

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-7, SUB 1192

In the Matter of:)
Application of Duke Energy Carolinas,) **POST-HEARING BRIEF OF NORTH**
LLC For Approval of Demand-Side) **CAROLINA JUSTICE CENTER AND**
Management and Energy Efficiency) **SOUTHERN ALLIANCE FOR CLEAN**
Cost Recovery Rider Pursuant to G.S.) **ENERGY**
62-133.9 and Commission Rule R8-69)

Pursuant to Rule R1-25 of the North Carolina Utilities Commission, the North Carolina Justice Center (“Justice Center”) and the Southern Alliance for Clean Energy (“SACE”), respectfully file this post-hearing brief on Duke Energy Carolinas, LLC’s (“DEC” or “the Company”) application for approval of its annual demand-side management (“DSM”) and energy efficiency (“EE”) cost recovery and incentive rider for 2020 (“Rider 11”).

I. Introduction

Overall, the Justice Center and SACE support DEC’s application and applaud the savings achieved by the Company’s portfolio of programs. For the second consecutive year, the Company has surpassed its agreed-to annual-savings target of one percent of prior-year retail sales, driven by a highly cost-effective portfolio, resulting in over \$633 million of net benefits to customers. DEC’s continued efforts to refine its portfolio of programs to achieve increased participation and sustain cost effectiveness is also very encouraging.

However, we find several issues of concern that we believe warrant Commission attention. Foremost is the company’s forecasted 19.3% decline in energy savings for 2020 (falling to 0.84% from 1.05% in 2018), which is a major reversal of DEC’s impressive efficiency savings in recent years. We believe the effort required to sustain

savings levels in excess of 1% is in the public interest and should be a high priority for the Commission, Duke, and Collaborative stakeholders. Furthermore, we continue to have concerns with the Company's overreliance on short-lived measures, particularly lighting and its residential behavioral program, My Home Energy Report ("MyHER"). Expansion of programs that deliver longer term savings would balance the portfolio and protect against future risk from shifts in baselines and cost effectiveness. Finally, we strongly urge the Commission, Duke, and Collaborative stakeholders to dedicate additional effort and invest more resources to increase energy and bill savings for those with the greatest need, DEC's low-income customers.

On May 20, 2019, The Justice Center and SACE filed the testimony of Forest Bradley-Wright, Energy Efficiency Director for SACE, who provided a review of DEC's DSM/EE portfolio, commented on the ongoing work of the Collaborative, made recommendations to expand energy-efficiency for low-income households, and suggested data-reporting improvements for future rider proceedings.

II. Duke Energy Carolina's Performance in Delivering Energy-Efficiency Savings to its Customers

A. DEC Achieved its Target of One-Percent of Savings of Prior-Year Sales for the Second Consecutive Year, but Appears to Have Fallen Short of Reaching the Seven-Percent Cumulative Target by 2018

The Justice Center and SACE commend DEC for having met and exceeded the annual-energy savings target of one-percent of prior-year retail sales for a second consecutive year.¹ Tr. p. 100. However, despite achieving one-percent annual savings in

¹ The Merger Settlement with SACE, South Carolina Coastal Conservation League, and Environmental Defense Fund calls for annual energy savings of 1% of prior-year retail sales beginning in 2015 and cumulative savings of at least 7% over the period from 2014 through 2018. The Merger Settlement was approved by the Public Service Commission of South Carolina ("PSCSC") in Docket No. 2011-158-E.

2017 and 2018, it appears DEC did not meet its seven-percent cumulative savings target from 2014 to 2018. The Company fell short in years 2014, 2015, and 2016 in meeting the annual one-percent target, thereby undermining overall cumulative savings. Tr. pp. 101-102. Now that DEC has come to the end of the period set for the cumulative savings target and given the continuing need for more savings from energy-efficiency programs, it is time to establish new energy savings targets. Tr. p. 102. SACE was among the parties calling for a new savings target in the rider mechanism Dockets, numbers E-2, Sub 931 and E-7, Sub 1032.² As set forth in the rider mechanism comments, an energy efficiency resource standard is the single most effective policy to promote energy-efficiency savings, particularly when paired with a portfolio performance incentive.³ Moving forward, the Justice Center and SACE also recommend that the Company report on annual and cumulative savings achievements as a leading component of its DSM/EE rider application filing, rather than requiring intervenor data requests or independent calculations to track down this information. Tr. p. 102.

B. DEC's Energy-Savings Projections

DEC nearly met its energy-savings projections, falling just short of its forecast for 2018 in last year's Application. Historically, DEC has underestimated savings in its forecast by a substantial degree, but for 2018, the Company broke from this trend and provided a forecast that was much closer to actual achieved savings. Reducing the difference between projections and actuals helps foster better utility planning decisions.

² Joint Initial Comments of Natural Resources Defense Council, Southern Alliance for Clean Energy, Sierra Club, South Carolina Coastal Conservation League and North Carolina Sustainable Energy Association, NCUC Docket Nos. E-2, Sub 931 and E-7, Sub 1032 (July 10, 2019); Attorney General's Office Initial Comments on the Duke Energy Progress and Duke Energy Carolinas Demand-side Management and Energy Efficiency Mechanisms, NCUC Docket Nos. E-2, Sub 931 and E-7, Sub 1032 (July 10, 2019).

³ Id. at p. 5.

Tr. p. 102. The Justice Center and SACE are concerned, however, that DEC is projecting that it will not sustain these savings levels in the near future. Instead, DEC projects a decline in efficiency savings of more than 150 GWh in 2020, with a corresponding drop in the percent of annual sales down to 0.84%. Tr. p. 103. It is unclear whether the projected reduction in savings for 2020 is a return to the previous tendency of underestimating future performance or a sign that more work is needed to maintain or grow efficiency savings going forward. *Id.*

C. Declines in Non-Residential Savings, Largely as a result of Non-Residential Opt Outs

Commercial and industrial customers often represent the most cost-effective energy savings opportunities and can significantly reduce the overall cost of a utility's energy-efficiency portfolio. The overall total savings from 2017 to 2018 declined only a small amount. But the decline in non-residential savings was dramatic. Tr. p. 104. In 2018, 56% of the non-residential load opted out of DEC's energy-efficiency rider, reflecting large amounts of lost opportunity for additional potential energy savings with utility efficiency programs. Tr. p. 105. When adjusted to exclude non-residential opt outs, DEC's savings as a percentage of prior-year sales in 2018 was 1.67% (compared to 1.05% overall savings when including sales to opt-out customers). Were it not for the large number of opt outs, Duke could be on the path to national leadership in efficiency. *Id.* Removing opt-out customers from the calculation, DEC reports cumulative savings from 2014 through 2018 of 7.11%. *Id.* These figures suggest that if all non-residential customers had been part of the efficiency programs, and had saved at comparable levels to those who were, DEC would have met their Merger Settlement cumulative savings targets. Tr. pp. 105-106. Non-residential opt-outs represent a drag on DEC's overall

performance and have been a consistent concern for several years. Tr. pp. 103-104.

Capturing energy savings through commercial and industrial programs is one of the best ways to keep energy prices low for all customers.

D. Overreliance on short-lived Measures in Residential Behavioral Programs

Residential program savings grew by 13.8%, from 494 GWh in 2017 to 562 GWh in 2018. Much of this growth can be attributed to the Energy Efficient Appliances and Devices program which grew over 57 GWh, an increase of 42%. Tr. p. 104. While an overall increase in savings is beneficial, the majority of these savings likely originated from lighting measures. These lighting measures, along with My Home Energy Reports (“MyHER”), have dominated DEC’s residential portfolio in recent years. *Id.* Behavioral programs like MyHER provide no significant long-term or deep savings. The Justice Center and SACE recommend that DEC work with the Collaborative to develop a pathway for focusing on deeper and longer lived measures to maintain a more balanced and robust program going forward. *Id.* Among the myriad benefits of capturing deeper savings is the potential to make up savings declines from lighting as federal standards go into effect.

III. The Importance of Providing Energy Bill Savings for DEC’s low-income Customers

North Carolinians experience high levels of poverty and correspondingly high customer energy burdens.⁴ In the Collaborative, the Justice Center and SACE have

⁴ US Census Bureau, American Community Survey 5-year Estimates (2013-2017); South East Energy Efficiency Alliance and the North Carolina Justice Center, “The Power of Energy Efficiency: Expanding Access to Energy Efficiency Improvements for Low and Moderate Income North Carolina Households,” <http://www.ncjustice.org/sites/default/files/ENERGY%20EFFICIENCY%20report-REVISED-web.pdf>.

observed DEC's commitment to increasing savings for low-income customers and strongly encourage the Company to continue pursuing this goal. There are opportunities for increasing the impact of efficiency programs for the benefit of low-income customers that the Collaborative should continue to refine: expand budget allocations for programs targeted to low-income customers; refine and expand existing program offerings; deploy new programs; and prioritize increasing low-income customer impact through non-income qualified programs.

A. Recommendations to Expand Low-Income Efficiency

1. Expand Budget Allocations for Programs Targeted to Low-Income Customers

The Justice Center and SACE continue to push for a greater alignment between the overall DSM/EE program budget and the percentage of DEC's ratepayers who are near or below the poverty level. That increased spending must be matched with well-designed programs, effective delivery channels, and evaluation approaches that properly inform and support periodic refinements to overcome challenges to serving this segment of customers. Tr. p. 119. The Justice Center and SACE believe the Helping Home Fund could be a model for inclusion in the Company's ratepayer programs funded through the DSM/EE Rider, Tr. p. 120, and have encouraged the Company to evaluate the program from a cost-effectiveness perspective (recognizing the benefits of leveraged dollars from the federal weatherization program as additional benefits that are of no cost to ratepayers).

2. Refine and Expand Existing Program Offerings

Duke has shown a willingness to modify current program offerings to deliver more impact to low-income customers. Over the past year, Duke has added measures to the Neighborhood Energy Saver (NES) program and sought ways to overcome barriers in

the delivery of its Income Qualified Energy Efficiency and Weatherization program. Duke is also working on the possibility of reallocating funds between the programs to reach more low-income customers. While Duke has initiated some discussion with the Collaborative on these matters, more still needs to be done to meaningfully engage the Collaborative on changes to existing program offerings. Tr. p. 120. The Justice Center and SACE agree with Duke that more careful attention should be taken with regard to the Income Qualified Weatherization program, which was reported as falling short on budget and participation projections every year since its inception. *Id.*

3. Deploy New Programs

DEC should work to adopt new programs aimed at meeting the unique needs of low-income customers. There are numerous programs that DEC could promote including programs for manufactured homes, multifamily housing, increasing support for the Helping Home Fund, and tariffed on-bill financing. Each of these programs has been the subject of previous testimony from the Justice Center and SACE. Tr. p. 121.

4. Prioritize Increasing Low-Income Customer Impact Through Non-Income Qualified Programs

At the January 2019 Collaborative meeting, Duke presented its tracking data of low-income impact across its portfolio of residential programs.⁵ The Justice Center and SACE strongly supports this attention and looks forward to working with Duke to use its tracking data to inform strategies for capturing more impact to low-income customers in all residential programs going forward. Tr. p. 121.

⁵ See, e.g., Direct Testimony of Forest Bradley-Wright, Exhibit FBW-4, DEC Community Outreach Programs Chart.

The Justice Center and SACE remain committed to supporting DEC in its efforts to better meet the needs of its low-income customers and will continue to work through the Collaborative in each of the above areas.

IV. Activity at the Duke Collaborative and its Role in Supporting Continued Success of DEC DSM/EE Efforts

The Collaborative is comprised of a broad spectrum of regional stakeholders representing balanced interests, as well as national energy-efficiency advocates and experts. The Commission has routinely referred work to the group on a range of matters arising in recovery rider dockets, and required the Company to report back to the Commission on progress made on these issues. The Collaborative has been working with Duke to implement a number of positive changes that improve the likelihood of current and future work. These include:

- More frequent in-person meetings to achieve greater momentum on Collaborative priorities;
- Shared agenda setting to identify pertinent topics, achieve greater stakeholder buy-in, and increase discussion among participants;
- Higher levels of stakeholder involvement;
- A shift in focus away from formulaic reporting by the Company towards a greater emphasis on problem-solving opportunities and the development of program enhancement recommendations;
- Group decision-making on setting the Collaborative's annual work priorities;
- More communication and project work occurring between regular Collaborative meetings; and
- New expectations around tangible project deliverables.

Tr. p. 111.

There has been strong stakeholder participation in the Collaborative and Duke Energy has continued to involve a broad range of their staff, including program management staff, in the meetings. With Duke's continued willingness to accommodate the changes above, and the stakeholders' commitment of more time and resources to the Collaborative, we anticipate better outcomes with the Collaborative over the next year. *Id.*

While there have been great strides in improving the work of the Collaborative, there have been some historic challenges and deficiencies that require continued attention. Prior to September 2018, the Collaborative's efforts to develop new program ideas, modify existing programs, or otherwise impact the overall efficiency savings of Duke's efficiency programs were not as strong as they could be. Tr. p. 109. The Collaborative has dedicated time, energy, and resources to develop programs that either are not implemented by Duke or acted on by the Commission. To overcome this lack of efficacy, we believe it is important to learn from jurisdictions that have experienced greater success from similar stakeholder processes and consider factors that could impact the Collaborative in the future, which are discussed in further detail below. *Id.*

A. Enhancing the Value of the Collaborative

The Justice Center and SACE continue to believe that the Collaborative is useful because detailed efficiency program implementation issues are best addressed through joint problem solving and collaboration, rather than contested proceedings before the Commission. Moreover, many efficiency issues do not fit effectively into existing formal docketed proceedings. Tr. p. 110. Mr. Bradley-Wright's recommendation is to continue using the Collaborative for these types of issues but to monitor whether the effort proves more effective this year than in the past, and evaluate whether better results have been

achieved at the end of the year, or whether additional operational changes or Commission direction is warranted. Tr. pp. 110-111.

Additionally, Mr. Bradley-Wright stressed that one of the principal challenges to effectiveness at the Collaborative today is the need for more timely provision of pertinent information about potential program modifications. By the same token, the Collaborative needs sufficient time and space for group discussion to work through issues and develop practical recommendations in time to materially impact the decision making process for Duke Energy. Tr. p. 113. Mr. Bradley-Wright provided recent examples where Duke Energy brought forward ideas for program modifications or additions to the Collaborative without sufficient time to solicit or incorporate input from the Collaborative before the issue was brought before the Commission. Tr. pp. 113-15. The Justice Center and SACE believe that improvements in how Duke engages with the Collaborative during the development of new programs and modification of existing programs is extremely important for fulfillment of the purpose the Commission directed for stakeholder engagement. *Id.*

In rebuttal testimony, DEC took issue with Mr. Bradley-Wright's characterization of the past track record of the Collaborative and questioned the validity of Mr. Bradley-Wright making such assessments. Tr. pp. 85-92. First, there is no dispute regarding who speaks for the Collaborative. Mr. Bradley-Wright provided his perspective, as informed by his experiences from both this Collaborative and other energy-efficiency stakeholder processes. Similarly, Mr. Evans has provided his perspective from his years of experience as a Duke Energy employee. Having considered the Company's rebuttal testimony, the Justice Center and SACE stand by the perspective offered by Mr. Bradley-

Wright. Indeed, these conflicting perspectives highlight the need for the Commission to hear from more than just the Company when evaluating the effectiveness of the Collaborative, particularly in light of the Commission having historically referred matters raised by stakeholders in these rider dockets to the Collaborative for further discussion and refinement.

V. Continue to Make Improvements to the Collaborative

Mr. Bradley-Wright provided examples of several practices from other jurisdictions that could help the Collaborative function more productively, including:

- **Structural approach guided by the Commission:** A more structured approach with direction by the Commission could lead to more tangible outcomes. For example, the Arkansas Public Service Commission has a significant role in setting the agenda for its stakeholder group, and sets deliverables and deadlines that the collaborative group is required to meet. *Id.* By comparison, the North Carolina Utilities Commission has referred issues raised in testimony to the Collaborative, without established deliverables, timelines or requirements beyond DEC submitting testimony stating that the topics have been discussed. Tr. p. 123. In Arkansas, issues referred to their stakeholder group are also typically brought back to the Commission for specific decision-making.
- **Independent facilitator:** An independent facilitator helps at building consensus between parties and enables participants in the Collaborative to focus on the topic at hand rather than the actual running of meetings. Collaborative parties in other jurisdictions, like Arkansas, select an independent facilitator that increases confidence in

the process among participants and assists in making the meetings run more effectively.

Id.

- **Observe the work of the Collaborative:** The Justice Center and SACE request that the Commission closely monitor the work of the Collaborative this year and assess whether significant additional progress has been made, particularly with regards to tangible results from the Collaborative's work. Tr. p. 123. The current specific work tasks of the Collaborative involve:

- *Portfolio-level assessment of opportunities and challenges to maintain and exceed 1% annual energy savings*
- *Expansion of efficiency savings impact for low-income customers*
- *Modification and additions to DEC efficiency programs reflecting direct input from the work of the Collaborative*

Tr. pp. 123-24.

The Justice Center and SACE respectfully request that in 2020, the Commission seek comment from Collaborative participants on whether the Collaborative has sufficiently corrected its course or whether additional changes are needed that would warrant Commission action. Tr. p. 124.

- **DSM/EE Recovery Rider annual reporting protocol:** The Justice Center and SACE recommend the establishment of a standard annual reporting protocol for Duke's DSM/EE Recovery Rider filings to clearly present top-level data on portfolio- and program-level impact metrics and performance trends for the benefit of the Commission and the public. While the majority of information needed for such reporting is already prepared by Duke to support its annual filings, much of the information can only be acquired through data requests, which means only parties to the proceedings have access to them. *Id.*

Currently, the DEC DSM/EE Recovery Rider Application is not organized in a way that is convenient for review and analysis, nor presented in a way that would allow the Commission or the public to efficiently identify topline trends. Tr. p. 124. For example, the Merger Settlement set annual and cumulative savings targets, but DEC does not report on progress towards meeting those targets in its Application filings. Tr. pp. 124-125. DEC should develop a standard annual reporting protocol similar to the one used in Arkansas as explained by Mr. Bradley-Wright in his testimony.⁶ *Id.* Mr. Bradley-Wright pointed out key features of the reports stating that Entergy Arkansas' Excel workbook provided a narrative of its annual efficiency performance filing and made topline analysis available in an easy to use format. Tr. p. 125. The report included:

- Planned Versus Actuals – Side-by-side comparisons of projected and actual program budgets, demand savings, and energy savings;
- Budget breakdowns – indicating expenditures on incentives/direct install costs compared to marketing, administration, and EM&V costs;
- Cost/Benefit – TRC and Program Administrator Costs test results (also known as the Utility Cost Test), and TRC Net Present Value;
- Levelized cost of energy saved;
- Annual percentage of savings compared to baseline year; and
- Historic comparisons on budgets and energy savings.

Id.

Mr. Bradley-Wright also recommended that DEC incorporate the tools developed by the Lawrence Berkley National Laboratory which has developed a set of standard

⁶ See, e.g., Direct Testimony of Forest Bradley-Wright, Exhibit FBW-5, Arkansas Public Service Commission Standardized Annual Reporting Workbook.

annual reporting tools that can be used by adopted by individual jurisdictions.⁷ Tr. pp. 123-124. The Justice Center and SACE likewise recommends that the Commission order DEC to adopt a streamlined reporting tool that can be used to track the Company's performance, or, in the alternative, to work with the Collaborative on developing a standard reporting tool that would allow for easier tracking of the Company's performance.

VI. Conclusion

DEC remains a regional leader in the scope and quality of its energy-efficiency programs. It has established a strong track record by developing a portfolio of cost-effective programs that deliver value for both participating customers and all rate payers. Furthermore, the ingredients to allow the Company to build on its successes are present. North Carolina has: (1) established policies and regulations that enable utility-run energy-efficiency programs; (2) a Commission that supports and understands the value of energy efficiency; (3) strong management and leadership from DEC on energy efficiency; and (4) a diverse array of committed stakeholders who are willing to contribute knowledge, experience, time, and effort to improve upon Duke Energy's progress.

In conclusion, the Justice Center and SACE recommend the following steps to help the Company to increase its energy savings from DSM/EE programs and to work more effectively with stakeholders through the Collaborative:

- 1) The Commission should direct the Company to further engage with the Collaborative during the development of new programs and

⁷ Alex Hofman, *et al.*, *Energy Efficiency Reporting Tool for Public Power Utilities*, Lawrence Berkeley National Lab, (March 2016), <https://emp.lbl.gov/publications/energy-efficiency-reporting-tool>.

modification of existing programs in a timely, structured manner that permits the stakeholders to provide meaningful recommendations;

- 2) The Commission should direct the Company to continue collaborative working group discussions for low-income, multifamily, manufactured housing and non-residential opt outs as discussed above;
- 3) With regard to the portfolio-level assessment of opportunities and challenges mentioned above, the Commission should order the Collaborative to address the projected decline in annual savings from DEC forecasts for 2020, and develop a plan to maintain and grow current savings levels; and
- 4) The Commission should closely monitor the work of the Collaborative over the next year, invite input from stakeholders who participate in the Collaborative to report back to the Commission in 2020 on progress, and approve development of a standard annual reporting protocol for Duke's DSM/EE Recovery Rider filings along the lines of the reporting used in Arkansas.

Respectfully submitted this the 9th day of September, 2019.

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CERTIFICATE OF SERVICE

I certify that the persons on the service list have been served with the foregoing Post-Hearing Brief of North Carolina Justice Center and Southern Alliance for Clean Energy either by electronic mail or by deposit in the U.S. Mail, postage prepaid.

This the 9th day of September, 2019.

s/ David Neal