

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-2, SUB 1023
DOCKET NO. E-7, SUB 1026

In the Matter of:)
Application of Duke Energy Progress,)
LLC, for Adjustment of Rates and)
Charges Applicable to Electric Utility)
Service in North Carolina)
In the Matter of:)
Application of Duke Energy Carolinas,)
LLC, for Adjustment of Rates and)
Charges Applicable to Electric Utility)
Service in North Carolina)

**COMMENTS ON PROPOSED
AMENDMENTS TO PLANS FOR
DISTRIBUTION OF RATEPAYER
ASSISTANCE FUNDS**

The Southern Alliance for Clean Energy, North Carolina Housing Coalition, North Carolina Council of Churches, and North Carolina Interfaith Power and Light, (collectively, “Efficiency and Equity Groups”) hereby submit the following comments on Duke Energy Progress, LLC’s and Duke Energy Carolinas, LLC’s request for modification of their low-income ratepayer assistance programs.

INTRODUCTION

On February 27, 2014, the North Carolina Utilities Commission (“Commission”) issued an Order Approving Plan for Distribution of Ratepayer Assistance Funds in Docket No. E-2, Sub 1023 and Docket No. E-7, Sub 1026. The Orders approved plans for the distribution of funds for low-income customer assistance by Duke Energy Progress, LLC (“DEP”) and Duke Energy Carolinas, LLC (“DEC”) (collectively, “Duke Energy”). Duke Energy allocated \$20 million into the Helping Home Fund to pay for

weatherization, appliance replacements, and heating/cooling system replacements. To date, Duke Energy has distributed approximately half of the allotted \$20 million.

On July 27, 2016, Duke Energy filed a request with the Commission, indicating that it has received feedback from participating agencies about how to better serve low-income customers with its programs. In light of that feedback, Duke Energy requested several modifications to its low-income assistance programs. Efficiency and Equity Groups support the requested modifications, which will allow Duke Energy to better assist low-income customers with energy efficiency improvements that will lower their electric bills, reduce their energy burden and improve comfort and health in the home. On July 29, 2016, the Commission issued an order providing that persons having an interest in the changes in low-income assistance programs proposed by Duke Energy may file petitions to intervene in the above-referenced dockets on or before August 22, 2016. The Commission's July 29, 2016 order also provided that all parties may file comments regarding the requested changes on or before August 22, 2016.

The following comments discuss the requested modifications, describe the importance of low-income energy efficiency programs and provide recommendations designed to improve Duke Energy's current and future low-income assistance program offerings.

REQUESTED PROGRAM MODIFICATIONS

In response to feedback it received from participating Community Action agencies, Duke Energy requested the following modifications to its low-income assistance programs: (1) to increase the amount that can be spent per home on health and safety repairs; (2) to increase the amount that can be spent per home on appliance

replacements and allow the replacement of more than one appliance per home; (3) to expand the circumstances under which heating/cooling replacements can be offered; and (4) to allow Duke Energy to upgrade the facilities of shelters and other nonprofit agencies that serve low-income individuals.

Efficiency and Equity Groups support the requested modifications, which will enable additional investments in each household, providing more comprehensive energy efficiency benefits and taking into account the unique circumstances of each home. In addition, the modified programs will allow Duke Energy to expand its energy efficiency offerings to shelters and other nonprofit agencies that provide valuable services to low-income community members.

LOW-INCOME ENERGY EFFICIENCY

Providing energy efficiency improvements for low-income households is not only a step toward increasing energy savings—it is a crucial service that helps to lower energy bills and improve comfort and health in the home. Low-income individuals and families often reside in older homes with poor insulation and air leaks, inefficient appliances and heating/cooling systems, and inefficient doors and windows. As a result, low-income families spend a disproportionate amount of their limited income on electric bills, resulting in high energy burdens.¹

¹ See State Policies to Increase Low-Income Communities' Access to Solar Power, Center for American Progress (Sept. 23, 2014), available at <https://cdn.americanprogress.org/wp-content/uploads/2014/09/LowIncomeSolar-brief.pdf> (“Low-income households in the United States spend a higher percentage of household income on energy costs than their higher-income peers: Their energy spending is more than twice the average for non-low-income households—8.3 percent compared to 2.9 percent—and four times the median national household energy cost burden—a median of 13.3 percent compared to 3.3 percent.”). See also *Lifting the High Energy Burden in America’s Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities*, ACEEE (Apr. 2016), available at <http://aceee.org/sites/default/files/publications/researchreports/u1602.pdf>.

According to the 2015 Home Energy Affordability Gap study, average home energy bills exceeded affordable levels by \$1,346 for North Carolinians who live below 200 percent of the Federal Poverty Guidelines—the segment served by Duke’s programs.² According to experts at Fisher, Sheehan & Colton, home energy bills cease being affordable when they exceed six percent of gross household income.³ For households with incomes between 150 and 185 percent of the Federal Poverty Level, seven percent of their annual income went to paying their energy bills.⁴ Most strikingly, households with incomes below 50 percent of the Federal Poverty Level pay a staggering 35 percent of their annual income on energy bills.⁵ These energy burdens fall disproportionately on African American families, who experience the stresses of poverty at approximately double the rate of white North Carolinians.⁶ The Low Income Energy Assistance Program—a federally funded program administered by the N.C. Department of Social Services that helps low-income families pay their winter heating bills—cannot alone meet the needs of struggling North Carolina families.⁷

Energy efficiency improvements such as appliance upgrades, heating/cooling system replacements, wall, floor and ceiling insulation, and duct sealing and repair can greatly improve energy usage in a home, saving families hundreds of dollars every year.⁸

Low-income households, however, are generally less able to afford the upfront costs of

² Home Energy Affordability Gap: North Carolina, Fisher, Sheehan & Colton (Apr. 2016), *available at* http://www.homeenergyaffordabilitygap.com/03a_affordabilityData.html (“NC Home Energy Affordability Gap”).

³ Fisher, Sheehan & Colton, Home Energy Affordability Gap: Definition, http://www.homeenergyaffordabilitygap.com/01_whatIsHEAG2.html (last visited Aug. 17, 2016).

⁴ *Id.*

⁵ *Id.*

⁶ U.S. Census Bureau, North Carolina Poverty Status in the Past 12 Months from American Community Survey 5-Year Estimates, 2010-2014.

http://factfinder.census.gov/bkmk/table/1.0/en/ACS/14_5YR/S1701/0400000US37

⁷ NC Home Energy Affordability Gap.

⁸ *See, e.g.*, Top Five Reasons to be Energy Efficient, Alliance to Save Energy (July 20, 2012), *available at* <http://www.ase.org/resources/top-5-reasons-be-energy-efficient>.

needed retrofits, which can average \$7,500 or more. Such families are often constrained in their ability to take on new debt or simply may be unable to obtain financing for efficiency projects. Low-income customers often do not know how long they will remain at any given location, making it difficult to invest in measures with longer payback periods. Renters have the added disincentive to pay directly for investments in property that belongs to someone else. Likewise, landlords have little incentive to make efficiency investments because the tenant typically pays the utility bills. In the absence of a program like tariffed on-bill financing that can help fund the upfront cost of these improvements, utility programs such as the current Helping Home Fund offered by Duke Energy are essential for helping households reduce their energy bills and improve their quality of life.

RECOMMENDATIONS FOR CURRENT AND FUTURE PROGRAMS

Efficiency and Equity Groups support Duke Energy's request for modifications to its low-income assistance programs, and further recommends that Duke Energy consider additional ways to improve existing and future program offerings and to better serve its low-income customers. As set forth in more detail below, Efficiency and Equity Groups recommend that Duke Energy: (1) use existing utility data to better target the low-income customers with the highest energy burdens to receive assistance from current and future ratepayer assistance programs; (2) offer a tariffed on-bill financing program for low and moderate-income customers wishing to undertake energy efficiency improvements; (3) consider the non-energy benefits of energy efficiency when evaluating the cost-effectiveness of individual programs; (4) use current program offerings as a model for the Clean Energy Incentive Program under the Clean Power Plan; and (5) continue

supporting low-income ratepayers by making additional investments to the Helping Home Fund after allocation of the current \$20 million has been spent.

1) **Use Customer Data to Identify Low-Income Customers with High Energy Burdens**

First, Efficiency and Equity Groups recommend that Duke Energy use existing customer data to identify low-income customers facing the highest energy burdens and to target those customers for the allocation of services in its current low-income assistance programs, as well as any future programs. As discussed above, low-income customers spend a disproportionate amount of their income on energy bills. Those households at the highest poverty levels face a particularly staggering energy burden, with households below 50 percent of the Federal Poverty Level spending 35 percent of household income on energy costs.⁹ This is a significant challenge for low-income customers, and a high energy burden can have a significant negative impact on a family's health and safety. For example, high energy burdens result in thermal discomfort, inadequate lighting, unsafe housing conditions and constant emotional stress. Such families must choose between keeping the lights on or paying for other necessities, like medicine, food, or transportation. Utility disconnections, the fear of losing housing, and cutbacks on essential energy use for heating/cooling, cooking, lighting, and washing can all lead to serious mental and physical health problems. In fact, studies have shown that individuals "living in homes that are not properly heated or cooled increases cases of asthma, respiratory problems, heart disease, arthritis, and rheumatism," with children and the

⁹ Home Energy Affordability Gap: North Carolina, Fisher, Sheehan & Colton (Apr. 2016), *available at* http://www.homeenergyaffordabilitygap.com/03a_affordabilityData.html.

elderly most vulnerable to these impacts.¹⁰ In light of the significant hurdles that such households face, Efficiency and Equity Groups recommend that Duke Energy use existing data—for example, electricity use, energy intensity (\$/kwh) and disconnections—to target low-income customers with the highest energy burdens for the receipt of services under Duke Energy’s current ratepayer assistance programs, in addition to any future low-income energy efficiency programs.

2) Offer Tariffed On-Bill Financing

Duke Energy should offer a tariffed on-bill financing program to complement its existing low-income assistance programs. Tariffed on-bill programs are ideal for customers who wish to install energy efficiency improvements in their homes but can’t afford the upfront costs of retrofits. Indeed, one of the main barriers to customer participation in energy efficiency programs is the up-front cost of installing cost-effective measures, as many customers do not have the funds to pay for these upgrades and may not be able to obtain financing on favorable terms. Tariffed on-bill programs allow customers to enjoy cost-saving energy efficiency upgrades while the utility recovers its costs with a fixed charge on the customer’s monthly electric bill. If modeled on the successful Pay As You Save® (“PAYs®”)¹¹ system, the fixed monthly charge will be less than the average monthly savings from reduced energy use, allowing ratepayers to save money immediately. The tariffed charge remains on the utility bill at that meter until costs for the upgrades at that location are recovered. In this way, subsequent

¹⁰ Lifting the High Energy Burden in America’s Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities, ACEEE (Apr. 2016), *available at* <http://aceee.org/sites/default/files/publications/researchreports/u1602.pdf>.

¹¹ Pay as You Save® and PAYs® are registered trademarks of the Energy Efficiency Institute.

homeowners, tenants, or commercial occupants contribute a proportional share of the cost recovery while also benefiting from the cost-saving efficiency upgrades.

Unlike the Helping Home Fund, Duke Energy could offer a tariffed on-bill program to ratepayers at any income level. It would be an ideal complement to the Helping Home Fund because it could benefit families whose incomes are too high to qualify for the rate-payer assistance programs but who nevertheless face difficult energy burdens. For any such on-bill program, it is important to make sure that customers are not saddled with any debt or financing obligations that could make the efficiency upgrades an additional burden on low-income families. Efficiency and Equity Groups therefore recommend that Duke Energy offer a tariffed on-bill program to serve its low and moderate-income customers.

3) Consider Non-Energy Benefits of Energy Efficiency

We encourage Duke Energy and the Commission to consider the non-energy benefits of energy efficiency when evaluating the cost-effectiveness of individual programs. In addition to providing energy savings, low-income energy efficiency programs have significant, often unaccounted for, non-energy benefits from a utility, homeowner, and societal perspective. These include: reduced utility bill arrearages and disconnections; improved health, safety and comfort; increased productivity; environmental benefits such as reduced air and water pollution and carbon emissions; economic development; and job creation.¹² Disconnections, for example, currently pose a

¹² See, e.g., Tim Woolf, Synapse Energy Economics, Presentation: National Efficiency Screening Project (Aug. 21, 2014), available at http://www.homeperformance.org/sites/default/files/hpc_aceee-summer-study-2014-rvf-presentation_201408.pdf. See also Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities, ACEEE (Apr. 2016), available at <http://aceee.org/sites/default/files/publications/researchreports/u1602.pdf> ("Participants in energy efficiency programs, utilities, and whole communities experience multiple benefits from increased investments in energy efficiency. These benefits include improved health and safety, reduced risk

significant challenge. According to its recent filings with the Commission, DEC had 62,837 residential disconnections for nonpayment in its North Carolina service territory from January to July, 2016.¹³ Likewise, DEP had 39,294 involuntary disconnections in its North Carolina service territory during the same time period.¹⁴ Both Duke Energy and its low-income customers would experience significant non-energy benefits from the reduced costs associated with disconnections and late payments—and, importantly, customers would gain the non-energy benefits associated with reduced stress and would no longer be faced with the loss of energy to their homes.

Non-energy benefits are particularly important to consider for programs like the Helping Home Fund that allow for health and safety repairs, or that allow for the replacement of inefficient wood-burning or other non-electric heating sources with high-efficiency heat pumps. For example, in the case of a woodstove replacement, a resident could expect higher electric bills during winter months, but would receive improved indoor air quality. For a senior citizen or an individual with a disability or severe health issues, such a replacement might mean the difference between being able to stay in their home or having to move into an assisted living facility.

A number of states take into account such benefits when conducting cost-effectiveness screening, with states and cities such as Vermont, Rhode Island and the District of Columbia considering a range of benefits to the utility, the homeowner and society overall.¹⁵ Failing to account for the non-energy benefits of low-income energy efficiency programs undervalues those programs and puts them “at risk of being

of utility rate increases, reduced costs associated with arrearages and shutoffs, investment in the local economy, and local job creation, among others.”).

¹³ DEC, Monthly Reports on Number of Residential Disconnections for Non-Payment for January – July, 2016, Docket No. M-100, Sub 61A.

¹⁴ DEP, Monthly Reports on Number of Residential Disconnections for Non-Payment for January – July, 2016, Docket No. M-100, Sub 61A.

¹⁵ See Synapse Energy Economics, Energy Efficiency Cost-Effectiveness Screening in the Northeast and Mid-Atlantic States at 9 (Oct. 2, 2013), available at http://www.synapse-energy.com/sites/default/files/SynapseReport.2013-10.NEEP_EMV-Screening.13-041.pdf.

inaccurately deemed not cost-effective.”¹⁶ In fact, an analysis conducted by Synapse Energy Economics found that consideration of non-energy benefits in a cost-effectiveness analysis for low-income retrofit programs resulted in a benefit-cost ratio above 2.0—well over the <1.0 estimated absent consideration of non-energy benefits.¹⁷

It is essential to recognize non-energy benefits in program cost-effectiveness screening, particularly for low-income programs serving the households most impacted by a high energy burden. Moving forward, Efficiency and Equity Groups recommend that Duke Energy calculate the cost-effectiveness of its low-income programs using an evaluation framework that takes into account the many non-energy benefits associated with energy efficiency improvements.

4) Use Helping Home Fund as Model for Clean Energy Incentive Program

Fourth, Efficiency and Equity Groups encourage Duke Energy to use its existing low-income assistance programs—particularly those approved pursuant to Docket No. E-2, Sub 1023 and Docket No. E-7, Sub 1026—as a model for future use under the Clean Energy Incentive Program (“CEIP”), an optional component of the Clean Power Plan that rewards early investments in low-income energy efficiency.¹⁸ The implementation of its existing low-income programs provides Duke Energy with experience, internal processes, institutional knowledge, and data that will be exceedingly valuable in the coming years for developing and implementing low-income energy efficiency programs that will qualify for credit under the CEIP. Efficiency and Equity Groups therefore recommend

¹⁶ *Id.* at 5.

¹⁷ *Id.*

¹⁸ See U.S. Environmental Protection Agency, Fact Sheet: Clean Energy Incentive Program, <https://www.epa.gov/sites/production/files/2015-08/documents/fs-cpp-ceip.pdf> (last visited Aug. 19, 2016).

that Duke Energy proactively use the experience gained from implementing its current low-income energy efficiency offerings to inform its future involvement in the CEIP.

5) Invest More in the Helping Home Fund

Efficiency and Equity Groups recommend that Duke Energy make future investments in low-income assistance programs, continuing to fund them at a comparable or greater amount when the current \$20 million disbursement is complete. As discussed above, low-income energy efficiency programs provide not just significant energy savings, but also play a substantial role in helping low-income households to reduce a high energy burden and lower their electric bills, thereby improving their health, safety and quality of life. Duke Energy should continue to invest in low-income programs and build its role assisting the families that are in significant need of a reduced energy burden.

CONCLUSION

In conclusion, Efficiency and Equity Groups strongly support Duke Energy's request for modification of its low-income assistance programs. Furthermore, in order to provide improved assistance to low-income customers in both current and future energy efficiency programs, Efficiency and Equity Groups recommend that Duke Energy:

1. Use existing data to better target the low-income customers with the highest energy burdens to receive assistance from current and future ratepayer assistance programs;
2. Offer a tariffed on-bill financing program for low and moderate-income customers;
3. Consider the non-energy benefits of energy efficiency when evaluating the cost-effectiveness of individual programs;

4. Use current program offerings as a model for the Clean Energy Incentive Program; and
5. Make further investments in low-income energy efficiency by continuing to fund low-income programs after allocation of the current \$20 million in funds.

Respectfully submitted this 22nd of August, 2016.

VERIFICATION

I, David L. Neal, verify that the contents of the foregoing Comments on Proposed Amendments to Plans for Distribution of Ratepayer Assistance Funds are true to the best of my knowledge, except as to those matters stated on information and belief, and as to those matters, I believe them to be true. I am authorized to sign this verification on behalf of the Southern Alliance for Clean Energy, North Carolina Housing Coalition, North Carolina Council of Churches, and North Carolina Interfaith Power and Light.



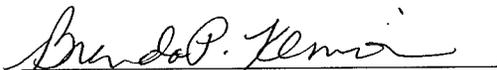
David L. Neal

Date: 8/22/2016

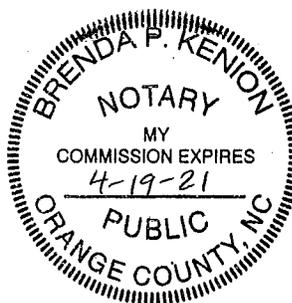
Orange County, North Carolina

Sworn to and subscribed before me this day by David Neal.

This the 22nd day of August, 2016



Signature



Brenda P. Kenion, Notary Public

My commission expires: 4-19-21

CERTIFICATE OF SERVICE

I certify that all parties of record on the service list have been served with the foregoing Comments on Proposed Amendments to Plans for Distribution of Ratepayer Assistance Funds either by electronic mail or by deposit in the U.S. Mail, postage prepaid.

This the 22nd day of August, 2016.

s/ Pat Dunlop
Pat Dunlop