

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. E-7, SUB 1155

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	
Application by Duke Energy)	PUBLIC STAFF COMMENTS ON
Carolinas, LLC, for Approval of)	APPLICATION FOR PROGRAM
Proposed Residential New)	APPROVAL
Construction Program)	

NOW COMES THE PUBLIC STAFF - North Carolina Utilities Commission (Public Staff), by and through its Executive Director, Christopher J. Ayers, pursuant to Commission Rule R8-68(d)(2), and responds to the application (Application) filed September 21, 2017, by Duke Energy Carolinas, LLC (DEC or the Company), for approval of its Residential New Construction Program (RNC or Program).

1. On September 21, 2017, DEC filed its proposed Program and requested that the Commission (1) approve the Program as an energy efficiency (EE) program under G.S. 62-133.9 and Commission Rule R8-68; (2) find that the Program meets the requirements of a "new" EE program consistent with Commission Rule R8-69; (3) find that the costs of the Program are eligible for recovery through DEC's annual Rule R8-69(b) rider; and (4) approve the Program for recovery of utility incentives associated with the Program.¹

2. The Public Staff's investigation included a review of the Petition with respect to: (a) G.S. 62-133.9; (b) Commission Rule R8-68; (c) the DSM/EE cost

¹ In response to a Public Staff data request, DEC clarified that it was also seeking approval of net lost revenues pursuant to its DSM/EE cost recovery mechanism.

and incentive recovery mechanism (Mechanism)² approved in the Commission's *Order Approving DSM/EE Programs and Stipulation of Settlement*, issued October 29, 2013, in Docket No. E-7, Sub 1032 (the Sub 1032 Order). The Public Staff's investigation also involved submission of data requests to DEC regarding the Program, and review of the responses. Based on its investigation, the Public Staff has the following comments.

Program Description

3. Under the Program, DEC will target residential builders in order to encourage the use of EE building practices and appliances/equipment for new home construction. The Program is identical to the Duke Energy Progress, LLC (DEP) program, also known as the Residential New Construction program in Docket No. E-2, Sub 1021.³

4. For this Program, the Company provided examples of measures that would be implemented into the eligible New Construction homes. These measures include:

<u>Whole-House Measures</u>	<u>Incentive</u>
HERO ⁴	up to \$750
HERO-Plus	Up to \$0.90/kWh Saved
<u>Equipment-Only Measures</u>	<u>Incentive</u>
Central AC ≥ 15 SEER	Up to \$300
Air Source Heat Pump ≥ 15 SEER	Up to \$300

² The Commission approved modifications to the Mechanism in the Order issued on September 18, 2017, in Docket No. E-2 Sub 1032. The revised mechanism is effective January 1, 2018.

³ DEP's program was originally approved by the Commission on October 24, 2012.

⁴ The Energy Conservation Code High Energy Residential Option (HERO) is an optional part of the 2012 North Carolina Conservation Code. The energy efficiency measures designated by HERO exceed the state minimum standards by at least 15%.

Costs and Benefits

5. Attachment B to the Application provides the estimated costs and benefits⁵ over the life of the program.

6. According to Attachment B, DEC projects the total net present value of benefits over the life of the Program to be \$56,084,839. The Public Staff notes that approximately 57% of the avoided cost benefits are derived from energy savings, 24% from capacity savings, and 19% from transmission and distribution (T&D) savings.

Net Lost Revenues and Portfolio Performance Incentive

7. Paragraphs 51 through 59 of the Mechanism set out the conditions under which DEC may recover net lost revenues resulting from the Program. As illustrated on Attachment B, DEC projects net lost revenues of \$34,470,876 (net of fuel) over the life of the Program.

8. Pursuant to paragraph 54 of the Mechanism, DEC may recover up to 36 months of estimated net lost revenues, provided DEC demonstrates that the Program is ultimately found to be cost-effective. The net lost revenue recovery is subject to true-up based on subsequent EM&V.

9. Paragraphs 60 through 76 of the Mechanism set out the conditions under which DEC may earn a portfolio performance incentive (PPI) related to a Program.

10. DEC stated in its Application that it seeks approval to include the recovery of program costs and utility incentives for the Program in its annual

⁵ Costs and benefits in Attachment B are given on a net present value basis.

DSM/EE rider. The Public Staff has reviewed DEC's estimates of program costs, net lost revenues, and utility incentives and they appear to conform to the requirements of the Mechanism. The Public Staff will review these items in the annual DSM/EE cost recovery rider proceedings.

Cost Effectiveness

11. G.S. 62-133.9(c) and Commission Rule R8-68 require DEC to provide information regarding the estimated cost-effectiveness of the Program. In particular, Rule R8-68(c)(2)(iv) provides that an electric public utility filing for approval of a DSM or EE measure must provide economic justification for each proposed measure or program, including the results of at least four cost-effectiveness tests: the Total Resource Cost (TRC) test, the Utility Cost (UC) test, the Ratepayer Impact Measure (RIM) test, and the Participant test.

12. Attachments A through F to the Application provide the projected participation, cost-effectiveness, and program costs associated with the first few years of the Program.

13. In response to a data request, DEC provided the Public Staff with supporting calculations and inputs associated with the modeling used to determine the program impacts and cost-effectiveness results over the life of the Program, as described in the attachments.

14. According to the Application and data responses, it appears that the overall Program is cost-effective under the TRC, UC, and Participant tests, and not cost effective under the RIM test.⁶

⁶ Revisions to the Mechanism effective January 1, 2018, change the avoided energy and capacity

Measurement and Verification

15. DEC proposes to use an independent third-party consultant to implement its EM&V plan. Currently, DEC has not hired a third-party consultant to perform the EM&V work for this Program, but that they are intending to hire Navigant Consulting, Inc. (Navigant). Navigant is also the EM&V consultant that DEP utilizes for their own Residential New Construction program.

16. In response to a Public Staff data request, DEC stated that a schedule of the EM&V activities and mileposts associated with the Program have not been determined at this time and that the schedule will not be developed until after the Program is approved.

17. In response to a Public Staff data request, DEC proposes to conduct a formal EM&V review of the Program every two to three years to update the impacts of the Program. On the first cycle of EM&V, DEC will conduct a separate EM&V review for this program, instead of having a combined effort with DEP's identical program. The response of a DEC data response determined that the reasoning behind this is to ensure that program impacts are determined without the influence of a similar, already established program. After the first cycle of EM&V is complete, then the Company will consider conducting the EM&V reviews on a combined effort.

18. The Public Staff continues to work with the Company in developing EM&V plans and schedules for each DSM and EE program in the Company's

rates that will be used to determine cost effectiveness. The Public Staff looked at the results of the cost effectiveness tests using both the avoided energy and capacity rates that are currently effective, and an estimate of what rates that the Public Staff anticipate will be effective January 1, 2018.

portfolio. While these efforts do not substitute for the requirements of Commission Rule R 8-68(c)(3)(ii), the Public Staff believes that the Application provides a reasonable summary of the EM&V work the Company proposes to undertake. The selection of the specific vendor and the EM&V schedule are not expected to be materially different from the vendor plans, analytical methods, and work schedule identified in the Application or data responses.

Other Considerations

19. The Public Staff has not discovered any information suggesting that the Program would affect a customer's decision to install natural gas or electric service.

20. In its 2017 IRP filed on September 1, 2017, in Docket No. E-100, Sub 147, DEC did not list any new DSM and EE programs it was considering. However, DEC stated in its Application that it may include the projected demand and energy savings from the Program in future IRPs.

Conclusions and Recommendations

21. The Public Staff believes that the filing contains the information required by Commission Rule R8-68(c) and is consistent with G.S. 62-133.9, R8-68(c), and the Stipulation and Mechanism. The Public Staff concludes that the Program has the potential to encourage EE, appears to be cost effective, is consistent with DEC's IRP, is in the public interest, and should be approved on a Program basis as a "new" EE program pursuant to Commission Rule R8-68.

22. Based on its review, the Public Staff believes that the Program is eligible for consideration of recovery of program costs, net lost revenues, and a PPI, subject to the terms of the Mechanism.

23. The Public Staff further recommends that the Commission determine the appropriate recovery of program costs, net lost revenues, and PPI associated with the Program in annual DSM/EE rider proceedings consistent with G.S. 62-133.9, Commission Rule R8-69, and the Mechanism.

Respectfully submitted this the 23rd day of October, 2017.

PUBLIC STAFF
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Executive Director

David T. Drooz
Chief Counsel

Electronically submitted
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CERTIFICATE OF SERVICE

I certify that a copy of this Response to Petition for Approval of Program has been served on all parties of record or their attorneys, or both, in accordance with Commission Rule R1-39, by United States Mail, first class or better; by hand delivery; or by means of facsimile or electronic delivery upon agreement of the receiving party.

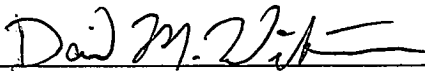
This the 23rd day October, 2017.

Electronically submitted
/s/ Heather D. Fennell
Staff Attorney

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VERIFICATION

I, David M. Williamson, being duly sworn, depose and say: I have read the foregoing Response of the Public Staff to Petition for Program Approval and the facts stated therein are true of my personal knowledge, except as to any matters and things therein stated upon information and belief. As to those, I believe them to be true. I am authorized to sign this verification on behalf of the Public Staff-North Carolina Utilities Commission.

This the 23rd day of October, 2017.



David M. Williamson

Sworn to and subscribed before me

This the 23 day of October 2017.



Notary Public

My Commission Expires: 3/18/2021

