commissioner Jeffrey A. Hughes dissents.