

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)
)
Application of Duke Energy Carolinas,) **Docket No. E-7, Sub 1214**
LLC, for and Adjustment of Rates and)
Charges Applicable to Electric Utility)
Service in North Carolina)

DIRECT TESTIMONY AND EXHIBITS OF

JOHN HOWAT

ON BEHALF OF

**THE NORTH CAROLINA JUSTICE CENTER,
NORTH CAROLINA HOUSING COALITION,
NATURAL RESOURCES DEFENSE COUNCIL, AND
SOUTHERN ALLIANCE FOR CLEAN ENERGY**

February 18, 2020

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EXHIBITS

Exhibit JH-1 – Resume of John Howat.

Exhibit JH-2 – Duke Energy Carolinas Supplemental Response to North Carolina Justice Center, *et. al.*, Data Request 7-2, Docket No. E-7, Sub 1214, February 17, 2020.

Exhibit JH-3 – Ohio Energy Assistance Resource Guide.

Exhibit JH-4 – Low Income Home Energy Assistance Program Clearinghouse 2014 Ratepayer-funded Affordability Programs.

Exhibit JH-5 – Evaluation of Duke Energy’s Helping Home Fund (October 2017).

Exhibit JH-6 – Duke Energy Carolinas response to Public Staff Data Request 171-4, Docket No. E-7, Sub 1214, February 10, 2020.

Exhibit JH-7 – Statement of Position and Comment Letter on Duke Energy Carolinas’ Pre-Paid Advantage.

Exhibit JH-8 – Duke Energy Carolinas Response to Public Staff Data Request 171-5 (Tariff-Duke Energy Ohio Rate RSLI), Docket No. E-7, Sub 1214, February 7, 2020.

1 **I. Introduction**

2 **Q. PLEASE STATE YOUR NAME, JOB TITLE, EMPLOYER AND**
3 **BUSINESS ADDRESS.**

4 A. My name is John Howat. I am a Senior Policy Analyst at the National Consumer
5 Law Center (“NCLC”), 7 Winthrop Square, Boston, Massachusetts 02110. The
6 National Consumer Law Center is a non-profit law and policy advocacy
7 organization using expertise in consumer law and energy policy to advance
8 consumer justice, racial justice, and economic security for low-income families
9 and individuals in the United States.

10 **Q. PLEASE SUMMARIZE YOUR PROFESSIONAL BACKGROUND AND**
11 **EXPERIENCE.**

12 A. Over the past 20 years at NCLC, I have managed a range of regulatory,
13 legislative, and advocacy projects across the country in support of low-income
14 consumers’ access to utility and energy-related services. I have been involved
15 with the design and implementation of energy affordability and efficiency
16 programs, regulatory consumer protections, transportation electrification, rate
17 design, home energy improvement financing, issues related to metering and
18 billing, credit scoring and reporting, and energy burden and demographic
19 analysis.

20 I have worked on behalf of community-based organizations in 23 states and
21 have worked under contract on low-income energy and utility issues with a
22 number of federal and state agencies, including utility consumer advocates. In
23 addition, I have presented at national conferences, including for the National

1 Community Action Foundation, National Association of Regulatory Utility
2 Commissions, and National Association of State Utility Consumer Advocates.

3 I am the co-author of Access to Utility Service, a law and policy manual
4 published by NCLC, and the 2016 Lawrence Berkeley National Laboratory
5 report, “Recovery of Utility Fixed Costs: Utility, Consumer, Environmental and
6 Economist Perspectives.”¹ I am primary author of “Home Energy Costs: The
7 New Threat to Independent Living for the Nation’s Low-Income Elderly,”²
8 “Tracking the Home Energy Needs of Low-Income Households through Trend
9 Data on Arrearages and Disconnections,”³ “Rethinking Prepaid Utility Service:
10 Customers at Risk,”⁴ and “Public Service Commission Consumer Protection
11 Rules and Regulations: A Resource Guide.”⁵

12 My resume is included as Exhibit JH-1.

13 **Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE STATE PUBLIC**
14 **UTILITIES COMMISSIONS?**

15 A. I have presented testimony or comments before utility regulatory commissions in
16 Alabama, California, Idaho, Illinois, Indiana, Louisiana, Maryland,
17 Massachusetts, Missouri, New Mexico, Nevada, Pennsylvania, Rhode Island,
18 South Carolina, Texas, Vermont, Washington State, and Wisconsin. I have

¹ https://emp.lbl.gov/sites/all/files/lbnl-1005742_1.pdf.

² Clearinghouse Review, Vol. 9 - 10, Jan - Feb 2008

³ National Energy Assistance Directors’ Association, 2004,
http://www.neada.org/publications/Tracking_the_Need.pdf

⁴ National Consumer Law Center, 2012,
https://www.nclc.org/images/pdf/energy_utility_telecom/consumer_protection_and_regulatory_issues/report_prepaid_utility.pdf.

⁵ National Energy Assistance Directors’ Association, 2006,
http://www.neada.org/publications/Consumer_Protection_Guide.pdf

1 presented testimony before the North Carolina Utilities Commission
2 (“Commission”) in Dockets No. E-2 Sub 1142 and No. E-7 Sub 1146.

3 **Q. ON WHOSE BEHALF ARE YOU TESTIFYING?**

4 A. I am testifying on behalf of the North Carolina Justice Center, North Carolina
5 Housing Coalition, Natural Resources Defense Council, and Southern Alliance
6 for Clean Energy (“Justice Center *et al*”).

7 **Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

8 A. The purpose of my testimony is to address issues related to affordability of
9 electric service for Duke Energy Carolinas’ (“Company’s” or “DEC’s”) lower-
10 income residential customers, and discuss programs and policies designed to
11 mitigate affordability challenges faced by those customers.

12 I will comment on the need for low-income affordability programs, outline
13 policy objectives and program design elements featured in effective programs,
14 provide brief descriptions of a sampling of investor-owned utility bill
15 affordability programs operating in the United States, and recommend that the
16 Commission initiate a process culminating in approval of funding and
17 implementation of enhanced low-income bill payment assistance programming
18 and low-income residential energy-efficiency programming in the DEC service
19 territory. Further, I will comment on the affordability and “home energy
20 security”⁶ aspects of prepaid electric service, as recently proposed by DEC.
21 Finally, I present evidence demonstrating that elevated basic customer charges

⁶ The term, “home energy security,” as used in this testimony, refers residential customer access to and retention of basic, necessary, home utility service without foregoing other necessities (e.g., food, medicine and health care) or maintaining unhealthy indoor temperatures.

1 disproportionately harm low-income and low-volume consumers within a rate
2 class. I will show that on average, low-income households, households headed
3 by those over the age of 65, and African-American-headed households use less
4 electricity than their counterparts, and that elevated monthly fixed charges cause
5 disproportionate harm and exacerbate pre-existing problems with electric-utility
6 affordability and home-energy security faced by many of these households. I
7 recommend that the Commission reject the \$14.00 residential basic facilities
8 charge (“BFC”) as proposed by DEC and approve the \$11.15 BFC as proposed
9 by witness Jonathan Wallach. I will also recommend that the Commission direct
10 DEC to expand the Helping Home Fund and consider shifting it from a
11 shareholder- to a ratepayer-funded program.

12 II. Importance of Electric Utility Affordability

13 **Q. PLEASE DESCRIBE THE CONTEXT OF YOUR DISCUSSION OF BILL**
14 **AFFORDABILITY.**

15 A. On January 22, 2020, the Commission issued an Order directing the Public Staff
16 to file testimony regarding cost of service methodologies and “. . . affordability
17 of electricity within (the DEC) service territory as well as programs available to
18 DEC’s customers that address affordability with particular focus on residential
19 energy customers.”⁷ With this testimony, the Justice Center *et al* provide
20 evidence, discussion, and recommendations regarding bill affordability in
21 response to the Commission’s interest in the topic.

⁷ North Carolina Utilities Commission, Order Directing Public Staff to File Testimony, p. 2 (Jan. 22, 2020).

1 **Q. WHAT HAS THE COMPANY STATED IN THIS CASE WITH RESPECT**
2 **TO PROGRAMS TO MITIGATE PRICE IMPACTS ON CUSTOMERS**
3 **WHO ARE MOST IN NEED?**

4 A. DEC President and witness Stephen G. De May testified that "... more low-
5 income energy assistance programs can be offered to aid customers in need of
6 support and we have ideas for several low-income programs that we believe
7 could help accomplish this goal."⁸ Mr. De May also outlined existing programs
8 intended to assist low-income customers, including the Share the Warmth
9 Program, and energy-efficiency programs including the Neighborhood Energy
10 Saver Program.⁹

11 **Q. PLEASE COMMENT ON MR. DE MAY'S STATEMENT REGARDING**
12 **LOW-INCOME BILL AFFORDABILITY.**

13 A. Mr. De May is to be applauded for his recognition of the need for enhanced and
14 expanded programming to support low-income bill affordability, as is the
15 Commission for seeking information regarding tariffed residential rates that
16 address affordability issues. Utility bill affordability challenges faced by North
17 Carolina low-income households, and the threats to health, safety, and home
18 energy security posed by those challenges, are widely known and have been
19 documented in previous proceedings before the Commission.¹⁰

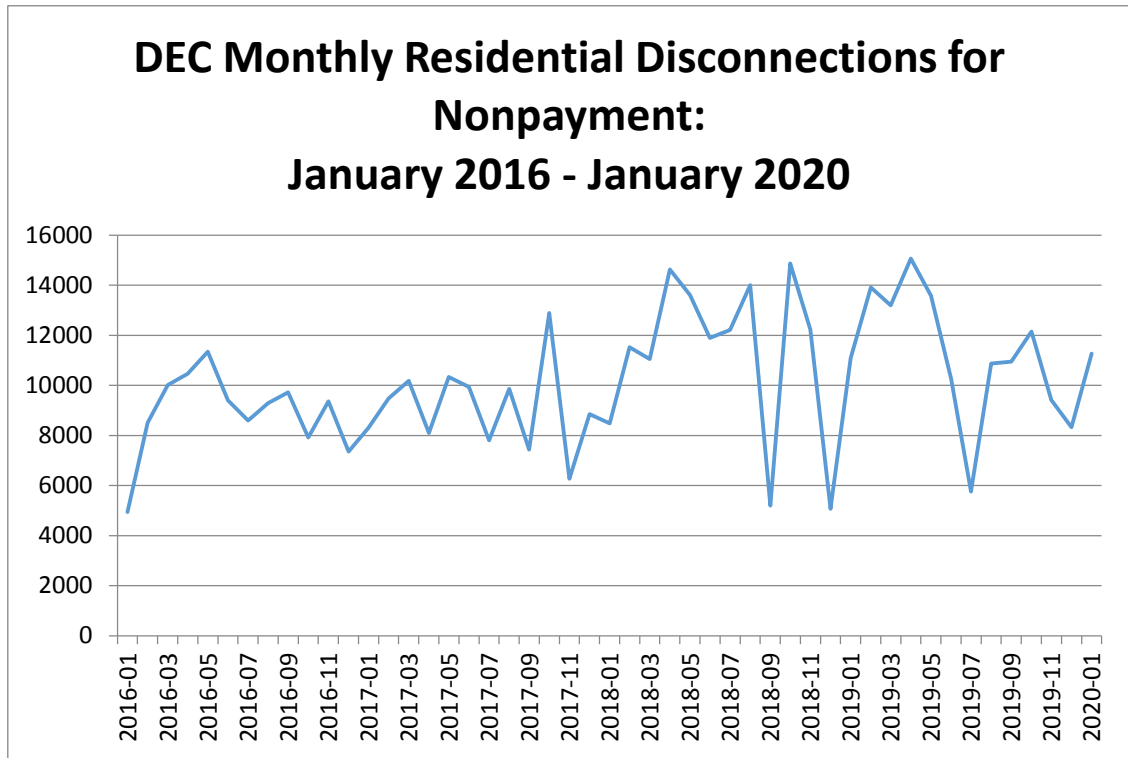
20 Disconnections for nonpayment are a key indicator of bill affordability
21 challenges in a utility service territory. Increased disconnections for nonpayment
22 in the DEC service territory over the past two years offer an indication of

⁸ Direct Testimony of Stephen G. De May, p. 9.

⁹ *Id.*, p. 8.

¹⁰ *See, e.g.*, Direct Testimony of John Howat, Docket No. E-7, Sub 1146 (Jan. 19, 2018).

1 affordability challenges faced by residential customers. Over the last four years,
2 monthly disconnections for nonpayment more than doubled—from 4,948 in
3 January, 2016 to 11,276 in January, 2020—and have generally trended upward,
4 as reflected the chart below.¹¹



5
6 Additional information provided by DEC likewise demonstrates that many
7 of the Company's customers regularly face difficulty affording their electric
8 utility service. Each month, large numbers of DEC residential customers are
9 charged late payment fees, or receive a disconnection notice. In the most recent
10 12 month period, an average of 26% of all DEC residential customers were
11 charged a late payment fee each month.¹² During that same period, an average of
12 over 9% of all residential customers were sent a notice of disconnection each

¹¹ Implementation of Rule Regarding Customer Disconnects, Docket M-100, Sub 61A (filings of Duke Energy Carolinas from January 2016 to January 2020).

¹² DEC Supplemental Response to NCJC *et al* Data Request 7-2 (Exhibit JH-2).

1 month.¹³ Payment of late charges, receipt of disconnection notices, and
 2 involuntary loss of electricity service are often signs that residential customers
 3 are experiencing trouble affording their electric bills.

4 In addition, data from the United States Census Bureau provides evidence
 5 of high rates of poverty in the DEC service territory. The table below, reflecting
 6 aggregated census block data within the DEC territory, shows a territory-wide
 7 poverty rate of 15.2%, above the national rate of 14.6%. Analysis of the DEC
 8 service territory also reveals that just over 35% of the population lives at or
 9 below 200% of the federal poverty guidelines, the income-eligibility ceiling for
 10 means-tested programs such as the federal Weatherization Assistance Program.

<i>Population, Race, Ethnicity, Poverty, Income, and Housing Characteristics of DEC Service Territory¹⁴</i>	
Population	3,331,668
<i>Percent White</i>	64.90%
<i>Percent Black</i>	24.30%
<i>Percent Latinx</i>	10.50%
<i>Percent People of Color</i>	35.10%
Total people in poverty	492,031
<i>Poverty Rate</i>	15.20%
<i>Percent under twice poverty limit</i>	35.10%
Median Income	\$59,418
Total occupied housing units	1,300,537
<i>Percent Renters</i>	38.6%
<i>Percent Owners</i>	61.4%
<i>Percent Cost-Burdened¹⁵ Renters</i>	44.0%
<i>Percent Cost-Burdened Owners</i>	19.8%
<i>Percent Cost Burdened (all)</i>	29.2%

¹³ *Id.*
¹⁴ US Census Bureau, American Community Survey 5-year Estimates (2014-2018); Platts, Electric Investor Owned Utility Service Territories. Westminster, Colorado (2009). <http://www.gisdata.platts.com> (aggregate of all census block groups with centroids falling within the Duke Energy Carolinas service territory).
¹⁵ A cost burdened household is one that spends more than 30% of monthly income on housing expenses, including rent or mortgage payments and household utility bills. *See, e.g.,* Schwartz and Wilson, *Who Can Afford To Live in a Home?: A look at data from the 2006 American Community Survey*, U.C. Census Bureau (<https://www.census.gov/housing/census/publications/who-can-afford.pdf>).

- 1 • Is administered efficiently and effectively.

2 **Q. PLEASE PROVIDE RECOMMENDATIONS REGARDING**
3 **ELIGIBILITY GUIDELINES, PARTICIPATION AND ENROLLMENT.**

4 A. Income eligibility for participation in DEC’s electricity affordability program
5 should be capped at no less than the LIHEAP income-eligibility guideline –
6 currently 150% of the federal poverty guideline (for crisis assistance). All
7 households receiving or eligible for benefits through the federal LIHEAP should
8 be automatically enrolled in the electric affordability program. In the event that
9 the electricity affordability program’s participation level does not exceed any
10 enrollment ceiling that may be established, consenting households receiving
11 benefits from other means-tested benefit programs (e.g., SNAP, Medicaid) should
12 also be automatically enrolled in the electricity affordability program.

13 **Q. PLEASE PROVIDE RECOMMENDATIONS REGARDING PROGRAM**
14 **BENEFITS.**

15 A. DEC affordability program participants should receive benefits in the form of
16 discounted electric rates or fixed credits on their electric bills. The goal of the
17 program should be to substantially lower the electricity burden¹⁶ of participants.
18 To meet these objectives, I recommend that one of the following be funded and
19 implemented:

- 20 • Percentage discount of at least 25%;
- 21 • Tiered discount setting payments at a targeted electricity burden level of
- 22 approximately 5%; or

¹⁶ The term “electricity burden” refers to the proportion of household income that is devoted to paying for residential electricity service. The terms “energy burden” and “home energy burden” refer to the proportion of income devoted to all home energy services.

- 1 • Percentage of income payment plan (“PIPP”) lowering all participants’
2 electricity bill payments to 5% of household income.

3 These program types, offered in many states around the country, are described in
4 greater detail below.

5 In order to promote efficient use of energy resources, monthly discounts or
6 bill reductions may be capped at a predetermined consumption level or bill
7 credits may be fixed. In addition, discounts are often applied to the fixed,
8 monthly customer charge in addition to the volumetric rate. Benefit levels could
9 be capped based on weather-normalized, average electricity consumption at the
10 participant’s residence, or among all DEC households with similar end-use needs
11 (i.e., general appliance use only, general appliances and hot water, or general
12 appliances, hot water and heat). However, such mechanisms should be carefully
13 designed so that they do not result in unintended threats to health and safety.¹⁷

14 **Q. PLEASE DESCRIBE YOUR RECOMMENDATIONS REGARDING**
15 **INCORPORATION OF AN ARREARAGE MANAGEMENT**
16 **COMPONENT INTO AN AFFORDABLE BILL PAYMENT PROGRAM.**

17 A. To sustain participants’ affordability and home energy security, program design
18 must be comprehensive in its approach to dealing with *both* participants’ current
19 bills and arrearage balances. Affordability objectives of energy assistance
20 programs that discount current bills, but fail to address preprogram arrears, are
21 undermined by the requirement that participants must add arrearage payoff to that

¹⁷ Some high-use electricity customers may have little control over the thermal characteristics and appliances that are used in their houses or apartments. As explained below, for such energy-intensive customers, it is especially important to make comprehensive energy-efficiency services available. Other high-use customers may require electricity-driven equipment for medical purposes. In such cases, it is important that program design features do not provide customers with an incentive to under-consume in a manner that could prove harmful to health.

1 of the current bill. In other words, incorporating arrearage management helps
2 ensure that a portion of the household energy burden reductions that come from
3 discounted current bills is not simply “given back” as customers pay off
4 outstanding balances. Similarly, energy assistance programs that focus entirely
5 on retirement of arrears but not on the affordability of current bills are unlikely to
6 result in long-term household energy security. If current bills are not affordable,
7 there is a strong likelihood that arrears will simply re-accrue after balances are
8 initially retired.

9 In order to enhance the effectiveness of discounts on *current* bills and
10 promote timely program participant payments going forward, I recommend that
11 DEC implement an arrearage write-down, or management program, in
12 conjunction with low-income rates. Effectively promoting regular bill payment
13 entails ensuring that *total* payments are affordable. A program that is intended to
14 promote regular, timely payments by participants through reduction of electricity
15 burdens to an affordable level is rendered less effective by a requirement that
16 participants pay an amount in addition to the affordable current bill.
17 Simultaneous payment of pre-existing arrears and the discounted electric bill
18 therefore runs counter to the policy objective of promoting regular, timely
19 payments by program participants.

20 There are two basic models of low-income utility arrearage management
21 that have been implemented in the United States. One entails the write-down of
22 customer arrears over time after a series of timely payments on current bills. The
23 other model entails the retirement of arrearage balances in full on a one-time

1 basis. The one-time “forgiveness” model is administratively straightforward, but
2 entails a large initial outlay of program cash resources. Write-downs over a
3 period of 12 months may provide customers with an enhanced incentive to keep
4 up with current bills (as long as they are affordable), while placing less strain on
5 program cash flow. I recommend that the Company implement an arrearage
6 management program that provides low-income rate participants to write down
7 one-twelfth (1/12) of a pre-program overdue balance with each timely payment of
8 a current bill.

9 **Q. PLEASE DESCRIBE YOUR RECOMMENDATIONS REGARDING**
10 **PROGRAM FUNDING.**

11 A. Funding for an electricity affordability program needs to be sufficient and
12 reliable. Program funding should be sufficient to provide meaningful energy
13 burden reduction and energy security for electricity customers living below 150%
14 of the federal poverty level. In addition, program administration costs of 5% to
15 7% of program benefits to the total program cost estimate are required.

16 A sustainable electricity affordability program with set benefit levels and
17 participation rates also requires funding that is predictable and reliable. A
18 uniform volumetric charge – approved prior to program implementation – is the
19 optimal funding source for an effective program.

20 **Q. PLEASE PROVIDE YOUR RECOMMENDATIONS REGARDING**
21 **PROGRAM ADMINISTRATION AND IMPLEMENTATION.**

22 A. Electricity affordability program design should foster efficient, streamlined
23 administrative procedures. With limited program resources available, funds

1 should be devoted to participant benefits rather than administrative costs to the
2 greatest extent feasible. Minimizing administrative costs while delivering an
3 effective electricity affordability program requires that certain agencies,
4 organizations and individuals work together cooperatively and efficiently. I
5 recommend that whenever possible, administrative structures and procedures that
6 apply to the state’s LIHEAP be “piggybacked” onto any new electricity
7 affordability program to create administrative efficiencies.

8 The state’s Community Action Agencies, with sufficient support from
9 program administrative funds collected by the Company, are ideally suited to
10 conduct program intake and outreach functions. The agencies that certify
11 LIHEAP eligibility could then simultaneously certify low-income rate and
12 arrearage management eligibility using the same procedures that currently apply
13 to LIHEAP.

14 DEC would be responsible for collecting program-related charges, and
15 assigning qualified customers to a tariffed, low-income rate. DEC would further
16 be responsible for tracking arrearage write-down for each participating customer.
17 The Company would also be responsible for regular reporting to the Commission
18 of program activities and financial transactions. All program costs, including bill
19 credits or discounts, approved startup and ongoing administrative expenses, and
20 approved arrearage retirement amounts should be recoverable through volumetric
21 charges, as described above.

1 Affordability rate applicants would provide documentation required for
2 certification on an annual basis. In addition, program applicants should be
3 referred to all appropriate energy efficiency services that may be available.

4 **Q. WHAT ARE THE UTILITY SYSTEM COSTS OF IMPLEMENTING THE**
5 **PROGRAM THAT YOU HAVE PROPOSED?**

6 A. Most prospective low-income assistance program costs may be readily identified
7 and quantified. Projecting the cost of implementing the affordability program
8 requires multiplying the projected number of program participants by the sum of
9 the value of the monthly discount (or revenue loss) per customer and the average
10 arrearage per customer that is retired. Program administration costs must then be
11 added to the value of discounts and retired arrearages to obtain an estimate of
12 total program costs.

13 **Q. WHAT ARE SOME OF THE UTILITY SYSTEM BENEFITS**
14 **ASSOCIATED WITH EFFECTIVE BILL PAYMENT ASSISTANCE?**

15 A. Quantifying the entire range of program benefits, including those associated with
16 utility uncollectible accounts, presents a greater analytical challenge than
17 quantifying costs. Nonetheless, quantification challenges do not appropriately
18 lead to the conclusion that benefits simply do not exist. Rather, they suggest that
19 decisions regarding adoption and implementation of low-income payment
20 assistance programs should not hinge entirely on the results of overly simplified
21 cost-benefit analysis.

22 That said, effective bill payment assistance programming may bring the
23 benefit of reduced uncollectible account write-offs. Precise quantification of the

1 bad debt mitigation impact of a low-income payment assistance program presents
2 a considerable analytical challenge, particularly on a prospective basis. The
3 extent to which this objective may be achieved is contingent on a number of
4 existing conditions and key program design and implementation elements,
5 including the following:

- 6 • A company’s existing bad debt profile and the extent to which
7 uncollectible account write-offs are currently concentrated among low-
8 income customers;
- 9 • Income and expense circumstances of the program participants;
- 10 • Program benefit levels and reduction of participants’ utility burden (i.e.,
11 reduction of the proportion of a participant’s income that is devoted to
12 utility bills);
- 13 • Outreach and targeting of “payment troubled” customers and
14 prospective program participants;
- 15 • The extent to which the program comprehensively incorporates
16 reduction of current bills with means of effectively managing pre-
17 program arrears; and
- 18 • Contact and follow-up with program participants.

19 **Q. PLEASE BRIEFLY DESCRIBE THE STRAIGHT DISCOUNT**
20 **PROGRAM DESIGN MODEL.**

21 A. A straight discount entails reducing the total utility bill by a specified percentage
22 or dollar amount. Under this model, the discount may be achieved through a set
23 customer charge reduction and/or a usage charge reduction. The states of

1 California and Massachusetts have adopted straight discount rates that are
 2 available to utility customers who participate in LIHEAP. The straight discount
 3 model reduces the energy burden of participants at a relatively low administrative
 4 cost. However, this model does not differentiate the benefit level within the broad
 5 participant group. In other words, the benefit level is the same for a household
 6 living at 50% of the federal poverty level as it is for a household living at the
 7 upper limit of the income eligibility guideline.

8 The table below illustrates the electricity burden impacts of a 25% discount
 9 on various low-income household configurations, assuming an undiscounted
 10 annual electricity service expenditure of \$1,374/year¹⁸ and preprogram arrears of
 11 \$200. For comparative purposes, the table also reflects the home electricity
 12 burdens of higher-income, nonparticipating residential customers.

Electricity Burden Impacts: 25% Discount

	Single, Minimum Wage* Worker (40 hours x 52 weeks)	2-person Household, 100% 2019 FPL	2-person Household, 150% 2019 FPL	2-Person Median Income Household	Upper-income Household (\$100,000)
Annual Pretax Income	\$15,080	\$17,240	\$25,860	\$52,172	\$100,000
Monthly Pretax Income	\$1,257	\$1,437	\$2,155	\$4,348	\$8,333
Undiscounted Annual Current Electricity Expenditure	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374
Arrearage Payment (\$200/4)	\$1,424	\$1,424	\$1,424	\$1,374	\$1,374
Undiscounted Electricity Burden (During Arrearage Payoff)	9.4%	8.3%	5.5%	2.6%	1.4%
Discounted (25%) Electricity Expenditure	\$1,031	\$1,031	\$1,031	\$1,374	\$1,374
Discounted Electricity Burden	6.8%	6.0%	4.0%	2.6%	1.4%

14 **Q. PLEASE BRIEFLY DESCRIBE THE PERCENTAGE OF INCOME**
 15 **PAYMENT PLAN MODEL.**

16 A. A percentage of income payment plan (“PIPP”) entails participant customers
 17 paying a predetermined, "affordable" percentage of income for natural gas or
 18 electric service. PIPPs therefore target benefit levels to a household’s particular

¹⁸ DEC 2018 FERC Form 1, p. 304.

1 income circumstances based on a predetermined affordability goals. However,
 2 since a separate billing and payment arrangements must be developed for each
 3 participating customer, PIPPs generally entail a somewhat higher level of
 4 administrative complexity than straight discount rates. The Colorado Public
 5 Utilities Commission recently approved a PIPP for Excel Energy customers.
 6 Illinois investor-owned utilities have also implemented a PIPP. In addition, the
 7 program model has been operative for many years in Ohio, Pennsylvania, New
 8 Jersey and Maine. A full description of the Ohio PIPP, as implemented by Duke
 9 Energy Ohio, is attached as Exhibit JH-3. The table below illustrates the
 10 electricity burden impacts of a PIPP that sets the target electricity burden level at
 11 5% of household income, assuming an undiscounted annual electricity service
 12 expenditure of \$1,374/year and preprogram arrears of \$200.

Electricity Burden Impacts: PIPP Discount (5% Target Burden)

	Single, Minimum Wage* Worker (40 hours x 52 weeks)	2-person Household, 100% 2019 FPL	2-person Household, 150% 2019 FPL	2-Person Median Income Household	Upper-income Household (\$100,000)
Annual Pretax Income	\$15,080	\$17,240	\$25,860	\$52,172	\$100,000
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Arrearage Payment (\$200/4)	\$1,424	\$1,424	\$1,424	\$1,374	\$1,374
Undiscounted Electricity Burden (During Arrearage Payoff)	9.4%	8.3%	5.5%	2.6%	1.4%
Discounted Electricity Expenditure	\$754.00	\$862.00	\$1,293.00	\$1,374	\$1,374
Discounted Electricity Burden	5.0%	5.0%	5.0%	2.6%	1.4%

13

14 **Q. PLEASE BRIEFLY DESCRIBE THE TIERED DISCOUNT MODEL.**

15 A. A tiered discount represents a hybrid of design elements of straight discount and
 16 PIPP models. In a tiered discount, the level of the discount depends on the
 17 customer's income or poverty level. Like a PIPP, the tiered discount is designed
 18 to reduce a customer's bill to an affordable level, and households in the lower
 19 income or poverty tiers receive a steeper discount than those in higher tiers.

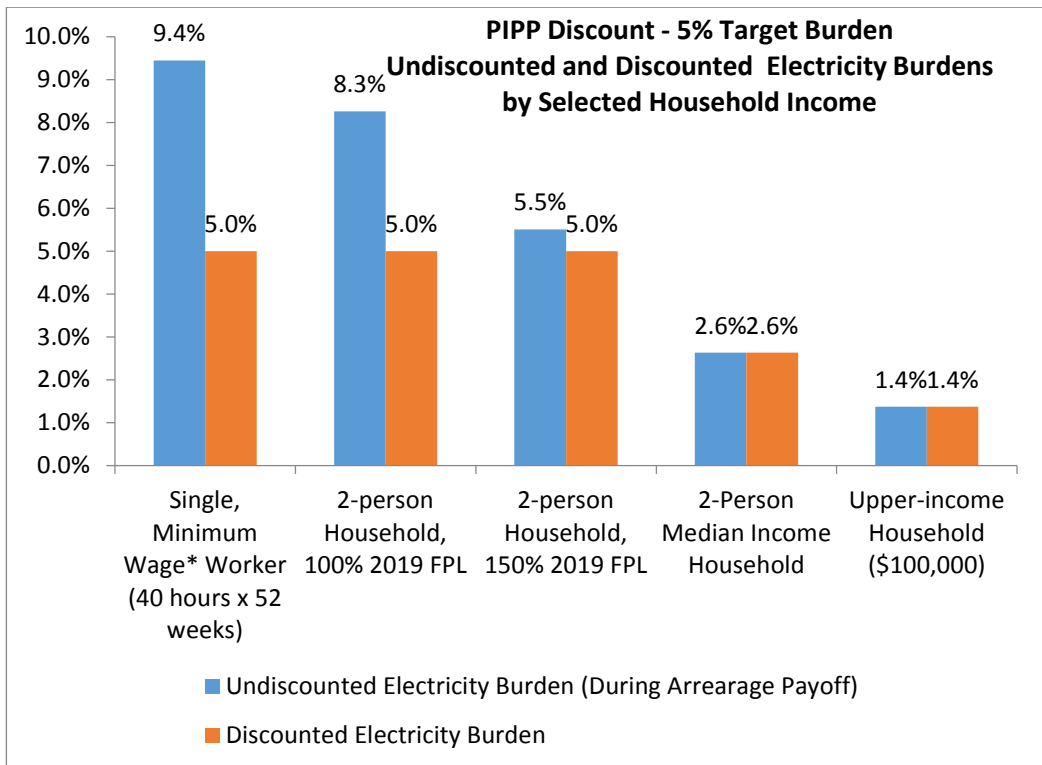
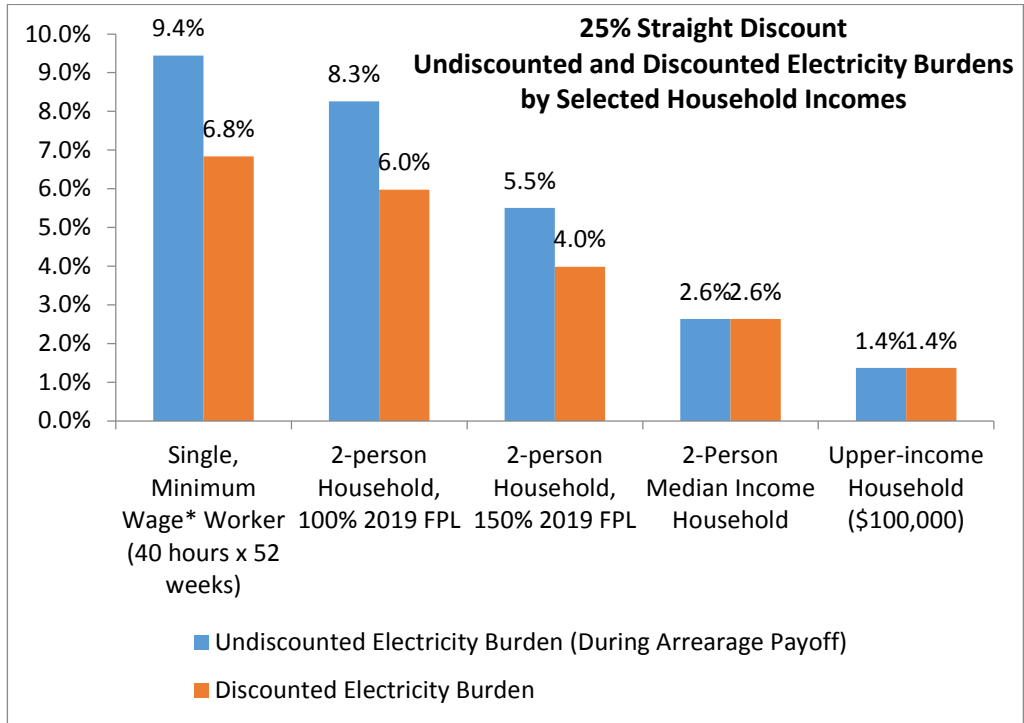
1 Thus, benefits are targeted according to a household’s income circumstances, but
 2 the individual payment arrangements and billing typified by a PIPP are not
 3 required. A tiered discount entails somewhat higher administrative cost than a
 4 straight discount, but considerably less than a PIPP. Tiered discount programs
 5 currently operate in New Hampshire and Indiana. The table below illustrates the
 6 electricity burden impacts of a tiered discount that sets the target electricity
 7 burden level at 5% of household income, assuming an undiscounted annual
 8 electricity service expenditure of \$1,374/year and preprogram arrears of \$200.

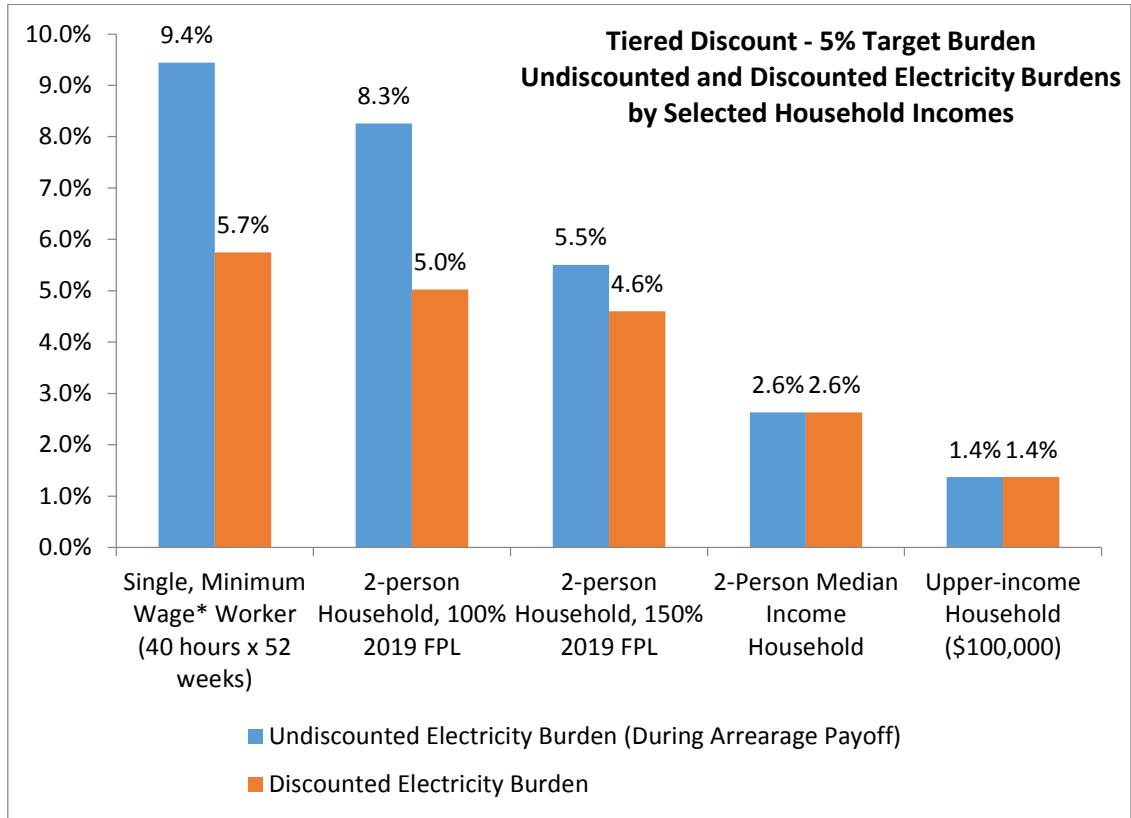
<i>Electricity Burden Impacts: Tiered Discount (5% Target Burden)</i>					
	Single, Minimum Wage* Worker (40 hours x 52 weeks)	2-person Household, 100% 2019 FPL	2-person Household, 150% 2019 FPL	2-Person Median Income Household	Upper-income Household (\$100,000)
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Undiscounted Annual Current Electricity Expenditure	\$1,374	\$1,374	\$1,374	\$1,374	\$1,374
Arrearage Payment (\$200/4)	\$1,424	\$1,424	\$1,424	\$1,374	\$1,374
Undiscounted Electricity Burden (During Arrearage Payoff)	9.4%	8.3%	5.5%	2.6%	1.4%
Discounted Electricity Expenditure	\$866.31	\$866.31	\$1,189.56	\$1,374	\$1,374
Discounted Electricity Burden	5.7%	5.0%	4.6%	2.6%	1.4%

9

10 **Q. PLEASE PROVIDE A COMPARATIVE VIEW ILLUSTRATING THE**
 11 **BURDEN IMPACTS OF THE PROGRAM DESIGNS THAT YOU**
 12 **DESCRIBED ABOVE.**

13 A. The charts on the following page, based on current poverty guidelines and the
 14 North Carolina minimum wage, provide a comparative view of the burden
 15 impacts of three program designs.





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The charts above show that discounted burden levels would vary somewhat between the respective design models. Assuming average usage and expenditures among all program participants, the straight discount model provides a uniform benefit to all program participants, regardless of income. The result is that participants with the lowest incomes are left with a higher post-discount burden than participants with somewhat higher incomes. However, under a PIPP or tiered discount design, steeper discounts are provided to households with the lowest incomes, resulting in burdens that are more consistent throughout the spectrum of participants' incomes. Thus, under the targeted PIPP and tiered discount models, all participants' bills are brought closer to an "affordable" level. Under a PIPP, participants' burdens are brought precisely to the target level, whereas under a tiered discount, actual burdens vary somewhat

1 according to variation between the participant's income and the midpoint of the
2 income tier to which the customer is assigned.

3 **Q. WHICH OF THE DESCRIBED PROGRAM DESIGNS DO YOU**
4 **RECOMMEND?**

5 A. As noted above, the administrative cost of a PIPP is somewhat higher than that
6 associated with a straight or tiered discount. The added administrative cost
7 comes primarily from the need to provide each participant with an individualized
8 bill credit. However, the benefit from targeting program resources in accordance
9 with individual household income circumstances, in my view, warrants the added
10 administrative cost. Further, DEC has long-standing experience in Ohio with
11 administering such a program. This experience could be beneficial in designing
12 and implementing a similar program structure in North Carolina. However, I
13 ultimately concur with Mr. De May that new affordability program offerings be
14 developed through a collaborative process between the Commission, the Public
15 Staff, the Company, and interested stakeholders.¹⁹ I recommend that the
16 Commission convene such a process, that it be hosted by the Commission, and
17 that participating parties and stakeholders be afforded the opportunity to file
18 comments with the Commission regarding findings and recommendations of the
19 stakeholder process.

20 **Q. IS THERE A COMPREHENSIVE SOURCE OF INFORMATION**
21 **REGARDING BILL ASSISTANCE PROGRAMS THAT HAVE BEEN**
22 **IMPLEMENTED IN THE UNITED STATES?**

¹⁹ De May Direct Testimony, p. 10.

1 A. Yes. The National Center for Appropriate Technology has operated the LIHEAP
2 Clearinghouse through a contract from the United States Department of Health
3 and Human Services, Administration for Children and Families, Office of
4 Community Services, Division of Energy Assistance. The LIHEAP
5 Clearinghouse maintains a number of informational resources related to LIHEAP
6 and other energy affordability programs. Among these resources is a database of
7 information regarding ratepayer-funded bill payment assistance and energy
8 efficiency programs operating in the United States. The most recent update on
9 these programs was completed by the LIHEAP Clearinghouse in 2014. Thus,
10 some of the information provided on the Clearinghouse website is dated.
11 However, links on the clearinghouse website²⁰ lead to basic information
12 regarding dozens of affordability programs operating across the United States. A
13 table reflecting 2014 findings is attached as Exhibit JH-4.

14 **Q. WHAT IS THE ROLE OF ENERGY EFFICIENCY IN PROVIDING FOR**
15 **ELECTRICITY BILL AFFORDABILITY AND HOME ENERGY**
16 **SECURITY?**

17 A. Comprehensive low-income energy efficiency programs provide the cornerstone
18 of low-income home energy security. Effective low-income efficiency programs
19 deliver detailed home energy assessments, heating and cooling system repair or
20 replacement, cost-effective building envelope improvements, and replacement of
21 inefficient lighting and appliances. For low-income households, these services
22 and improvements are often delivered at no up-front or repayment cost to the
23 participant, maximizing the energy savings cash flow benefits stemming from

²⁰ <https://liheapch.acf.hhs.gov/Supplements/2014/supplement14.htm>

1 these measures and contributing to increased affordability of home energy
2 services. In addition, effective, comprehensive, deep retrofit efficiency programs
3 improve indoor air quality while helping cash-strapped utility consumers
4 maintain healthy indoor temperatures. When offered in conjunction with
5 meaningful bill payment assistance, a low-income household has a much higher
6 likelihood of retaining access to essential utility service at a more affordable cost
7 than would be the case in the absence of such programs.

8 **Q. HAVE DEC LOW-INCOME CUSTOMERS HAD ACCESS TO**
9 **COMPREHENSIVE ENERGY EFFICIENCY PROGRAMMING AS YOU**
10 **DESCRIBE ABOVE?**

11 A. Yes. In the past, a limited number of DEC customers living at or below 200
12 percent of the federal poverty level had the opportunity to participate in the
13 shareholder-supported Helping Home Fund, which provided comprehensive
14 efficiency services at no cost to participants. In 2018, 642 customers participated
15 in the program at a total program cost from DEC dollars of about \$1.4 million, or
16 \$2,200 per participant. Because funding for this program supplements existing
17 state and federally funded program dollars (such as the Weatherization Assistance
18 Program), the actual amount spent on efficiency upgrades per home was likely
19 much greater. For example, according to an evaluation of the Helping Home
20 Fund from 2015 to 2017, on average \$5,151 was spent in total per home on 3,516
21 homes (across both Duke Energy service territories in North Carolina).²¹

²¹ Advanced Energy, Duke Energy, Lockheed Martin, and North Carolina Community Action Association, *Evaluation of Duke Energy's Helping Home Fund*, p. 2, (October 2017) (of critical importance was the added flexibility of dollars from the Company to allow the community action agencies to perform necessary health and safety repairs that were required before weatherization upgrades could be made. According to surveys completed by the service providers, 44 percent of the

1 Unfortunately, in 2019, no funding was made available to income-eligible DEC
2 customers.²²

3 **Q. WHAT IS YOUR RECOMMENDATION REGARDING DEC’S LOW-**
4 **INCOME ENERGY EFFICIENCY PROGRAMMING AS A MEANS OF**
5 **ENHANCING AFFORDABILITY AND HOME ENERGY SECURITY?**

6 A. As a means of mitigating any approved rate increases for low-income customers,
7 I recommend that DEC be authorized and directed to reinstate and expand an
8 efficiency program design modeled after the Helping Home Fund. I further
9 recommend that total funding be increased to maximize the number of low-
10 income customers who are able to participate annually. Finally, I recommend
11 that, to better ensure sustainability of the program, this expansion be
12 accompanied by transitioning the program from a shareholder-funded effort to
13 one that is ratepayer-funded.

14 **Q. IS PREPAID UTILITY SERVICE, AS PROPOSED BY DEC²³, AN**
15 **AFFORDABILITY PROGRAM THAT ENHANCES LOW-INCOME HOME**
16 **ENERGY SECURITY?**

17 A. No. While prepaid service typically includes (1) streaming participants useful
18 information regarding usage and expenditures, (2) features allowance for
19 numerous, small payments at any time rather than paying for usage during a
20 monthly billing cycle in a single, lump sum, and (3) involves waiver of security
21 deposit requirements for new customers or, for existing customers, application of

homes that they worked on would have otherwise been deferred were it not for the Helping Home Fund dollars) (Exhibit JH-5).

²² DEC response to PS DR 171-4 (Exhibit JH-6).

²³ DEC’s petition for approval of its prepay program was consolidated with this general rate case. Order Consolidating Dockets, *In the Matter of Petition of Duke Energy Carolinas, LLC, for Approval of Prepaid Advantage Program*, Docket No. E-7, Sub 1213 (Nov. 20, 2019).

1 a deposit toward the prepaid account, it also brings considerable risk to home
2 energy security.

3 Prepaid service is typically concentrated among lower income households
4 and brings highly-elevated rates of service disconnection. While reporting of
5 disconnections has been avoided by most utilities implementing prepaid service,
6 evidence that does exist confirms very high rates of disconnection. For example,
7 in March, 2012, Arizona Public Service Company launched a prepaid service
8 pilot program, ultimately enrolling approximately 2,000 of its residential
9 customers. Similar to other programs, the APS pilot entailed customers
10 prepaying for electricity rather than receiving a monthly bill after usage of
11 electricity.²⁴ Analysis based on the entire pilot program participant pool reflected
12 a very high rate of disconnections throughout the implementation period. In the
13 APS prepaid service pilot there was an average of 0.8 disconnections per
14 customer per month.²⁵ This result is similar to the reported Salt River Project
15 (“SRP”) disconnection rate. SRP, like other utilities implementing prepaid
16 service, does not publicly report rates of service disconnections for prepaid
17 service customers or post-paying customers. However, in response to a media
18 inquiry in 2012, SRP divulged the troubling fact that, on average, M-Power
19 customers experience loss of electric service once per month, compared to an
20 average disconnection rate among traditional payment customers of less than

²⁴ Arizona Public Service Company, “Demand Side Management Residential Prepaid Energy Conservation Pilot Program: End of Pilot Report,” February, 2015, p. 2.

²⁵ *Id.* at p. 21.

1 once per year.²⁶ Finally, prepaid service customers forfeit key consumer
2 protections regarding bill payment timeframes, secure, reliable notification prior
3 to disconnection of service, limitations on disconnection under certain
4 circumstances, the right to dispute a bill, and special protections for the elderly
5 and disabled.

6 It should be noted that the customer benefits cited by prepaid service
7 proponents are generally not exclusive to a program that requires forfeiture of
8 consumer protections and heightened risk of service loss. The same technology
9 that is used to facilitate transfer of near-real-time usage and expenditure
10 information, which can support non-punitive conservation benefits, can be
11 modified and used to provide *all* smart metered customers with such information.
12 In addition, security deposit affordability problems may be addressed through
13 regulatory and programmatic solutions that do not require participation in a
14 prepaid service program. Further, no customers are currently precluded from
15 making payment in advance of receiving a monthly bill. However, under the
16 traditional prepaid service model, evidence shows concentration of participation
17 among lower-income households, high rates of service disconnection, rates that
18 do not enhance affordability of service, limitations on access to budget billing
19 and other customer service programs that can benefit lower-income customers,
20 and requirements that participating customers forego essential consumer
21 protections.

²⁶ Randazzo, "Prepaid Utilities Criticized as Unfair," The Republic, AZcentral.com, June 19, 2012.
<http://archive.azcentral.com/business/articles/2012/06/18/20120618prepaid-utilities-criticized-unfair.html>.

1 volume consumers by low-volume consumers and reduction of the economic
2 incentive to invest in energy efficiency and other usage-reduction measures.²⁹

3 **Q. WHAT ARE THE RAMIFICATIONS OF INAPPROPRIATELY HIGH**
4 **FIXED CUSTOMER CHARGES FOR LOW-INCOME ELECTRICITY**
5 **CONSUMERS?**

6 A. On average, low-income, elderly, and African-American-headed households use
7 less electricity than their counterparts. Inappropriately high fixed customer
8 charges derived through inclusion of usage-based costs bring disproportionate
9 economic harm to these households as they are saddled with costs that are more
10 appropriately recovered through volumetric charges.

11 **Q. WHAT EVIDENCE DO YOU CITE TO SUPPORT THE CONTENTION**
12 **THAT LOW-INCOME HOUSEHOLDS, ELDERS, AND AFRICAN-**
13 **AMERICAN-HEADED HOUSEHOLDS, ON AVERAGE, USE LESS**
14 **ELECTRICITY THAN THEIR COUNTERPARTS?**

15 A. As relayed in previous testimony before the Commission³⁰, results of the United
16 States Department of Energy/Energy Information Administration Residential
17 Energy Consumption Survey provides evidence of this usage dynamic. The table
18 below illustrates that, on average, low-income households in North Carolina and
19 South Carolina use 15.6% less electricity than their higher-income counterparts,
20 elder households use 11.2% less electricity than non-elder households, and
21 African-American households use 11.6% less than white households. This data is
22 from 2009, the most recent year that the Residential Energy Consumption survey

²⁹ *Id.*, pp. 35 – 39.

³⁰ Direct Testimony of John Howat, Docket No. E-7, Sub 1146 (Jan. 19, 2018).

1 was conducted using a sample large enough to support results for geographic
2 areas smaller than census divisions.

**2009 Median Household Electricity Usage by Poverty
150% Status, Elder Status, and Race of Householder –
North Carolina and South Carolina**

Household Income	<i>kWh</i>	<i>% Difference</i>
< or = 150% Poverty	12,105	-15.6%
> 150% Poverty	14,343	

<i>Householder's Age</i>	<i>kWh</i>	<i>% Difference</i>
65 or Over	12,469	-11.2%
Less than 65	14,038	

<i>Race of Householder</i>	<i>kWh</i>	<i>% Difference</i>
African-American	12,468	-11.6%
White	14,111	

*Source: Energy Information Administration, 2009 Residential
Energy Consumption Survey*

3 **Q. PLEASE DESCRIBE THE DATA SOURCES AND METHODOLOGY**
4 **THAT YOU USED TO GENERATE THE TABLES AND CHARTS IN**
5 **THIS SECTION.**

6 A. I generated the tables depicting electricity usage using microdata from the 2009
7 Residential Energy Consumption Survey.³¹ The Survey includes detailed
8 residential energy consumption and expenditure information from 27 U.S.
9 geographic areas referred to as “reportable domains.” North Carolina and South
10 Carolina comprise one of the reportable domains.³² The Survey instrument

³¹ <https://www.eia.gov/consumption/residential/data/2009/index.php?view=microdata>.

³² The Survey results cannot be sorted to provide results that apply specifically to an individual utility service territory. However, while the electricity usage among subgroups of residential consumers in the Company’s service territory may vary somewhat from the two-state average

1 includes questions regarding a broad range of demographic factors and household
2 characteristics. Using SPSS statistical software, I sorted Survey data to generate
3 cross-tabulations of median kilowatt-hour usage by poverty status, race, and age
4 of residents.

5 Results of these analyses demonstrate that in the North Carolina-South
6 Carolina reportable domain, households headed by low-income, elderly, and
7 African-American customers use less electricity—on average—than their
8 wealthier, younger, and white counterparts. As indicated above, the Company’s
9 proposal, by penalizing low-volume consumers, will disproportionately harm
10 these groups of ratepayers.

11 The Survey data demonstrate that in 26 of 27 regions surveyed, median
12 average electricity consumption among households living at or below 150% of
13 the federal poverty guidelines is less than that of higher-income households. The
14 table below³³ reflects this consistent pattern.

usage, the relative usage patterns identified in the North Carolina and South Carolina region are highly consistent with those from other geographic regions across the United States. It is therefore reasonable to assume that the general usage patterns identified in North Carolina and South Carolina – and throughout the United States – apply to the DEC service territory.

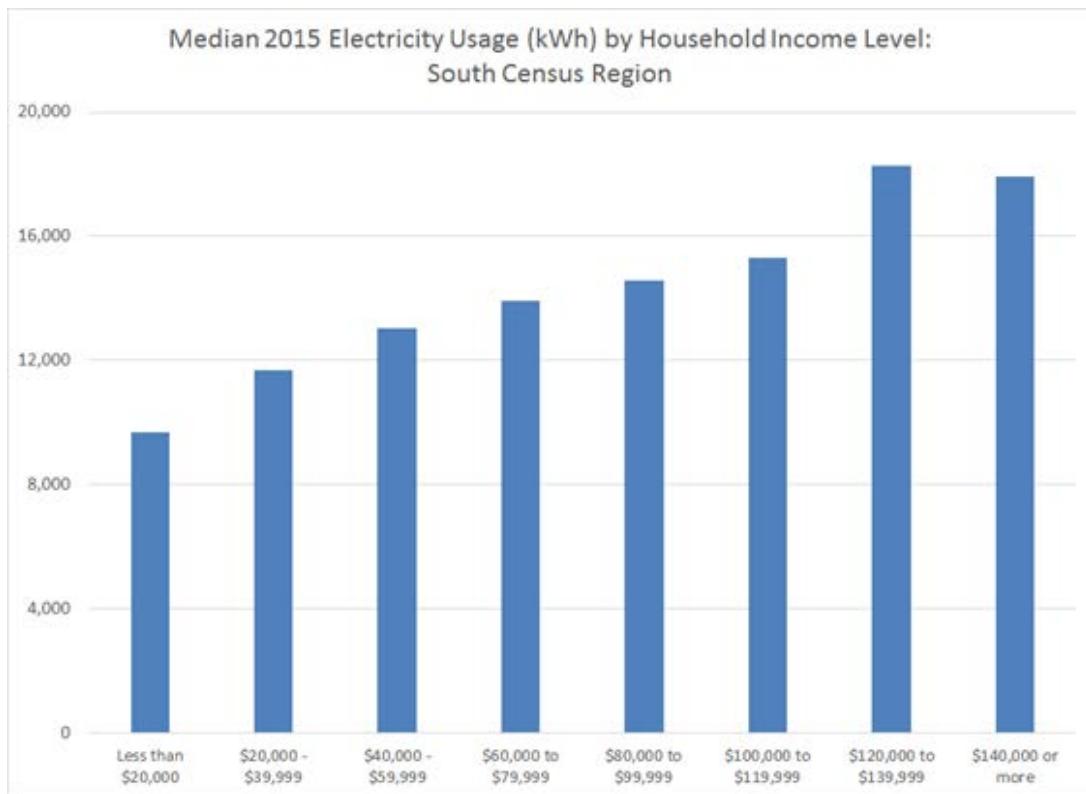
³³ Tabulated by National Consumer Law Center using U.S. Energy Information Administration 2009 Residential Energy Consumption Survey.

Median 2009 Site Electricity Usage (kWh), by 150% Poverty Status				
	< or = 150% Poverty	Above 150% Poverty	All Households	% Difference
Connecticut, Maine, New Hampshire, Rhode Island, Vermont	4,708	7,468	6,961	-37.0%
Massachusetts	4,222	6,056	5,686	-30.3%
New York	4,544	5,969	5,355	-23.9%
New Jersey	4,969	7,497	7,231	-33.7%
Pennsylvania	8,402	9,690	9,306	-13.3%
Illinois	7,350	9,116	8,432	-19.4%
Indiana, Ohio	7,831	9,999	9,365	-21.7%
Michigan	7,073	8,190	7,764	-13.6%
Wisconsin	7,449	7,889	7,727	-5.6%
Iowa, Minnesota, North Dakota, South Dakota	6,241	9,285	8,940	-32.8%
Kansas, Nebraska	8,808	9,402	9,302	-6.3%
Missouri	11,705	12,232	11,991	-4.3%
Virginia	10,997	13,859	13,231	-20.7%
Delaware, District of Columbia, Maryland, West Virginia	10,381	13,063	12,848	-20.5%
Georgia	12,727	13,816	13,499	-7.9%
North Carolina, South Carolina	12,105	14,343	13,651	-15.6%
Florida	11,905	13,760	13,212	-13.5%
Alabama, Kentucky, Mississippi	11,802	15,847	14,656	-25.5%
Tennessee	12,537	14,480	13,782	-13.4%
Arkansas, Louisiana, Oklahoma	12,628	13,646	13,421	-7.5%
Texas	10,602	13,799	12,878	-23.2%
Colorado	5,216	6,516	6,231	-20.0%
Idaho, Montana, Utah, Wyoming	10,665	9,588	9,804	11.2%
Arizona	10,088	13,056	12,105	-22.7%
Nevada, New Mexico	7,637	9,434	9,164	-19.0%
California	4,739	5,939	5,628	-20.2%
Alaska, Hawaii, Oregon, Washington	10,597	10,799	10,754	-1.9%
<i>U.S. Average</i>	<i>8,432</i>	<i>10,072</i>	<i>9,687</i>	<i>-16.3%</i>

1 **Q. WHY DO YOU REFER TO THE 2009 RECS RESULTS RATHER THAN**
2 **THE MORE RECENT 2015 RECS?**

3 A. After 2009, the RECS was conducted again in 2015. However, due to
4 dramatically reduced sampling, the 2015 RECS cannot be filtered by geographic
5 areas as small as those reflected in the 2009 RECS. In addition, the 2015 RECS

1 did not include ratio of income to poverty flags or household income brackets
2 that are narrow enough to allow for calculation of household income-to-poverty
3 ratios. However, despite the lack of geographic granularity, the relationship
4 between median electricity usage and household income identified using the 2009
5 RECS is confirmed in the 2015 survey. Data from the South Census Region of
6 the RECS—the region that includes North Carolina—demonstrates that lower-
7 income households’ median electricity usage increases in each of the RECS
8 annual household income brackets until the highest bracket of \$140,000 is
9 reached.



10

11 Source: *U.S. Energy Information Administration, Residential Energy Consumption*
12 *Survey*

13 While the best available data shows that a majority of low-income, elderly
14 and African-American-American households consume less home energy than

1 their counterparts, there is considerable usage variation within these groups. For
2 low-income households, elders, and households of color that are high-volume
3 electricity users, it is appropriate to advance energy efficiency and bill assistance
4 as proposed above to mitigate excessive home energy burdens rather than look to
5 increasing or retaining high customer charges.

6 **Q. HOW DOES A HIGH BFC AFFECT THE INCENTIVE OF LOW-**
7 **INCOME HOUSEHOLDS TO PARTICIPATE IN ENERGY EFFICIENCY**
8 **PROGRAMS OR INVEST IN ENERGY EFFICIENCY MEASURES?**

9 A. An elevated BFC shifts recovery of the a the Company's revenue requirement
10 from volumetric to unavoidable fixed charges and thereby undermines the
11 incentive for all households, including low-income households, to participate in
12 energy efficiency programs or independently invest in energy-efficient appliances
13 and improvements. In short, the higher the BFC, the lower the potential financial
14 reward from energy efficiency. This dynamic is of particular importance to low-
15 income households for whom the economic benefits of energy efficiency often
16 required to reduce home energy costs to an affordable level.

17 **Q. ARE REDUCED FIXED CHARGES COMPATIBLE WITH BILL**
18 **PAYMENT ASSISTANCE PROGRAMS PUCH AS A PIPP?**

19 A. Yes. In fact, the monthly minimum charge paid by Ohio customers participating
20 in the PIPP Plus program is \$10.³⁴ In addition to the PIPP, Duke Energy Ohio
21 administers a low-income residential service program under Rate RSLI available
22 to electricity customers with income at or below 200% of the federal poverty

³⁴ Ohio Public Utilities Commission, "Energy Assistance Resource Guide – 2019-2020," p. 5. (Exhibit JH-3.)

1 level who do not participate in the PIPP. (Income eligibility for participation in
2 the Ohio PIPP is capped at 150% of the federal poverty level.) The customer
3 charge paid by participants in the RSLI program is set at \$2 per month. The tariff
4 sheet for Rate RSLI, provided by DEC in response to Public Staff 171-5, is
5 attached as Exhibit JH-8. These examples demonstrate the compatibility of
6 reduced customer charges and low-income bill affordability programs, including
7 ones delivered by DEC's Ohio affiliate.

8 **V. Summary of Findings and Recommendations**

9 **Q. PLEASE SUMMARIZE YOUR RECOMMENDATIONS TO THE**
10 **COMMISSION.**

11 A. My recommendations to the Commission are as follows:

- 12 • A low-income percentage discount of at least 25%, a tiered discount setting
13 payments at a targeted electricity burden level of approximately 5%, or a
14 PIPP lowering all participants' electricity bill payments to 5% of household
15 income should be implemented by DEC.
- 16 • DEC should be directed by the Commission to implement an arrearage
17 management program to operate in conjunction with a current bill reduction
18 program.
- 19 • Affordability programs should be funded through uniform, volumetric
20 charges.
- 21 • New affordability program offerings should be developed through a
22 collaborative process – hosted by the Commission – between the Public
23 Staff, the Company and interested stakeholders. Participating parties should

1 be afforded the opportunity to file comments with the Commission
2 regarding findings and recommendations of the stakeholder process.

3 • DEC should expand the Helping Home Fund, or a low-income energy
4 efficiency with a similar design. Expansion should be accompanied by
5 transitioning the program from a shareholder-funded effort to one that is
6 ratepayer-funded.

7 • PrePaid Advantage service as proposed by DEC does not enhance
8 affordability, poses excessive risks, and should not be approved.

9 • The Commission should reject the BFC proposed by DEC because it
10 inappropriately reflects usage-related costs, would result in cross-subsidies
11 of high-volume consumers, would discourage energy efficiency, and would
12 disproportionately harm low-income, elder, and African-American-headed
13 households.

14 **Q. DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes.

CERTIFICATE OF SERVICE

I certify that the parties of record on the service list have been served with the Direct Testimony of John Howat on Behalf of the North Carolina Justice Center, North Carolina Housing Coalition, Natural Resources Defense Council, and Southern Alliance for Clean Energy either by electronic mail or by deposit in the U.S. Mail, postage prepaid.

This the 18th day of February, 2020.

s/ David L. Neal

David L. Neal