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December 14, 2015

## VIA ELECTRONIC FILING

Ms. Gail L. Mount Chief Clerk North Carolina Utilities Commission Dobbs Building 430 North Salisbury Street Raleigh, NC 27606-5926

RE: Duke Energy Progress, LLC Proposed Modifications to Home Energy

Improvement Program Docket Nos. E-2, Sub 936

Dear Ms. Mount:

Enclosed for filing are the Reply Comments of Duke Energy Progress, LLC ("DEP") in response to the Public Staff's December 2, 2015 Comments on Application for Program Approval concerning DEP's October 2, 2015 request for approval of its Proposed Modifications to its Home Energy Improvement Program.

Respectfully submitted,

Brian L. Franklin

BLF/ds Enclosure

cc: All Parties of Record

# STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

### BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

DOCKET NO. E-2, SUB 936

In the Matter of	)	
	)	
Request by Duke Energy Progress, LLC	)	REPLY COMMENTS OF DUKE
for Approval of Modifications to	)	<b>ENERGY PROGRESS, LLC</b>
Residential Home Energy Improvement	)	
Program	)	

NOW COMES Duke Energy Progress, LLC ("DEP" or the "Company"), and hereby submits these Reply Comments regarding the Public Staff - North Carolina Utilities Commission's (the "Public Staff") December 2, 2015 Comments on Application for Program Renewal concerning DEP's request that this Commission approve its Proposed Modifications to its Home Energy Improvement Program ("HEIP" or the "Program"), filed with this Commission on October 2, 2015.

#### INTRODUCTION

The Public Staff's Comments raise concerns regarding approving the continuation of the modified HEIP into 2019 given that the Program is not projected have a Total Resource Cost test ("TRC") result greater than 1.0. While DEP understands the Public Staff's concerns, the Company believes these concerns are driven in large part by the conservative approach utilized by the Company in modeling the Program, and over the longer term, this critical Program should return to being cost-effective. Additionally, DEP is concerned that the Public Staff's

recommendation to operate the modified Program for such a brief period of time would, if followed, render useless any efforts by the Company to feasibly and realistically assess the Program's viability and impact on the market.

## **REPLY COMMENTS**

1. Despite the Company's aggressive attempts to modify the Program design and reduce Program costs, as the Public Staff notes, participant costs namely, the out-of-pocket costs for higher efficiency HVAC equipment – are an obstacle to HEIP's ability to achieve a TRC result greater than 1.0. Although the Program has struggled to maintain cost-effectiveness for a number of years, the baseline efficiency standards for HVAC equipment issued by the U.S. Department of Energy increased in January 2015, which exacerbated the problem and offset the reduction in Program costs. As is the case with the introduction of most new technologies, the incremental cost to move to higher efficiency equipment that exceeds the baseline is typically more expensive for participants. Moreover, the increase in baseline efficiency standards has led to a corresponding decrease in the projected incremental energy savings potential for HVAC replacement measures, which further hinders HEIP's cost-effectiveness. Again, although the Company's proposed modifications will lower Program costs and improve a Program participant's experience, the variable that is ultimately driving the TRC below 1.0 is outside of DEP's direct control. To put this unfortunate situation into perspective, because of the higher estimated out-of-pocket costs to exceed the baseline and the fact that the proposed modifications lower the Program cost per participant by \$101, or almost 25%, the out-of-pocket expense accounts for nearly 90% of costs captured

by the TRC. If one looks at the Utility Cost Test ("UCT") – which does not factor in the out-of-pocket costs of customers, but rather only accounts for the utility costs – the Program *passes* cost-effectiveness, and the proposed modifications deliver over a 90% improvement in the UCT.

2. As the Public Staff also acknowledges, DEP expects out-of-pocket costs to decrease, which will improve cost-effectiveness. As with many other technologies, there is a cost curve which applies to the introduction of new products. For example, looking at the cost curve associated with the incremental cost of higher efficiency lighting demonstrates how quickly costs can decrease when the market sees strong demand for the more efficient technology. Likewise, as more of the higher efficiency HVAC units are sold into the market, the costs should decrease. Indeed, DEP has observed that within two to three years following the last increase in the efficiency standards for HVAC systems, the incremental out-of-pocket costs to exceed HVAC standards decreased 25% to 30%. When the efficiency standard for HVAC equipment increased in January 2015, an 18-month sell-through period was established in recognition that there would still be inventory of lower efficiency HVAC equipment in the market to be sold. As manufacturers, distributors, and retailers see higher volumes of the more efficient equipment being sold, however, the price of the higher efficiency equipment should decrease. In fact, after surveying trade allies in its service territory in the fourth quarter of 2015, the incremental outof-pocket costs associated with exceeding the standard have already declined by almost 10% versus the values modeled and presented in the Company's October 2, 2015 application in this Docket.

- 3. The Public Staff notes that DEP took a conservative approach in modeling cost-effectiveness for the modified Program that did not take into account the expected decline in participant costs over the three-year period. While the Public Staff interprets DEP's conservative modeling approach to be demonstrative of the "tentative nature" of any projected decreases in participant costs, DEP disagrees with this characterization and believes that that the costs will assuredly come down, with the only uncertainties being how quickly they will come down and by how much. Despite the Company's confidence that out-of-pocket costs will decrease, in order to be transparent and to avoid making assumptions regarding the speed and magnitude of the decrease in costs, DEP decided to rely on the known out-of-pocket costs at the time it prepared the application and keep them constant for the entire period.
- 4. The Public Staff states that the proposed free referral service enhances overall cost-effectiveness of the Program (including TRC results), and supports approval of this channel. It also supports approval of the quality installation measure because this measure has a projected TRC score above 1.0. Nevertheless, the Public Staff recommends that the Commission deny DEP's request for approval of the modified program through March 31, 2019, because the projected TRC continues to be below 1.0, and recommends that the provision in the Commission's Order in Docket No. E-2, Sub 1070 ("Sub 1070 Order"), which subjects HEIP to cancellation on March 31, 2016, unless DEP can show how the Program can be made cost-effective in the long term, remain in effect.
- 5. The Company does not disagree with the Public Staff that a costbenefit review is required for program modifications as well as for approved

programs, and agrees that the Sub 1070 Order does impose a March 31, 2016 deadline for establishing that it is possible to modify the Program so that it is cost-effective in the long term. However, it is important to look at this requirement in context, and consider that the significant program alterations being proposed would have made the existing HEIP program cost-effective, had the standard not changed in January 2015. Given the significant reduction in program costs that will be possible with the new program design and the fact that there is strong evidence to believe that the out-of-pocket costs, the one variable that the Company cannot directly control, will be declining, the Company believes that it is appropriate to move forward with the modifications and allow the Program to help customers save energy while the out-of-pocket costs continue to decline.

6. DEP believes that it is very important to maintain an energy efficiency portfolio that includes a residential program featuring HVAC-related measures. HVAC-related usage accounts for 30-40% of the average residential customer's usage, making it the single largest component of residential customer use. Termination of the key program which addresses the largest component of residential customer use would deprive DEP customers of a substantial opportunity to realize energy savings. As evidenced by the supportive comments and letters filed by Southern Alliance for Clean Energy, Natural Resources Defense Council, North Carolina Sustainable Energy Association, and the North Carolina Building Performance Association, it is critical to have a program that promotes HVAC efficiency. HVAC efficiency also provides the greatest opportunity to reduce usage

at peak, as the energy savings resulting from more efficient equipment generally come at peak times.

- 7. As mentioned previously, while there is strong evidence to believe that over time the incremental out-of-pocket costs will decline, what is less certain is the rate at which the decline occurs. The Company believes that eliminating HEIP actually will slow down the decline in the incremental costs associated with exceeding the standard because fewer customers will make the election to invest to exceed the standard. It is counterintuitive to allow changes in the efficiency standard, which cause a short-term increase in the incremental out-of-pocket costs for more efficient equipment, to eliminate a program that will help accelerate the market transformation necessary to lower the costs of the efficient equipment. For this reason, DEP believes that regardless of whether participant costs drop to the point where the Program passes the TRC, the Company's customers will be better off because the incremental out-of-pocket costs will have fallen more than they would have absent HEIP.
- 8. Given the unlikelihood that the anticipated decrease in out-of-pocket costs will be realized by the March 31, 2016 deadline in the Sub 1070 Order, the Public Staff's recommendation that the referral channel be approved subject to cancellation on this date is impractical. The redesign and magnitude of the change to HEIP to implement the referral channel is significant and requires a different relationship with the Company's trade allies moving forward. It would not be fair or reasonable to ask them to endure such a significant change, knowing that the program likely will be terminated in such a short period of time (i.e., three months, assuming a

January 1, 2016 implementation). Moreover, if the Program is canceled shortly after lining up trade allies for the referral network, but the incremental out-of-pocket costs decrease over time, as expected, to a point that the Program would pass the TRC and be reestablished, DEP would be hard pressed to convince the trade allies to participate with the Company again.

- 9. In Paragraph 35 of its Comments, the Public Staff makes a number of recommendations if the Commission approves the HEIP modifications as proposed by the Company in its October 2, 2015 filing (i.e., all of the modifications and for a term through March 31, 2019). DEP agrees with these recommendations to the extent they are feasible. First, DEP agrees that it is appropriate to utilize the Energy Efficiency Ratio of 16 as the baseline efficiency standard used in the determination of the energy savings associated with geothermal heat pumps. DEP also agrees to file with the Commission the finalized template for the Trade Ally agreement for the referrals, as well as the finalized initial checklist that it will use to qualify customer level for the quality installation measure. With respect to the Public Staff's recommendations regarding evaluation, measurement and verification ("EM&V") in Paragraph 35(d), DEP will commit to work with its independent third party evaluator to accommodate the recommendations to the extent it is practicable given the EM&V methodology utilized, and assuming that it is not cost prohibitive to do so.
- 10. In order to address the Public Staff's concerns with approving the modified HEIP program through March 31, 2019, when it is projected to have a TRC result below 1.0, the Company proposes that on a quarterly basis beginning in the second quarter Collaborative, DEP will report on the out-of-pocket incremental costs

in the market and whether it has observed the projected trend in reduction in out-ofpocket costs that will enable the Program to be cost-effective under the TRC in the
future. In order to better assess the long-term viability of the Program, DEP, the
Public Staff and the Commission can take into account the changes in the market and
then reevaluate the costs and benefits of continuing the program in March 2017. This
will allow adequate time for the projected decrease in prices for higher efficiency
HVAC equipment to bear out and for the referral channel to ramp up (which the
Public Staff acknowledges will improve cost-effectiveness), and mitigate any concern
that the Program modifications will be in place through March 31, 2019 without
further review of cost-effectiveness.

## **CONCLUSION**

For all the foregoing reasons, DEP respectfully reiterates its request that this Commission (1) approve the Residential Service - Home Energy Improvement Program HEIP-5 tariff (provided on Attachment G to the October 2, 2015 filing) at the Commission's earliest convenience; (2) approve the Residential Home Energy Improvement Program, as modified, to remain in effect through the evaluation period ending March 31, 2019, or until such time that the Commission orders otherwise; (3) find that the Residential Home Energy Improvement Program, with modifications, continues to meet the requirements of a "new" energy efficiency program consistent with Rule R8-69; (4) find that all costs incurred by DEP associated with the Residential Home Energy Improvement Program will be eligible for consideration for cost recovery through the annual DSM and energy efficiency rider in accordance with

Rule R8-69(b); and (5) approve the proposed utility incentives for inclusion in the annual DSM and energy efficiency rider in accordance with Rule R8-69.

Respectfully submitted this 14th day of December 2015.

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ATTORNEYS FOR DUKE ENERGY PROGRESS, LLC

# **CERTIFICATE OF SERVICE**

I certify that a copy of the Reply Comments of Duke Energy Progress, LLC in Docket No. E-2, Sub 936 has been served by electronic mail (e-mail), hand delivery or by depositing a copy in the United States Mail, first class postage prepaid, properly addressed to parties of record.

This, the 14th day of December 2015.

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