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December 16, 2015

**VIA ELECTRONIC FILING**

Ms. Gail Mount, Chief Clerk  
North Carolina Utilities Commission  
4325 Mail Service Center  
Raleigh, North Carolina 27699-4300

**RE: Modifications to Duke Energy Progress, LLC  
Residential – Home Energy Improvement Program  
Docket No. E-2, Sub 936**

Dear Ms. Mount:

Enclosed for filing with the North Carolina Utilities Commission (the "Commission") are Duke Energy Progress, LLC's ("DEP" or "Company") modifications to its Residential Home Energy Improvement Program ("Program" or "HEIP"). These modifications are being submitted in accordance with the demand side management/energy efficiency ("DSM/EE") flexibility guidelines, approved by the Commission, in its April 30, 2009 Order in Docket No. E-2, Sub 936. This EE program was filed and approved pursuant to Commission Rule R8-68 and the Commission's Orders dated February 29, 2008, and March 13, 2008, in Docket No. E-100, Sub 113, Rulemaking Proceeding to Implement Session Law 2007-397 (Senate Bill 3).

The Company is adding an Energy Efficient Variable Speed Pool Pump measure to the Program. Participating customers will receive a \$300 incentive for installing these devices. The application of these devices will reduce participants' pool-related energy usage, resulting in estimated savings of over \$300 per year. The Program measure will mirror the existing Variable Speed Pool Pump measure currently offered by Duke Energy Carolinas, LLC. This additional measure enhances the cost-effectiveness of the Program through its 3.01 Utility Cost Test and 1.93 Total Resource Cost test score. Cost-effectiveness results relating to the addition of the Energy Efficient Variable Speed Pool Pump Measure to HEIP are included herewith as Exhibit 1.

In its April 30, 2009 *Order Approving Program* in Docket No. E-2, Sub 936, the Commission provided that the provisions of the first full paragraph on page 13 of DEP's Amended Petition, which was filed on February 24, 2009 in Docket No. E-2, Sub 938, and approved by the Commission, relating to flexibility and Program modifications, shall be applicable to HEIP. These provisions provided that the Company would seek advance Commission approval for any Program changes involving (1) the termination or temporary suspension of the Program, (2) any change that increases an incentive to a

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level 30% or more above, or reduces it to a level 30% or more below, currently approved levels, and (3) any change that increases the estimated total cost of the Program to a level 20% or more above, or reduces it to a level 20% or more below, currently approved estimated total cost. Any other Program changes would be filed with the Commission on an informational basis one week in advance of implementing the change.

The Program changes associated with this filing (1) do not provide for the termination or temporary suspension of the HEIP Program, (2) do not increase Program incentives by 30% or more above, or reduce Program incentives by 30% or more below, currently approved levels, and (3) do not increase the estimated total costs of the HEIP Program by 20% or more above, or reduce Program costs by 20% or more below, currently approved estimated total costs. Data illustrating that the Energy Efficient Variable Speed Pool Pump measure meets the second and third criteria of an informational filing is provided herewith as Exhibit 2.

The addition of Energy Efficient Variable Speed Pool Pump measure was introduced at DEP's Fourth Quarter DSM/EE Collaborative meeting held on December 4, 2015.

As the Program modifications incorporated in this informational filing comply with the flexibility conditions provided for in the Commission's April 30, 2009 *Order Approving Program* issued in Docket No. E-2, Sub 936, DEP intends to implement these modifications on January 1, 2016. The revised HEIP tariff reflecting addition of the Energy Efficient Variable Speed Pool Pump measure and effective January 1, 2016 is provided herewith as Exhibit 3.

Thank you for your attention to this matter. If you have any questions, please let me know.

Respectfully Submitted,



Brian L. Franklin

Enclosure

cc: All Parties of Record

## Exhibit 1

## Cost Effectiveness Results of Variable Speed Pool Pump Measure

<b>Variable Speed Pool Pump</b>				
	<b>UCT</b>	<b>TRC</b>	<b>RIM</b>	<b>Participant</b>
Avoided T&D Electric	\$176,077	\$176,077	\$176,077	\$0
Cost-Based Avoided Elec Production	\$915,970	\$915,970	\$915,970	\$0
Cost-Based Avoided Elec Capacity	\$313,126	\$313,126	\$313,126	\$0
Participant Elec Bill Savings (gross)	\$0	\$0	\$0	\$1,785,809
Net Lost Revenue Net Fuel	\$0	\$0	\$1,020,126	\$0
M&V Costs	\$22,267	\$22,267	\$22,267	\$0
Implementation Costs	\$175,416	\$175,416	\$175,416	\$0
Incentives	\$250,988	\$0	\$250,988	\$250,988
Other Utility Costs	\$18,935	\$18,935	\$18,935	\$0
Participant Costs	\$0	\$512,016	\$0	\$602,371
Total Benefits	\$1,405,173	\$1,405,173	\$1,405,173	\$2,036,797
Total Costs	\$467,606	\$728,633	\$1,487,732	\$602,371
<b>Benefit/Cost Ratios</b>	<b>3.01</b>	<b>1.93</b>	<b>0.94</b>	<b>3.38</b>

Data represents present value of costs and benefits over the life of the program.

## HEIP Cost Effectiveness Impacts

Both UCT and TRC Cost Effectiveness Test results, from the Variable Speed Pool Pump measure, exceed those of the Home Energy Improvement Program (HEIP). As a result, the current HEIP UCT score estimate for 2016, 1.27, and TRC score estimate for 2016, 0.91, will both increase.

## VSPP Impacts on HEIP Costs and Incentives

	<u>HEIP 2016 (1)</u>	<u>VSPP</u>	<u>% Change</u>
Program Costs	1,403,686	52,520	3.74%
Incentives	1,759,435	60,854	3.46%
Total Costs	3,163,121	113,374	3.58%
	<u>VSPP Only PV 2016-2020 (2)</u>	<u>VSPP Only Annuitized Value (3)</u>	
Program Costs	216,618	52,520	
Incentives	250,988	60,854	

(1) Source: Docket E-2, Sub 1070, WP E-3

(2) Source: Exhibit 1

(3) Annuitized value using N=5 and I=6.78%



Duke Energy Progress, LLC  
(North Carolina Only)

RESIDENTIAL SERVICE – HOME ENERGY IMPROVEMENT  
PROGRAM HEIP-3D

PURPOSE

The purpose of this program is to offer customers a variety of energy conservation measures designed to increase energy efficiency in existing residential dwellings that can no longer be considered new construction. This Program will utilize a network of customer-selected contractors from a prequalified list provided by Company to install energy efficiency measures: (1) to encourage the installation of high efficiency central air conditioning (AC) and heat pump systems, (2) to encourage attic insulation and sealing, (3) to perform diagnostic maintenance on heat pumps or central AC units, (4) to encourage the installation of heat pump water heaters, (5) to encourage high efficiency room air conditioning, and (6) to encourage the installation of high efficiency variable speed pool pumps.

AVAILABILITY

The program is available to customers whose premise is at least one year old, is served under a residential service schedule by Company, and is applicable to all electric service of the same available type supplied to Customer's premises at one point of delivery through one kilowatt-hour meter under the provisions of this Program.

Incentives are only applicable to measures installed by a prequalified contractor approved by Company; however, high efficiency room air conditioners may be self-installed and do not require the use of a prequalified contractor.

INCENTIVE PAYMENTS

For installations on and after January 31, 2012, Customer shall receive the following incentives for qualifying equipment or other measures:

1. For air duct repair, 50% of the repair cost, not to exceed \$190 per unit per dwelling.
2. For increasing attic insulation to a minimum of R30 and attic air sealing, 37.5 cents per square foot, not to exceed \$500 per dwelling.
3. For the installation of high efficiency central AC, heat pumps, and geothermal heat pumps, \$300 per unit.
4. For HVAC audit, consisting of condenser coil cleaning plus correcting refrigerant charge and adjusting air flow using Company approved diagnostic tool, \$100. Customer shall be eligible for an HVAC audit incentive only once for the HVAC equipment life.
5. For the installation of heat pump water heater(s), \$350 per dwelling.
6. For high efficiency room air conditioner(s), \$25 per unit with a maximum of 4 units per customer account subject to an incentive.
7. For the installation of high efficiency variable speed pool pump(s) in owner-occupied single-family residences, \$300.

Incentive Payments for qualifying window replacements, HVAC tune-up level I and duct testing under Program HEIP-1 shall continue to be available for installations completed on or before March 31, 2012.<sup>1</sup>

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<sup>1</sup> The incentive payments applicable to installations completed on or before March 1, 2012, as stated in Program HEIP-1: (1) for energy efficient windows shall be \$30 per window, not to exceed \$450 per dwelling; (2) for HVAC tune-up level I, consisting of condenser coil cleaning, shall be \$45; and (3) for air duct testing shall be 50% of the cost of the test, not to exceed \$60 for first unit tested or \$90 for two or more units per dwelling.

### RESPONSIBILITY OF PARTIES

A dwelling is eligible to receive an incentive for each central air conditioner or heat pump, and heat pump water heater installed based on the efficiency level. The work performed for all measures must be completed by a Company prequalified contractor who has met the program training requirements and guidelines as set forth by the Program; however, high efficiency room air conditioners may be self-installed and do not require the use of a prequalified contractor.

### CONTRACT TERM

Customer shall submit the required incentive application form, including required documentation such as equipment cut sheets and the original contractor invoice as provided by the contractor based upon program requirements, within ninety (90) days of completion of the work. Incentive application forms received after that date will not be eligible to receive an incentive payment.

All energy conservation measures shall be subject to inspection by Company for the purposes of program evaluation, measurement, and verification.

### OTHER CONDITIONS

The following equipment specifications shall be met in order to be eligible to receive an incentive:

High Efficiency Heat Pump Replacements - the replacement unit(s) shall be a minimum SEER (Seasonal Energy Efficiency Ratio) of 15.

High Efficiency Central AC Replacements - the replacement unit(s) shall be a minimum SEER of 15.

Geothermal Heat Pumps - shall be a minimum EER (Energy Efficiency Ratio) of 19.

Attic Insulation - shall require air leak sealing, bring the insulation up to a minimum of R30 and existing insulation shall not be higher than R19.

Heat Pump Water Heaters - the replacement unit(s) shall have a minimum Energy Factor of 2.0.

High Efficiency Room Air Conditioning - the unit(s) shall be Energy Star qualified.

High Efficiency Variable Speed Pool Pumps - the unit(s) shall be Energy Star qualified.

### COMPANY RETENTION OF PROGRAM BENEFITS

Incentives and other considerations offered under the terms of this Program are understood to be an essential element in the recipient's decision to participate in the Program. Upon payment of these considerations, Company will be entitled to any and all environmental, energy efficiency, and demand reduction benefits and attributes, including all reporting and compliance rights, associated with participation in the Program.

### GENERAL

Service rendered under this Program is subject to the provisions of the Service Regulations of the Company on file with the state regulatory commission.

Supersedes Programs HEIP-3C  
Effective for service rendered on and after January 1, 2016  
NCUC Docket No. E-2, Sub 936

**CERTIFICATE OF SERVICE**

I certify that a copy of Duke Energy Progress, LLC's Modifications to Residential Home Energy Improvement Program 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 16th day of December 2015.



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