

STATE OF NORTH CAROLINA  
UTILITIES COMMISSION  
RALEIGH

DOCKET NO. E-7, SUB 831

FILED

MAR 23 2012

Clerk's Office  
N.C. Utilities Commission

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of

Application of Duke Energy Carolinas, LLC for )  
Approval of Save-a-Watt Approach, Energy )  
Efficiency Rider and Portfolio of Energy Efficiency )  
Programs )

RESPONSE OF THE PUBLIC  
STAFF TO PETITION FOR  
APPROVAL OF PROGRAM

NOW COMES THE PUBLIC STAFF - North Carolina Utilities Commission (Public Staff), by and through its Executive Director, Robert P. Gruber, pursuant to Commission Rule R8-68(d)(1), and responds to the petition filed February 22, 2012, by Duke Energy Carolinas, LLC (Duke), for approval of its Residential Smart Saver Tune and Seal Program (Program):

1. Duke submitted the Program for Commission approval as an energy efficiency (EE) program under G.S. 62-133.9 and Commission Rule R8-68. The terms of the Program are set out in Duke's proposed Residential Smart Saver Tune and Seal Program tariff (Leaf 159), attached as Attachment G to the petition. With its petition, Duke requests the Commission to: (a) approve the Program pursuant to Commission Rule R8-68; (b) find that the Program meets the requirements of a "new" EE program consistent with R8-69; (c) find that all costs it incurs associated with the Program will be eligible for cost recovery through the DSM/EE rider approved in accordance with the modified save-a-watt mechanism (Mechanism), as approved by the Commission's *Order Approving Agreement and Joint Stipulation of Settlement Subject to Certain Commission-Required Modifications and Decisions on Contested Issues*, issued February 9, 2010, in this docket (February 9, 2010 Order); and (d) find that the Program is eligible for the recovery of net lost revenues.

2. The Public Staff has reviewed the application with respect to: (a) G.S. 62-133.9; (b) Commission Rule R8-68; (c) the Agreement and Joint Stipulation of Settlement, made by and between Duke, the Public Staff, the Southern Alliance for Clean Energy (SACE), the Environmental Defense Fund, the Natural Resources Defense Council, and the Southern Environmental Law Center, filed June 12, 2009, in this docket (Stipulation); (d) the February 9, 2010, Order; (e) the Commission's *Order Resolving Certain Issues, Requesting Information on Unsettled Matters, and Allowing Proposed Rider to Become Effective Subject to Refund*, issued February 26, 2009, in this docket (February 26, 2009, Order); and (f) the Flexibility Guidelines filed February 6, 2012, in this docket by the Public Staff, Duke, and SACE (Flexibility Guidelines). The Public Staff's investigation also involved meeting with representatives of Duke, serving

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data requests on Duke, and reviewing the responses. The Public Staff's comments and recommendations resulting from its investigation are set forth below.

### **Program Description**

3. The Program is designed to provide maintenance options for residential heating, ventilation, and air conditioning (HVAC) systems, as well as attic and duct sealing, and insulation. The measures offered are designed to provide prescriptive incentives or rebates to customers who own and occupy residential dwellings that meet certain measure criteria as provided in the proposed tariff.

4. The Program, if approved, will become part of Duke's Residential Smart Saver program approved by the February 26, 2009, Order. Data filed by Duke to support the Program only involves the measures proposed for approval, and not the entire Residential Smart Saver Program with the proposed measures incorporated.

### **Program Modifications**

5. Under the proposed tariff, Duke would be allowed flexibility to set the participant incentive up to a maximum per measure, as well as to modify the incentive distribution channels. In response to a data request, Duke indicated that it would initially offer participant incentives less than the maximum participant incentives allowed in the tariff. The initial participant incentives to be offered and maximum incentive allowed per measure are as follows:

	<u>Initial Incentive</u>	<u>Maximum Incentive</u>
a. Attic Insulation and Sealing	\$250	\$400
b. Duct Sealing	\$100	\$200
c. Duct Insulation	\$ 75	\$350
d. Central AC Tune Up	\$ 50	\$ 60
e. Heat Pump Tune Up	\$ 50	\$125

6. Under the February 26, 2009, Order, any change in the amount of participant incentive for a measure requires Commission approval. Under the proposed Flexibility Guidelines, changes in the participant incentive that are consistent with the tariff and do not result in the erosion of the Total Resource Cost (TRC) test ratio to less than 1.05 would not require Commission pre-approval. Of those changes not requiring pre-approval, advance notice of at least 45 days would be required for those that result in (a) the forward-looking present value of program costs increasing by more than 20%, (b) the forward-looking program-level TRC test ratio decreasing by more than 20%, (c) the projected forward-looking net present value avoided cost savings increasing by more than 20%, or (d) the forward-looking program-level TRC increasing by more than 20%. Any other changes in participant incentives would only be required to be reported after the fact in a quarterly report. However, all changes are ultimately at the discretion of the Commission to approve or disapprove.

7. In regard to the flexibility to modify the incentive distribution channels, both the February 26, 2009, Order and the Flexibility Guidelines require Commission approval if the change is inconsistent with the tariff language. Depending on the specific change in incentive distribution channels and the impact of the change, the February 26, 2009, Order may require Commission approval. Under the proposed Flexibility Guidelines, the impact of the change on the TRC ratio, program costs, and avoided cost savings would determine whether Commission approval, advance notice, or no notice would be required.

### **Costs and Benefits**

8. Attachments B and B2 provide the costs and benefits over the life of the Program using the proposed initial and maximum participant incentives, respectively.

9. Duke projects total Program utility costs of \$33,076,401, assuming payment of the proposed initial participant incentives, and \$38,009,241, assuming payment of the maximum proposed participant incentives. The remaining costs, which are the same for both the initial and maximum participant incentives, are primarily associated with developing and administering the Program, as well as measuring and verifying its energy and capacity savings. These costs also include \$1,013,511 in communications costs associated with a variety of communication channels used to promote the Program.

10. Pursuant to the Mechanism, Duke intends to recover these program costs through its DSM/EE rider as the costs are incurred. The DSM/EE rider is designed to compensate the Company for its program costs by allowing recovery of a percentage of the avoided cost revenue requirement associated with the Program based on measured and verified net demand and energy savings.

11. Duke projects total benefits over the life of the Program to be \$74,434,072. The Public Staff notes that approximately 63% of the avoided cost benefits is derived from energy savings, 20% from capacity savings, and 17% from transmission and distribution (T&D) savings.<sup>1</sup>

### **Net Lost Revenues**

12. Section G of the Mechanism sets out the parameters under which Duke may recover net lost revenues resulting from the Program. As illustrated on Attachments B and B2, Duke projects net lost revenues of \$65,194,375 over the life of the Program.

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<sup>1</sup> The avoided cost benefits are calculated using the avoided capacity, energy, and T&D rates approved for use in measuring the cost-effectiveness of programs in Docket No. E-7, Sub 831.

13. Pursuant to the Mechanism, Duke may recover up to 36 months of net lost revenues for actual energy savings that have been measured and verified through third-party evaluation, measurement, and verification (EM&V).

14. In response to a Public Staff data request, Duke calculated net lost revenues in accordance with the Mechanism on both a measure-specific and total basis. These calculations are attached as Appendix A.

### **Cost Effectiveness**

15. G.S. 62-133.9(c) and Commission Rule R8-68 require Duke to provide information regarding the 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 TRC test, the Participant test, the Utility Cost test (UCT), and the Ratepayer Impact Measure (RIM) test.

16. In support of its petition, Duke submitted Attachments A through F, which list data associated with the initial participant incentives proposed to be offered for each measure, and Attachments A2 through F2, which list data associated with the maximum participant incentives that may be offered for each measure. Attachment B and B2 also contain the calculations of the four cost-effectiveness tests.

17. In response to a data request, Duke 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. Modeling included the existing lighting and HVAC measures, as well as the proposed Program measures.

18. Based on the Public Staff's review, it appears that the Program should be cost effective under the TRC, Participant, and UCT tests with either the initial and maximum participant incentives. Furthermore, the Public Staff believes that the avoided costs and other inputs associated with these calculations are consistent with the requirements of the Mechanism.

### **Measurement and Verification**

19. Duke proposes to use an independent third-party consultant to implement its EM&V plan. The EM&V plan includes an assessment of program impacts using weather-adjusted billing data and customer survey data collected from participants of the Program. Additionally, Duke will also gather information necessary to calculate the influence of free ridership and spillover on net savings. This information will be used to determine the accuracy of the estimates of program impacts and participation and to verify the net savings from the Program measures.

20. Duke also provided a schedule of the EM&V activities and mileposts associated with the Program including the timeframes for sampling, surveying, analysis, and reporting.

21. The Public Staff believes the EM&V plan and schedule is reasonable. The Public Staff recommends that Duke, in its first EM&V report, perform sufficient analysis to confirm the appropriateness of the baseline measures initially used to calculate the estimated program impacts.

### **Other Considerations**

22. 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.

23. In its 2011 Integrated Resource Plan (IRP) filed on September 1, 2011, in Docket No. E-100, Sub 128, Duke listed the Program as one of the new DSM and EE programs it was considering. Duke has indicated to the Public Staff that projected demand and energy savings from the Program will be incorporated in future IRPs.

### **Future Cost Recovery**

24. In its petition, Duke asks the Commission to find that all costs it incurs associated with the Program will be eligible for recovery through its annual DSM/EE rider in accordance with the Mechanism, as well as net lost revenues.

### **Conclusions and Recommendations**

25. The Public Staff has reviewed the petition and believes that it contains the information required by Commission Rule R8-68(c) and is consistent with G.S. 62-133.9, R8-68(c), and the Mechanism. The Public Staff also believes that the Program has the potential to encourage energy efficiency, appears to be cost effective, is consistent with Duke's IRP, is in the public interest, and should be approved as a "new" EE program pursuant to Commission Rule R8-68.

26. Based on its review of the petition and data request responses, the Public Staff believes that the Program is eligible for consideration of recovery of the avoided cost percentage revenue requirement and net lost revenues related to the Program in accordance with the Mechanism.

27. The Public Staff further recommends that the Commission determine the appropriate recovery of the avoided cost percentage revenue requirement and net lost revenues associated with the Program in the annual DSM/EE rider proceeding consistent with G.S. 62-133.9, Commission Rule R8-69, and the Mechanism.


WHEREFORE, the Public Staff prays:

1. That this Response be treated as the Public Staff's notice of intervention under Commission Rule R1-6;
2. That the Commission approve the Program as a new EE program, as well as the tariff;
3. That the Commission find that all costs incurred by Duke associated with the Program will be eligible for consideration for cost recovery in accordance with Commission Rule R8-69;
4. That the Commission order Duke to file its proposed Residential Smart Saver Tune and Seal Program tariff (Leaf 159) effective within 10 days following the date of this Order;
5. That if the Commission seeks additional information or wishes to ask questions of Duke or the Public Staff regarding the Program, it issue an order requiring further information from Duke or convene a technical conference with the parties, as needed, prior to issuance of an order; and
6. For such other and further relief as the Commission may deem just and proper.

This the 23<sup>rd</sup> day March, 2012.

PUBLIC STAFF  
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CERTIFICATE OF SERVICE

I certify that a copy of this Response to Application 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 23<sup>rd</sup> day March, 2012.

  
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Lucy E. Edmondson

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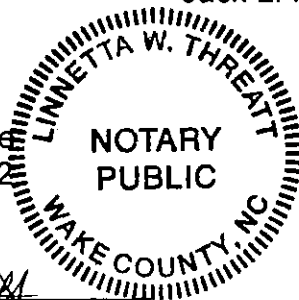
VERIFICATION

I, Jack L. Floyd, being duly sworn, depose and say: I have read the foregoing Response of the Public Staff to Application 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 23<sup>rd</sup> day of March, 2012.

Jack L. Floyd  
Jack L. Floyd

Sworn to and subscribed before me  
This the 23<sup>rd</sup> day of March 2012



Linnetta W. Threath  
Notary Public Linnetta W. Threath

My Commission Expires: 9-4-13



