

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-2, SUB 931
DOCKET NO. E-7, SUB 1032

DOCKET NO. E-2, SUB 931)	
)	
In the Matter of:)	
Application of Duke Energy Progress,)	
LLC, For Approval of Demand-Side)	
Management and Energy Efficiency Cost)	
Recovery Rider Pursuant to N.C.G.S.)	
§ 62-133.9 and Commission Rule R8-69)	
)	
DOCKET NO. E-7, SUB 1032)	
)	
In the Matter of:)	
Application of Duke Energy Carolinas,)	
LLC For Approval of New Cost Recovery)	
Mechanism and Portfolio of Demand-Side)	
Management and Energy Efficiency)	
Programs)	

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

Pursuant to the Commission’s February 6, 2019 Order Requesting Comments, as extended by subsequent order, the Natural Resources Defense Council, Southern Alliance for Clean Energy, the Sierra Club and the South Carolina Coastal Conservation League, together with the North Carolina Sustainable Energy Association (collectively, “Commenters”)¹ submit the following joint initial comments on Duke Energy Carolinas, LLC’s (“DEC”) and Duke Energy Progress, LLC’s (“DEP”) (collectively, “the Companies”) demand-side management and energy efficiency (“DSM/EE”) cost recovery and incentive mechanisms (the “Mechanisms”).

¹ The Natural Resources Defense Council, Southern Alliance for Clean Energy and the North Carolina Sustainable Energy Association are parties in both Docket No. E-2, Sub 931 and Docket No. E-7, Sub 1032. The Sierra Club and South Carolina Coastal Conservation League are parties in Docket No. E-7, Sub 1032 only.

INTRODUCTION

In its Order Requesting Comments, the Commission directed parties to address the following topics, in addition to other issues relevant to the Mechanisms:

- (a) Whether the incentives in the current DEP and DEC Mechanisms are producing significant DSM and EE results;
- (b) Whether the customer rate impacts of the DSM/EE riders are reasonable and appropriate; and
- (c) Whether overall DSM/EE program portfolio performance targets should be adopted.

A. The incentives in the current DEP and DEC Mechanisms are producing significant DSM and EE results.

The incentives in the current DEP and DEC Mechanisms are working: the Companies' DSM/EE programs are producing significant DSM and EE results, delivering substantial savings and benefits to customers at a reasonable cost. DEC, in particular, has emerged as the leading utility in the Southeast: in 2018, DEC delivered 811 gigawatt-hours ("GWh") of efficiency savings at the meter, equivalent to 1.05% of the previous year's retail sales. However, much more can be done to encourage the Companies to capture all available cost-effective DSM and EE.

There remains ample room for improvement in the performance of the Companies' DSM/EE portfolios. DEP has not kept up with DEC, having achieved 2017 energy savings equivalent to 0.79% of prior year retail sales. And for its part, DEC projects a decline in savings of more than 150 GWh in 2020, with a corresponding drop in the percentage of prior year retail sales to 0.84%. Further, both DEC and DEP rely too heavily on short-lived measures, rather than those that deliver longer-term savings.

In addition, the Companies' programs serving low-to-moderate income customers fall short in terms of reach and depth. DSM and EE programs are key to addressing the high energy burdens borne by too many North Carolinians living in poverty or on modest incomes.² The Companies have recently placed a greater priority on increasing savings for low-income customers and are working together with members of the Companies' Carolinas Energy Efficiency Collaborative on that effort. Greater effort is needed, however, to ensure that the benefits of DSM and EE reach those customers who need them the most.

The rates of industrial and large commercial customers opting out of the Companies' programs and riders are also persistently high. While commercial and industrial customers who opt out must also certify that they have implemented their own DSM or EE measures, there is no requirement to report any resulting savings to the Company or the Commission, which inhibits DEC's ability to plan to meet future electricity needs.

Although the current mechanisms are generally working, they could and should be improved in several respects to incent the Companies to develop and implement more comprehensive DSM/EE portfolios that yield greater savings and deliver those savings to all customers in an equitable manner, while containing the costs borne by customers. To this end, Commenters make the following recommendations:³

² 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>.

³ Recognizing that the Commission directed parties who have suggested changes to DEP and DEC Mechanisms to present those suggested changes by filing redlined versions of the mechanisms, we plan to review the other parties' initial comments prior to making suggested redline edits to the Mechanisms, and to include redlined versions as attachments to our reply comments.

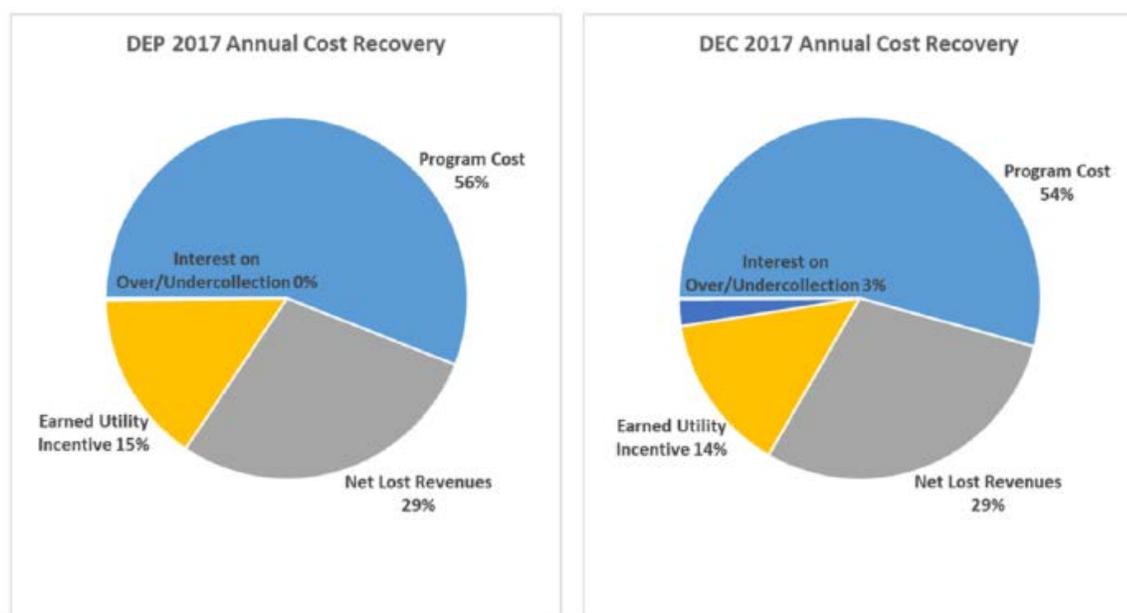
- The primary cost-effectiveness test applied to DSM/EE measures and programs should be changed to the Utility Cost Test, utilizing a “low-risk” discount rate. The Commission should investigate switching to the Total Resource Cost test with inclusion of Non-Energy Benefits.
- The Mechanisms should continue to include recovery of reasonable and prudent program costs; however, the Commission should undertake a review of the amortization of program costs and the return on those costs.
- The Commission should initiate an investigation of revenue decoupling to replace the current lost revenue recovery in the Mechanisms, and should require each of the Companies to include a rate schedule based on decoupling in their next general rate case application.
- The Portfolio Performance Incentive (PPI) should be set at 11.5% of the present value of net dollar savings for both DEC and DEP.
- The bonus incentive for achieving 1% of prior year retail sales through DSM and EE programs should be expanded and revised to incentivize more persistent and comprehensive savings.
- The Commission should review whether a reporting requirement is necessary for customers who opt out of either Company’s DSM/EE programs and rider.
- The Commission should initiate an investigation into potential changes to the Mechanisms and into several aspects of its policies regarding DSM and EE, as detailed in these comments, including adoption of an Energy Efficiency Resource Standard.

B. The customer rate impacts of the DSM/EE Mechanisms are reasonable and appropriate.

Cost-effective DSM and EE deliver substantial economic value to customers and the utility system as a whole. The corresponding rate impacts for this least cost resource are reasonable for the value achieved. Moreover, evaluating the DSM/EE rate impacts only by looking at the rider reveals only part of the picture. First, one must subtract the lost revenue component: by definition, those costs would have been collected by the utility even without the DSM or EE program. Second, DSM and EE programs reduce

fuel consumption and correspondingly reduce the fuel rider, so that effect must be subtracted. Third, some accounting of reduced capital cost should be subtracted. Even if only the first two of these steps is taken, the remaining rate impact from the DSM/EE rider will be small. Figure 1, below, provides a snapshot of each Company's 2017 revenues from its respective Mechanism.

Figure 1: Snapshot of 2017 DEP and DEC Revenues From Mechanisms⁴



C. Overall DSM/EE program portfolio performance targets should be adopted.

Commenters request that the Commission initiate an investigation into whether an overall DSM/EE program portfolio performance target, in the form of an energy efficiency resource standard (“EERS”), should be adopted. An EERS is the single most effective policy to promote energy efficiency savings. Experience in other states has shown that policies that include both targets and incentives for efficiency promote much higher levels of energy savings than policies that do not tie incentives to achievement of

⁴ Charts prepared by John D. Wilson, Southern Alliance for Clean Energy, based on the following data sources: Docket No. E-7, Sub 1192, Miller Ex. 2; Docket No. E-2, Sub 1174, Miller Ex. 2; Docket No. E-2, Sub 1206, Miller Ex. 2.

target. If the results of such an investigation support the adoption an EERS, intervenors support such a policy and recommend the Commission adopt, or recommend to the General Assembly that it adopt, an EERS.

DSM/EE MECHANISM RECOMMENDATIONS

A. The primary cost-effectiveness test applied to DSM/EE measures and programs should be changed to the Utility Cost Test, utilizing a “low-risk” discount rate.

Under the current DEC and DEP Mechanisms, DSM and EE measures are screened for cost-effectiveness using the Total Resource Cost (“TRC”) test.⁵ To survive the screening phase, measures (other than low-income measures) must score higher than 1.0, unless they can be bundled into a program to enhance the overall cost-effectiveness of the program. Programs submitted for approval, excluding low-income programs, must score at least 1.00 on both the TRC and the Utility Cost Test (“UCT”).⁶

According to the National Standard Practice Manual (“NSPM”)⁷, the TRC test is a superior cost-effectiveness test because it balances the costs and benefits amongst all stakeholders, as opposed to the UCT, which considers the perspective of the utility alone. However, the TRC is superior to the UCT only if non-energy benefits (“NEBs”) are

⁵ The TRC measures the net costs of an EE or DSM program or measure based on the total costs of the program, including the participants’ costs and the utility’s costs (excluding incentives paid by the utility to or on behalf of participants).

⁶ The UCT takes into account the costs incurred by the utility only (including incentive costs paid by the utility to or on behalf of participants) and excludes any net costs incurred by the participants.

⁷ The National Standard Practice Manual is intended to provide a comprehensive framework for assessing the cost-effectiveness of energy efficiency resources. Prior to 2017, the California Standard Practice Manual was the prevailing guidance document for energy efficiency cost-effectiveness analysis throughout the United States and Canada; however, it presented significant limitations. With these challenges in mind, a group of organizations and national experts whose goal was to update and improve the way that utility customer-funded electricity and natural gas energy efficiency resources are assessed for cost-effectiveness and compared to other resource investments formed the National Efficiency Screening Project. In 2017, they released the NSPM, which provides a set of policy-neutral, non-biased, and economically sound principles, concepts, and methodologies for the balanced assessment of resource cost-effectiveness. National Efficiency Screening Project, *National Standard Practice Manual for Assessing Cost-Effectiveness of Energy Efficiency Resources* (May 2017), available at <https://nationalefficiencyscreening.org/national-standard-practice-manual/>.

calculated and included in the TRC analysis. NEBs are the benefits from implementing an EE or DSM measure or program that accrue to the utility, program participants, and society at large, referred to as “Non-Utility Impacts” in Table 1, below:

Table 1: Examples of Commonly Considered Non-Energy Benefits⁸

Non-Utility Impact	Description
Participant impacts	Impacts on program participants, includes participant portion of measure cost, other fuel savings, water savings, and participant non-energy costs and benefits
Impacts on low-income customers	Impacts on low-income program participants that are different from or incremental to non-low-income participant impacts; includes reduced foreclosures, reduced mobility, and poverty alleviation
Other fuel impacts	Impacts on fuels that are not provided by the funding utility, for example, electricity (for a gas utility), gas (for an electric utility), oil, propane, and wood
Water impacts	Impacts on water consumption and related wastewater treatment
Environmental impacts	Impacts associated with CO ₂ emissions, criteria pollutant emissions, land use, etc.; includes only those impacts that are not included in the utility cost of compliance with environmental regulations
Public health impacts	Impacts on public health; includes health impacts that are not included in participant impacts or environmental impacts, and includes benefits in terms of reduced healthcare costs
Economic development and jobs	Impacts on economic development and jobs
Energy security	Reduced reliance on fuel imports from outside the state, region, or country

As employed in the Mechanisms, the TRC does not include participant benefits, and includes only one non-utility cost: participant measure costs. This approach is inconsistent with proper use of the TRC. Costs and benefits should be included in a symmetrical way; otherwise, the test may render biased results. According to the NSPM, “If regulators decide to include participant costs in any cost-effectiveness test, the test must also include participant benefits, and *vice versa*. This is necessary to ensure symmetrical treatment of participant impacts[.]”⁹

⁸ NSPM at 24.

⁹ Id. at 25.

Thus, until NEBs are calculated and included in the TRC analysis, the UCT is a more balanced test for evaluating the cost-effectiveness of EE and DSM measures and programs than the version of the TRC under the current Mechanisms. As a result, the Commission should revise the Mechanisms to switch to the UCT for cost-effectiveness testing. In the interim, for informational purposes, we recommend that the Commission require the Companies to conduct cost-effectiveness analysis using the TRC with NEBs identified by the Commission, and to report the results in their annual DSM/EE rider filings.

The switch to the UCT should be coupled with a shift of the discount rate from each Company's weighted average cost of capital ("WACC") to a low-risk discount rate (in the range of 0% to 3%). We make this recommendation for several reasons.

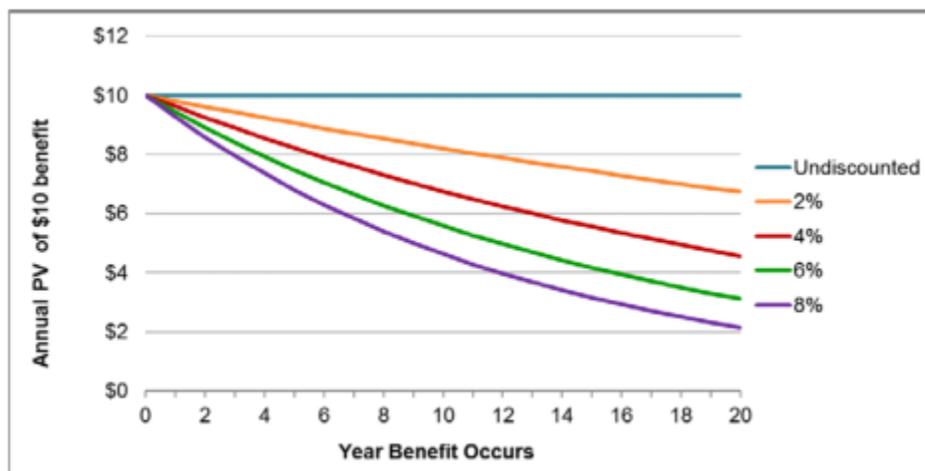
First, there is a fundamental difference of objectives between an investor-owned utility ("IOU") and that of the regulatory body and the utility's customers. IOUs have an obligation to maximize returns for their investors, whereas the customer is more focused on safe, reliable, and low-cost energy services over the long term. The cost-benefit analysis should be designed to identify utility resources that will serve that customer's needs. Moreover, in addition to keeping electricity costs low, the State and regulatory body may have other objectives—such as promoting indigenous resources, preventing fuel price volatility, or reducing carbon emissions. It is North Carolina policy to "promote adequate, reliable and economical utility service to all of the citizens and residents of the State."¹⁰ This broad policy goal warrants a greater emphasis on future impacts than utility investors are likely to ascribe. Ultimately, use of the utility WACC as a discount

¹⁰ N.C. Gen. Stat. § 62-2.

rate creates an inherent bias towards the objectives of the utility over that of the consumer.

This same fundamental difference in objectives translates into a second, but related issue: a difference in the rate of time preference. Utilizing the utility WACC as a discount rate reflects a shorter rate of time preference than that of the utility's customers or regulators. This in turn disproportionately emphasizes near-term impacts relative to the long-term benefits. The implications of this can be large, as demonstrated by Figure 2, below, which shows the result of different discount rates varied by just a few percentage points. DSM/EE programs are particularly vulnerable to this imbalanced preference for near-term costs as most efficiency resources (such as building retrofits and new construction programs) have long-lived benefits that take considerable time to fully realize.

Figure 2: Implications of Discount Rates (annual present value dollars)¹¹



¹¹ These benefits are presented as real dollars (i.e., excluding inflation), and the discount rates are real discount rates. Source: The National Standard Practice Manual (2017).

Third, the cost of capital for resource acquisition varies across different resource types. For example, large capital investments like power plants are financed through utility debt and equity. In contrast, DSM/EE program costs are typically recovered promptly, and as such, require little or no debt or equity costs—and in fact, are more akin to expenses. The WACC, however, reflects the cost of capital of all of the utility’s resources, as opposed to just that of DSM/EE resources. As a result, the *real* “WACC” of DSM/EE resources is considerably lower than the utility WACC. Thus, DEP’s and DEC’s WACCs are too high for the purposes of a true cost-effectiveness comparison of DSM/EE resources.¹²

The choice of discount rate involves deciding how much weight to give to long-term versus short-term costs and benefits—a policy decision that should be made by the regulator. The NSPM offers a step-wise framework to assist regulatory bodies and jurisdictions in making the discount rate determination:

- 1) Articulate the jurisdiction’s applicable policy goals;
- 2) Consider the relevance and consistency of a utility’s WACC with the jurisdictions policy goals;
- 3) Consider the average customer discount rate and whether this time preference adequately addresses applicable policy goals and the perspective of future utility customers;
- 4) Consider whether the societal discount rate is more consistent with the jurisdiction’s policy goals and associated regulatory perspective;

¹² Some counter-argue that the WACC is justified by the IOU’s need to recover sufficient revenues to pay its investors dividends and interest. However, the discount rate has no impact on an IOU’s ability to recover the cost of capital because debt and equity cost recovery is included in each resource’s cost-benefit calculation.

5) Consider an alternate discount rate if the regulatory, utility, customer, and societal perspectives all differ; and

6) Take into account the risk if the net risk benefits of EE resources are not accounted for elsewhere in the cost-effectiveness analysis. More guidance for each of these steps can be found within Chapter 9 of the NSPM, starting on page 81.

In conclusion, Commenters strongly encourage the Commission to

- Change the primary cost-effectiveness test in the Mechanisms to the UCT;
- Request that each Company conduct and submit the results of a cost-effectiveness analysis of its EE and DSM measures and programs using the TRC, inclusive of participant benefits;
- Decrease the discount rate to a low-risk rate (0-3%), with the specific rate to be determined according to the process set forth in the NSPM; and
- In a more comprehensive investigation, determine which NEBs should be included in cost-effectiveness analysis, and when adopted, require a return to the TRC.

B. The Mechanisms should continue to include recovery of reasonable and prudent program costs; however, the Commission should undertake a review of the amortization of program costs and the return on those costs.

The current mechanisms allow the Companies to recover their reasonable and prudent program costs; all or a portion of those costs may be deferred and amortized, with a return at the Company's WACC, for up to 10 years.

DEP began amortizing its DSM/EE program costs in 2009. Amortization with the return on program costs at the Company's WACC is likely driving up significantly the total revenues that DEP receives via its Mechanism. Commenters recognize that an

abrupt end to amortization may result in rate shock; therefore, we are not currently recommending a change to this component of the mechanism. In a more comprehensive future review, however, the Commission should consider whether amortization of program costs should be phased out. WACC is not the appropriate return on DSM/EE program costs, for the reasons discussed in Section A, above, and if amortization is retained, the Commission should consider a rate of return that is commensurate with the lower risk profile of DSM/EE resources.

C. The Commission should initiate an investigation of revenue decoupling to replace the current lost revenue recovery in the Mechanisms, and should require each of the Companies to include a rate schedule based on decoupling in their next general rate case application.

Currently, each of the Companies may recover net lost revenues attributable to its DSM/EE programs for the first 36 months after installation of a measure, or until new rates are set in a general rate case. We recognize that recovery of lost revenues is an important component of a DSM/EE compensation mechanism, as it helps to mitigate the utility's disincentive to reduce kilowatt-hour sales via DSM/EE programs. Lost-revenue adjustment mechanisms ("LRAMs") such as those included in the current Mechanisms are an imperfect solution to this problem, however.

There are several problems that render LRAMs an inferior way to address the utility's inherent disincentive to pursue efficiency savings that will result in "lost" sales. LRAMs can be cumbersome and difficult to administer. More fundamentally, with an LRAM, the utility's revenues remain linked to sales. As the Regulatory Assistance Project has explained, "[s]o long as [the utility] retains a measure of sales risk, the

achievement of public policy goals in end-use efficiency and customer-sited resources, environmental protection, and the least-cost provision of service will be inhibited.”¹³

Revenue decoupling is a better way to address the problem of lost revenues due to efficiency programs. Decoupling involves adjusting rates upward or downward to allow a utility to recover—but not over- or under-recover—its authorized revenue requirement, despite fluctuations in retail sales due to utility DSM/EE programs or other factors. Unlike LRAMs, “decoupling . . . accomplishes the dual goals of both removing the throughput incentive and continuing to send more economically appropriate price signals to customers. Both of these principles are key to successful energy efficiency programs.”¹⁴ Accordingly, ACEEE observes, “While an LRAM may bring parties to the table in circumstances where decoupling is not feasible, we recommend that LRAM policies be viewed as a temporary way to deal with utilities’ concerns about fixed cost recovery—i.e., a step toward full revenue decoupling.”¹⁵

The Commission has previously recognized that decoupling can promote the public interest: the Commission has approved a form of margin decoupling for gas utilities pursuant to N. C. Gen. Stat. § 62-133.7, which authorizes the Commission to approve a mechanism that tracks and trues up gas utility rates for variations in average per-customer usage upon finding that the mechanism is appropriate for that purpose and in the public interest. See, e.g., Order Approving Partial Rate Increase and Requiring Conservation Program Filing and Reporting, Docket No. G-9, Sub 550 (October 24,

¹³ Regulatory Assistance Project, Revenue Regulation and Decoupling: A Guide to Theory and Application (November 2016) at 13, <http://www.raponline.org/wp-content/uploads/2016/11/rap-revenue-regulation-decoupling-guide-second-printing-2016-november.pdf>.

¹⁴ Id. at CS7.

¹⁵ ACEEE, Policies Matter: Creating a Foundation for an Energy-Efficient Utility of the Future (2015) at 8-9, available at <https://aceee.org/policies-matter-creating-foundation-energy>.

2008) at 24-25 (finding that gas utility’s decoupling mechanism was in the public interest because, among other things, it “removes Company disincentives pertaining to efficiency efforts and conservation programs”).

Decoupling can and should be implemented in a way that protects consumers, and as part of its investigation, the Commission should consider safeguards such as the following, as recommended by John Howat of the National Consumer Law Center:

- 1) rate increase collars that limit upside rate volatility;
- 2) explicit regulatory review and adjustment of return on equity to account for altered utility risk profiles;
- 3) regular review and adjustment of baseline utility cost structure assumptions, including cost of capital; and
- 4) inclining block rates, where decoupling surcharges are tied to higher usage blocks and bill credits to the initial usage block.¹⁶

For these reasons, Commenters recommend that the Commission investigate the use of decoupling to sever the link between sales and revenue and eliminate the disincentive to pursue efficiency. To inform this investigation, we recommend that the Commission direct the Companies to file, for informational purposes only, a rate schedule based on decoupling in their next general rate case. This would assist the Commission and interested parties in understanding what a decoupled rate structure would look like and how it would impact customer rates.

¹⁶ Ralph Cavanagh & John Howat, Finding Common Ground Between Consumer and Environmental Advocates, ELECTRICITYPOLICY.COM at 5 (May 2012), https://www.nclc.org/images/pdf/energy_utility_telecom/additional_resources/decoupling-common-ground.pdf.

D. The Portfolio Performance Incentive (PPI) should be set at 11.5% of present value of net dollar savings for both DEC and DEP.

Under the current Mechanisms, each Company receives a Portfolio Performance Incentive (“PPI”) that is a percentage of the present value of the net dollar savings of each Company’s portfolio calculated using the UCT. DEC’s PPI is set at 11.5%, and DEP’s PPI is set at 11.75%.

Recovery of program costs and lost revenues, while important components of the Mechanisms, are insufficient to encourage the Companies to invest in efficiency as an earnings opportunity. Performance incentives play a crucial role in encouraging utilities to pursue DSM and EE savings: research by ACEEE shows that states with incentive policies had substantially higher savings (0.9%) than states without incentives (0.5%).¹⁷ Incentives structured as a share of net benefits, like the PPIs, are the most common type of incentive for energy efficiency.¹⁸

Because the PPIs are working reasonably well to encourage good DSM/EE performance and are not allowing excessive earnings by the Companies, we do not propose significant changes to them at this time. We do recommend that the PPI be set at 11.5% for both Companies, as that PPI has been sufficient to encourage strong performance by DEC. In addition, as with amortization of program costs, the Commission should investigate phasing out amortization of the PPI or, at a minimum, reducing or eliminating the return on the PPI.

¹⁷ Beyond Carrots at 24. ACEEE points out that it is important to note that while these results provide a useful comparison, they are complicated by the fact that many of the same states that have incentives also have Energy Efficiency Resource Standards.

¹⁸ Id. at 7.

F. The bonus incentive for achieving 1% of prior year retail sales through DSM and EE programs should be expanded and revised to incentivize more persistent and comprehensive savings.

Intervenors recommend several adjustments to the bonus incentive in each of the Mechanisms. Currently, each Company may earn a bonus incentive of \$400,000 per year if its DSM/EE portfolio achieves incremental energy savings equivalent to 1% of the prior year's system retail electricity sales. Improvements are needed to this portion of the Mechanisms to incent the Companies to pursue higher levels of energy savings, to design and implement programs with longer measure lives, and to ensure that their DSM/EE programs are reaching the low-to-moderate income customers who need them most.

Allowing the Companies an opportunity to earn a bonus incentive conditioned on achievement of certain quantifiable performance metrics will encourage better performance in each of these areas. These types of performance metrics coupled with proper incentives have proven effective at influencing utility behavior and guiding utility decision-making so that it better aligns with state policy.¹⁹ Performance metrics coupled with proper incentives provide benefits for both consumers and the utilities.²⁰

First, intervenors recommend that the bonus be increased to \$500,000 per year if the Company achieves savings of 1% of prior year retail sales; however, in order to encourage further adoption, the one-percent benchmark should include sales to opt-out customers as well. This change will reward strong DSM/EE portfolio performance and further incentivize the Companies to exceed projected savings. The Commission should also consider whether to implement a tiered approach, such that a portion of the bonus is

¹⁹ Seth Nowak et al., *Beyond Carrots for Utilities: A National Review of Performance Incentives for Energy Efficiency* 20 (2015), available at <https://aceee.org/research-report/u1504>.

²⁰ David Littell, et al., *Next-Generation Performance-Based Regulation, 21st Century Power Partnership* 1 (2017), available at <https://www.nrel.gov/docs/fy17osti/68512.pdf>.

rewarded for achieving savings targets higher than the current 1% of the prior year's system retail electricity sales.

Second, intervenors recommend an additional incentive of \$500,000 if the Company achieves incremental energy savings of 0.5% of the prior year's system retail electricity sales from measures with lifespans greater than seven years.²¹ Commenters recognize that implementation of this change may require the Companies to track and report additional data. Nevertheless, the seven year cutoff best balances the need to incentivize long-term and lasting savings with modestly increased, simple reporting requirements.

Third, intervenors recommend an additional incentive of \$500,000 if 50% of the Company's savings from the residential class are attributable to measures delivered to low-to-moderate income ("LMI") customers.²² These customers are typically the most sensitive to electricity costs, yet have the least ability to adopt DSM/EE measures on their own. As a result, LMI customers may be forced to bear an inequitable energy burden. An incentive for achieving savings from measures delivered to LMI customers will insure that the benefits of the utilities' DSM/EE programs are distributed equitably.

Finally, intervenors recommend a penalty of \$1.5 million if the Company fails to achieve incremental energy savings of 0.75% of prior year retail sales. While the bonus incentives recommended will create new earnings opportunities for the utilities, there is currently no downside for failing to achieve any specific level of savings. A balanced policy should include both incentives and penalties in order to counteract the throughput

²¹ For purposes of this bonus incentive, savings need not be additional to the 1% savings eligible for the separate bonus incentive, but may represent a portion of those savings.

²² To count toward this bonus incentive, measures need not be included in income-qualified programs, or programs that are specifically targeted to low-income customers.

incentive.²³ These types of symmetrical incentives more closely mirror the forces that are present in a competitive environment.²⁴

G. The Commission should review whether a reporting requirement is necessary for customers who opt out of either Company's DSM/EE programs and rider.

Currently, industrial customers, and commercial customers with annual consumption of 1 million kilowatt-hours or more, that implement alternative DSM/EE measures may opt out of either Company's DSM and/or EE programs and rider.

North Carolina's opt-out policy requires that industrial and large commercial customers who opt out have or will implement their own DSM/EE measures at their own expense, and therefore imposes an obligation on those customers to so certify. The statute allowing industrial customers to opt out DSM/EE programs, which also applies to large commercial customers via NCUC Rule R8-69(d)(1), requires a customer to notify its electric power supplier that

at the industrial customer's own expense, the industrial customer has implemented at any time in the past or, *in accordance with stated, quantified goals for demand-side management and energy efficiency*, will implement alternative demand-side management and energy efficiency measures.

N.C. Gen. Stat. § 62-133.9(f) (emphasis added). Similarly, NCUC Rule R8-69(d)(1) requires any industrial and large commercial customer wishing to opt out of DSM/EE programs and rider to notify its electric power supplier that "it has implemented or,

²³ Matthew Brown, State Energy Efficiency Policies: Options and Lessons Learned, Alliance to Save Energy 10-11, https://www.ase.org/sites/ase.org/files/state_EERS.pdf (focusing specifically on policies that compliment an energy efficiency resource standard).

²⁴ Melissa Whited, Tim Woolf, and Alice Napoleon, Utility Performance Incentive Mechanisms: A Handbook for Regulators, Synapse Energy Economics 41, available at https://www.synapse-energy.com/sites/default/files/Utility%20Performance%20Incentive%20Mechanisms%2014-098_0.pdf.

in accordance with stated, quantifiable goals, will implement alternative demand-side management or energy efficiency measures.” (Emphasis added.)

The reference in both statute and rule to “stated, quantifiable goals” for DSM/EE measures contemplates that customers opting out will *state* and *quantify* those goals in the notifications they submit to their electric suppliers. Instead, the DEC and DEP opt-out notification forms simply parrot that language of the rule—they do not actually require customer to state and quantify any goals, let alone report the demand and/or energy savings from the measures they install.²⁵ Large customers may argue that such information is competitively sensitive; however, the Companies, the Commission, and parties routinely deal with confidential business information, and there are provisions to safeguard such information from public disclosure by executing confidentiality agreements or filing it under seal.

On several occasions, the Commission has directed the Companies to take steps to reduce the numbers of customers opting out of their DSM/EE programs and rider. Although the Companies have implemented some changes aimed at encouraging greater participation by large customers (such as creating greater flexibility to opt back in), these steps have not meaningfully reduced opt-outs. Given the energy intensity and efficiency potential in the non-residential sector, the Commission and the Companies have a right to understand what measures opt-out customers are employing and what level of demand- and/or energy-reduction those measures are delivering.

²⁵ See Duke Energy Carolinas Energy Efficiency and Demand-Side Management Decision Form, available at <https://www.duke-energy.com//media/pdfs/for-your-business/nc-ee-demand-side-management-decision-form.pdf>; Duke Energy Progress opt-out notification form, available at <https://www.duke-energy.com//media/pdfs/for-your-business/opt-out-letter-nc-fillable.pdf>.

The Commission should undertake a process to develop a template for the Companies' opt-out customers to report to DEC or DEP—consistent with N.C. Gen. Stat. § 62-133.9(f) and NCUC Rule R8-69(d)(1)—their stated and quantifiable goals for the DSM or EE measures they implement at their own expense, as well as the demand and/or energy savings from those measures. Arkansas and Ohio provide examples of other states that require reporting by opt-out customers, and the Commission may wish to consider those examples.²⁶

H. The Commission should initiate an investigation of an Energy Efficiency Resource Standard.

Intervenors recommend that the Commission initiate an investigation into whether an overall DSM/EE program portfolio performance target, in the form of an energy efficiency resource standard (“EERS”), should be adopted. An EERS is the single most effective policy to promote energy efficiency savings. Experience in other states has shown that policies that include both targets and incentives for efficiency promote much higher levels of energy savings than policies that do not tie incentives to achievement of target.²⁷ On the other hand, where targets have been established, utilities consistently meet or exceed their targets.²⁸ An EERS would lead to greater transparency as an explicit target would mean consumers will be able to easily understand utility incentives

²⁶ Arkansas Public Service Commission Rules for Conservation and Energy Efficiency Programs, Section 11, available at http://www.apscservices.info/rules/energy_conservation_rules_06-004-R.pdf; Ohio Revised Code, Section 4928.6616, available at <http://codes.ohio.gov/orc/4928.6616v1>.

²⁷ Beyond Carrots for Utilities at 26 (“Of those states with shared net benefits performance incentives in place, seven of them have EERS and five do not. Those with EERS have twice the energy savings relative to sales, and more than double the electric energy efficiency budgets as a percentage of utility revenue than the states with no EERS or similar policy.”).

²⁸ Beyond Carrots for Utilities at 19-20, 22-23; Martin Kushler, IRP vs. EERS: There’s one clear winner among state energy efficiency policies, American Council for an Energy-Efficient Economy, <https://aceee.org/blog/2014/12/irp-vs-eers-there%E2%80%99s-one-clear-winner-> (noting that state with an energy efficiency resource standard showed over three and a half times more utility spending on energy efficiency programs and electricity savings achieved.).

and recognize utility successes.²⁹ While energy efficiency savings count toward utilities' Renewable Energy and Energy Efficiency Portfolio Standards ("REPS") obligation under N.C. Gen. Stat. § 62-133.8, the use of those savings to comply with the REPS are capped. Energy efficiency provides independent benefits that must be recognized including lower risk, promotion of local economic development, economic benefits, as well as increased reliability and resiliency.³⁰

An EERS would have numerous benefits for consumers in North Carolina and would assist the State in accomplishing its policy goal of attaining "the least cost mix of generation and demand reduction measures which is achievable, including consideration of appropriate rewards to utilities for efficiency and conservation which decrease utility bills[.]" N.C. Gen. Stat. § 62-2(a)(3a). Implementation of an EERS is soundly within the Commission's authority to "compel any public utility to provide . . . reasonable service[.]" N.C. Gen. Stat. § 62-32. North Carolina courts rely on the policy goals of the State to decide whether services are reasonable. *State ex rel. Utilities Comm'n v. Mackie*, 79 N.C. App. 19, 32 (1986) ("Chapter 62 of the North Carolina General Statutes confers upon the Utilities Commission broad powers to regulate public utilities and to compel their operation in accordance with the policy of the State[.]"). In North Carolina, it is the policy of the State that "energy planning and fixing of rates in a manner to result in the least cost mix of generation and demand reduction measures which is achievable, including consideration of appropriate rewards to utilities for efficiency and conservation which decrease utility bills." N.C.G.S. § 62-2(a)(3a). Additionally, it is the policy of the

²⁹ Next-Generation Performance-Based Regulation at 14.

³⁰ Maggie Molina and Marty Kushler, Policies Matter: Creating a Foundation for an Energy-Efficiency Utility of the Future, American Council for an Energy-Efficient Economy 3-4 (2015), available at <https://aceee.org/sites/default/files/policies-matter.pdf>.

State that rates be set in order to “avoid[] wasteful, uneconomic and inefficient uses of energy.” N.C.G.S. § 62-2(a)(4).

The methods the Commission is authorized to take to achieve reasonable service are similarly broad. N.C. Gen. Stat. § 133.9(d) authorizes the NCUC to “approve other incentives to electric public utilities for adopting and implementing new demand-side management and energy efficiency measures.” Commission Rules R8-69(a)(2), R8-69(c)(1), and Rule R8-69(e)(1) each recognize the need to allow utilities to recover certain costs associated with implementing energy efficiency measures.

If the results of such an investigation support the adoption an EERS, intervenors support such a policy and recommend the Commission adopt, or recommend to the General Assembly that it adopt, an EERS.

CONCLUSION

Commenters make the following recommendations with regard to the Mechanisms and DSM/EE policies discussed in these comments:

- The primary cost-effectiveness test applied to DSM/EE measures and programs should be changed to the Utility Cost Test, utilizing a “low-risk” discount rate. The Commission should investigate switching to the Total Resource Cost test with inclusion of Non-Energy Benefits.
- The Mechanisms should continue to include recovery of reasonable and prudent program costs; however, the Commission should undertake a review of the amortization of program costs and the return on those costs.
- The Commission should initiate an investigation of revenue decoupling to replace the current lost revenue recovery in the Mechanisms, and should require each of the Companies to include a rate schedule based on decoupling in their next general rate case application.
- The Portfolio Performance Incentive (PPI) should be set at 11.5% of the present value of net dollar savings for both DEC and DEP.

- The bonus incentive for achieving 1% of prior year retail sales through DSM and EE programs should be expanded and revised to incentivize more persistent and comprehensive savings.
- The Commission should review whether a reporting requirement is necessary for customers who opt out of either Company's DSM/EE programs and rider.
- The Commission should initiate an investigation into potential changes to the Mechanisms and into several aspects of its policies regarding DSM and EE, as detailed in these comments, including adoption of an Energy Efficiency Resource Standard.

Respectfully submitted this 10th day of July, 2019.

s/ Gudrun Thompson
Gudrun Thompson
N.C. Bar No. 28829
Southern Environmental Law Center
601 West Rosemary Street, Suite 220
Chapel Hill, NC 27516
Telephone: (919) 967-1450
gthompson@selcnc.org

s/ Benjamin W. Smith
Benjamin W. Smith
Regulatory Counsel
North Carolina Sustainable Energy Association:
N.C. State Bar No. 48344
4800 Six Forks Road, Suite 300
Raleigh, NC 27609
Telephone: (919) 832-7601
ben@energync.org

*Attorneys for Southern Alliance for Clean Energy,
the Natural Resources Defense Council, the South
Carolina Coastal Conservation League, and the
Sierra Club*

CERTIFICATE OF SERVICE

I certify that the parties of record on the service list have been served with the foregoing 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 either by electronic mail or by deposit in the U.S. Mail, postage prepaid.

This the 10th day of July, 2019.

s/ Gudrun Thompson