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August 19, 2019

***Via Electronic Filing
and FedEx***

Martha Lynn Jarvis
Chief Clerk
North Carolina Utilities Commission
430 North Salisbury Street
Dobbs Building
Raleigh, NC 27603-5918

RE: Application of Duke Energy Progress, LLC pursuant to G.S. 62-133.9 and
Commission Rule R8-69 for Approval of Demand-Side Management and
Energy Efficiency Cost Recovery Rider
Docket No. E-2, Sub 1206

Dear Ms. Jarvis:

Enclosed for filing in the above-referenced docket are the *Testimony and Exhibits of Forest Bradley-Wright*, which are being filed on behalf of the North Carolina Justice Center, North Carolina Housing Coalition, and Southern Alliance for Clean Energy. Pursuant to Commission Rule R1-28(e), we are also submitting fifteen (15) paper copies of the testimony and accompanying exhibits via Federal Express, for delivery on August 20, 2019.

Please let me know if you have any questions about this filing.

Sincerely,

/s/ Lauren Fry
Legal Administrative Assistant

Enclosures

cc: Parties of Record

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION
DOCKET NO. E-2, SUB 1206

In the Matter of:) **TESTIMONY OF FOREST**
Application of Duke Energy Progress,) **BRADLEY-WRIGHT**
LLC pursuant to G.S. 62-133.9 and) **ON BEHALF OF NORTH**
Commission Rule R8-69 for Approval) **CAROLINA JUSTICE CENTER,**
of Demand-Side Management and) **NORTH CAROLINA HOUSING**
Energy Efficiency Cost Recovery) **COALITION, AND SOUTHERN**
Rider) **ALLIANCE FOR CLEAN ENERGY**

EXHIBITS

FBW-1	Forest Bradley-Wright Resume
FBW-2	Arkansas Public Service Commission Standardized Annual Reporting Workbook

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I. INTRODUCTION

Q. PLEASE STATE YOUR NAME, POSITION AND BUSINESS ADDRESS.

A. My name is Forest Bradley-Wright. I am the Energy Efficiency Director for Southern Alliance for Clean Energy (“SACE”), and my business address is 3804 Middlebrook Pike, Knoxville, Tennessee.

Q. ON WHOSE BEHALF ARE YOU TESTIFYING IN THIS PROCEEDING?

A. I am testifying on behalf of the North Carolina Justice Center (“Justice Center”), North Carolina Housing Coalition (“Housing Coalition”), and SACE.

Q. PLEASE SUMMARIZE YOUR QUALIFICATIONS AND WORK EXPERIENCE.

A. I graduated from Tulane University in 2001 and in 2013 received my Master of Arts degree from Tulane in Latin America Studies with an emphasis on international development, sustainability, and natural resource planning.

My work experience in the energy sector began in 2001 at Shell International Exploration and Production Co., where I served as the Sustainable Development Team Facilitator.

From 2005 to 2018, I worked for the Alliance for Affordable Energy. As the Senior Policy Director, I represented the organization through formal intervenor filings and before regulators at both the Louisiana Public Service Commission and the New Orleans City Council on issues such as integrated resource planning,

1 energy-efficiency rulemaking and program design, rate cases, utility acquisition,
2 power plant certifications, net metering, and utility scale renewables. As a
3 consultant, I also prepared and filed intervenor comments on renewable energy
4 dockets before the Mississippi and Alabama Public Service Commissions. In
5 2014, I was a runoff candidate for the Louisiana Public Service Commission First
6 District seat.

7 Since 2018, I have been the Energy Efficiency Director for SACE. In this role, I
8 am responsible for leading dialogue with utilities and regulatory officials on
9 issues related to energy efficiency in resource planning, program design, budgets,
10 and cost recovery. This takes the form of formal testimony, comments,
11 presentations, and/or informal meetings in the states of Georgia, Florida, North
12 Carolina, South Carolina, Mississippi and in jurisdictions under the Tennessee
13 Valley Authority.

14 A copy of my resume is included as Exhibit SACE-FBW-1.

15 **Q: HAVE YOU BEEN AN EXPERT WITNESS ON ENERGY-**
16 **EFFICIENCY MATTERS BEFORE THE NORTH CAROLINA**
17 **UTILITIES COMMISSION?**

18 **A:** Yes, I filed expert witness testimony in 2019 with regard to the
19 Application of Duke Energy Carolinas, LLC (“DEC”) for Approval of Demand-
20 Side Management and Energy Efficiency Cost Recovery Rider in Docket No. E-7,
21 Sub 1192.

1 **Q: HAVE YOU BEEN AN EXPERT WITNESS ON ENERGY-**
2 **EFFICIENCY MATTERS BEFORE OTHER REGULATORY**
3 **COMMISSIONS?**

4 **A:** Yes, I have filed expert witness testimony in Georgia related to Georgia
5 Power Company's 2019 Demand Side Management application and in Florida
6 related to the Florida Energy Efficiency Conservation Act target setting
7 proceeding.

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II. TESTIMONY OVERVIEW

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide a high-level review of the performance of Duke Energy Progress' ("DEP" or "the Company") Demand-Side Management and Energy Efficiency ("DSM/EE") portfolio and to comment on ongoing work with the Duke Collaborative. I will discuss the following topics:

- DEP's performance in delivering energy-efficiency savings to its customers over the past year;
- the Company's energy-savings projections;
- activity at the Duke Collaborative and its role in supporting continued success of DEP's DSM/EE efforts;
- recommendations for specific program areas requiring Commission attention
- the benefits of adopting a standardized annual reporting template.

1 **Q. PLEASE SUMMARIZE YOUR OVERALL IMPRESSION OF**
2 **DEP’S DSM/EE PERFORMANCE.**

3 **A.** DEP has again fallen well short of the one percent annual savings target
4 agreed to in a settlement with SACE and other parties in the Duke-Progress
5 merger, and continues to lag substantially behind the savings achieved by its sister
6 company, DEC. Nevertheless, DEP still delivers significant energy and cost
7 savings to its customers and is the only other major utility in the Southeast to
8 achieve savings above the national average. However, there remains significant
9 room for improvement. DEP continues to rely too heavily on short-term,
10 behavioral programs, particularly My Home Energy Report, which accounted for
11 58% of all energy savings achieved from residential energy-efficiency programs
12 in 2018 (an increase from 53% in 2017). An enhanced focus on delivering longer-
13 lived savings would better help customers manage their energy bills. DEP appears
14 to recognize the importance of these issues and has been constructively engaged
15 in addressing portfolio-level opportunities and challenges with stakeholders
16 through ongoing work at the Collaborative.

17 **Q. ARE THERE SPECIFIC PROGRAM AREAS THAT MERIT**
18 **ADDITIONAL ATTENTION FROM DEP?**

19 **A.** Yes. The Justice Center, Housing Coalition, and SACE continue to stress
20 the importance of providing energy and bill savings for DEP’s low-income
21 customers. More efforts should be targeted at these customers, who have the
22 highest energy burdens (the highest percentage of income spent on residential
23 energy bills), and consequently, the most need for cost-saving energy-efficiency
24 programs.

1 **Q. WHAT ACTIONS DO YOU RECOMMEND DEP AND THE**
2 **COMMISSION TAKE BASED ON YOUR OBSERVATIONS?**

3 **A.** I offer the following recommendations:

- 4 • DEP and the Commission should continue to prioritize reaching the 1%
5 annual savings target through a variety of strategies, including refinement
6 of its portfolio of programs with the goal of pursuing higher-level, longer-
7 lived savings and increased overall cost effectiveness. Discussion on
8 possible future targets is ongoing in Commission’s Dockets E-2, SUB 931
9 and E-7, SUB 1032 and should be additionally informed by filings in this and
10 previous DEP DSM/EE Recovery Rider dockets.
- 11 • The Company should continue its efforts to increase participation in and
12 effectiveness of programs that benefit its low-income customers.
13 Specifically, I encourage consideration of deploying an Income Qualified
14 Weatherization program in DEP that is comparable to the one currently
15 available to customers in DEC’s service territory.
- 16 • I encourage DEP and the Commission to consider specifically including
17 annual and cumulative savings achievements as a leading component of
18 the Company’s rider filing going forward, rather than requiring intervenor
19 data requests to obtain this information.

20 The Justice Center, Housing Coalition, and SACE appreciate the increased strides
21 made over the last year related to these matters and look forward to continued
22 engagement on these questions at the Collaborative.

1 still be a priority for DEP going forward. I encourage the Commission to hold the
2 Company accountable for doing so.

3 **Q. DID DEP MEET ITS OWN ENERGY-SAVINGS PROJECTIONS**
4 **IN 2018?**

5 **A.** DEP exceeded projected energy savings of 325 GWh for 2018⁴ by
6 approximately 10%. However, DEP failed to set their projections at a high
7 enough level for reaching the 1% of prior-year retail sales agreed to in the Merger
8 Settlement. Even though actual savings came in above projections, the Company
9 still fell far short of achieving its target.

10 **Q. DOES DEP PROJECT THAT IT WILL SUSTAIN THESE**
11 **SAVINGS LEVELS IN THE FUTURE?**

12 **A.** No. DEP projects a decline in efficiency saving of more than 25.4 GWh in
13 2020, with a corresponding drop in the percent of annual sales down to 0.72%.⁵ If
14 these projections are realized, the corresponding 7.1% drop in GWh savings
15 would indicate the need for increased attention by DEP and the Collaborative on
16 ramping up efforts to achieve savings from the Company's program offerings,
17 particularly from programs that provide deeper, longer-lasting savings.

18 **Q. WAS THE COMPANY'S EE PORTFOLIO COST-EFFECTIVE IN**
19 **2018?**

20 **A.** Yes. DEP's DSM/EE portfolio continues to be very cost-effective with
21 benefits of the programs significantly exceeding costs, thereby demonstrating that
22 DEP's customers are realizing real value from the Company's programs. As

⁴ DEP Application for Approval of DSM and EE Cost Recovery Rider, NCUC Docket E-2, Sub 1145 (June 2017), Evans Ex. 1, p. 7.

⁵ DEP response to SACE *et al* Data Request 1-3.

1 indicated by the Utility Cost Test (“UCT”) score, the net benefits ratio grew
2 considerably, going to 3.43 the previous year to 3.69 in 2018. However, as a
3 matter of overall financial impact, this improvement in UCT was not enough to
4 overcome the loss of kWh, and total net present value (NPV) of avoided cost
5 declined by \$35,473,204 over the same period.^{6 7} While UCT scores have been
6 on an inclining trend for the past three years, TRC scores had been declining in
7 each of the past two years, before rebounding to 2.86 in 2018.⁸ The TRC for all
8 residential programs of 3.46 exceeded the Company’s average.

9 One exception was the Home Energy Improvement program, which had a TRC of
10 only 0.6, but a UCT score of 1.0. For several reasons, the cost-effectiveness of
11 this program has been an important subject of discussion both at the Collaborative
12 and in previous DSM/EE recovery rider testimony. First and foremost, it is one of
13 the most important programs for achieving deeper and longer lasting energy
14 savings. Second, the methodology for calculating TRC currently used in North
15 Carolina counts all costs, but is incomplete in accounting for benefits – an
16 analytic asymmetry that warrants additional attention at the Collaborative. In
17 light of these considerations, Duke, the Justice Center, SACE, and a number of
18 stakeholders at the Collaborative have discussed the possibility of shifting
19 towards use of the UCT for determining program cost effectiveness. This
20 recommendation was included in recently filed comments by SACE, Sierra Club,

⁶ DEP Evans Exhibit 1, page 5

⁷ DEP response to SACE *et al* Data Request 1-2

⁸ *Id.*

1 and Natural Resources Defense Council in the ongoing DSM/EE rider mechanism
2 review for DEC and DEP (in NCUC dockets E-2, Sub 931 and E-7, Sub 1032).

3 **Q. HOW DID RESIDENTIAL AND NON-RESIDENTIAL SAVINGS**
4 **RELATE TO TOTAL SAVINGS IN 2018?**

5 **A.** Having again fallen short of the 1% savings target, the declines in both
6 residential and non-residential savings from 2017 to 2018 is disappointing.

7 The 8% decline in non-residential savings from 2017 to 2018 was far less
8 dramatic than the 30% experienced by DEC over the same period. But unlike its
9 sister company, DEP did not make up any ground with additional residential
10 savings, which instead also declined by 4%. Ongoing declines in non-residential
11 savings, largely as a result of non-residential opt outs, have been a consistent
12 issue raised by SACE and the NC Justice Center in previous filings.

13 The drop in residential savings was driven by declines in the Energy Efficient
14 Lighting and Save Energy and Water Kit programs. These reductions were
15 partially offset by increases in savings from My Home Energy Report. For non-
16 residential programs, the overall decline is hard to interpret due to large variations
17 in savings observed across essentially all non-residential programs from 2017 to
18 2018.⁹

19 The potential impact of impending changes in federal residential lighting
20 standards on DEP's savings is cause for future concern. I recommend a focus on
21 increasing deeper and longer lived measures to achieve a more balanced and

⁹ DEP response to SACE *et al* Data Request 1-6

1 robust portfolio of programs going forward, which has been a focus of concern for
2 the Justice Center and SACE in recent years.

3 **Q. WHAT EFFECT DO NON-RESIDENTIAL OPT OUTS HAVE ON**
4 **PERCENTAGE OF ENERGY SAVINGS?**

5 **A.** In 2018, 55% of the non-residential load opted out of DEP's energy
6 efficiency rider.¹⁰

7 Because commercial and industrial efficiency savings can be among the most
8 economic, greater savings among these customers would likely translate into even
9 higher utility system cost reductions, benefitting all of the Company's ratepayers.

10 Adjusted to exclude non-residential opt outs, DEP's savings as a percentage of
11 sales in 2018 was 1.19%, compared to 0.79% overall, suggesting that were it not
12 for the large number of opt outs, Duke could reach and exceed the 1% savings
13 target.¹¹ Though DEP has not yet provided specific analysis for comparison, it is
14 at least possible that they could have reached the cumulative target were it not for
15 the large number of non-residential opt outs.

16 **Q. HOW DID DEP'S LOW INCOME EFFICIENCY SAVINGS**
17 **COMPARE TO PREVIOUS YEARS?**

18 **A.** Savings from the DEP Neighborhood Energy Saver program increased
19 slightly in 2018 from the previous year. The Company also requested
20 Commission approval for a low income Pay-for-Performance pilot program, but it

¹⁰ Miller Exhibit 6, line 5

¹¹ Again, it is notable that DEP has the second highest savings as a percentage of sales in the Southeast, but the region as a whole lags far behind the national average and most other regions.

1 did not start until 2019 and the scale is currently very small. Unlike DEC, DEP
2 does not offer an Income Qualified Weatherization program. I believe this
3 represents a significant missed opportunity to deliver both additional total
4 residential savings and higher savings per customer than result from participation
5 in the NES program. The subject is discussed later in this testimony, along with a
6 recommendation to deploy an Income-Qualified Weatherization program for DEP
7 customers.

8 DEP has indicated that increasing savings for low-income customers is a priority
9 and I strongly encourage them to continue pursuing this objective. I am currently
10 supporting this effort alongside a robust group of interested advocates through our
11 work at the Collaborative, and offer a variety of suggestions below. Important
12 progress has already been made over the past several months and I look forward
13 to building on this crucial work in the Collaborative.

14 **Q. WHAT ARE SOME OF THE ISSUES ASSOCIATED WITH**
15 **DELIVERING EFFICIENCY PROGRAMS TO LOW INCOME**
16 **CUSTOMERS?**

17 **A.** In DEP's 2018 DSM/EE Rider Docket (Docket E-2, Sub 1174), Chris
18 Neme of the Energy Futures Group provided testimony that identified several
19 important issues related to serving low-income customers, including equity
20 concerns and the need for program designs that match their particular financial
21 and housing circumstances (for example, programs for renters, multifamily and
22 manufactured homes). His testimony noted that the Company's investment in
23 low-income programs as a percentage of total efficiency budgets lagged behind

1 peer utilities and was insufficient to meet the needs of low-income customers,
2 who also contribute to the DSM/EE Rider. He also noted that improving low-
3 income customers' ability to pay provides utility system benefits to all customers.
4 His recommendation was for Duke to engage the Collaborative in working to
5 expand and enhance the deployment of low income efficiency programs. While
6 such discussion has begun in earnest at the Collaborative, the issues identified in
7 Mr. Neme's testimony persist. To achieve better results for low-income
8 ratepayers, there is considerable work ahead.

9 **Q. WHAT IS THE RELATIONSHIP BETWEEN THE DEP DSM/EE**
10 **RECOVERY RIDER PROCEEDING AND THE COLLABORATIVE**
11 **WORKING GROUP?**

12 **A.** Stakeholder engagement with Duke on energy efficiency-related matters
13 in North Carolina predates the merger with Progress Energy, going back more
14 than a decade when it helped shape the 2007 Duke Energy Carolinas Energy
15 Efficiency Plan and the original Save-a-Watt efficiency programs. In a settlement
16 agreement concluding the 2009 proceeding for Duke Energy Carolinas' Save-a-
17 Watt Approach, the Commission-approved settlement established a regional
18 stakeholder advisory group that has since been formalized as the Collaborative.
19 Key components of the agreed upon guidance for the Collaborative include:

- 20 • Collaborating on new program ideas, reviewing modifications to existing
21 programs, and ensuring an accurate public understanding of the programs
22 and funding

- 1 • Reviewing the EM&V process, giving periodic status reports on program
2 progress, helping to set EM&V priorities
- 3 • Providing recommendations for the submission of applications to revise or
4 extend programs and rate structures
- 5 • Guiding efforts to expand cost-effective programs for low-income
6 customers¹²

7 The Commission-approved settlement called for regular meetings involving a
8 broad spectrum of regional stakeholders representing balanced interests, as well
9 as national energy efficiency advocates and experts. The settlement included the
10 following:

11 *“The advisory group will determine its own rules of operation, including the*
12 *process for setting the agendas and activities of the group, consistent with these*
13 *terms. Members agree to participate in the advisory group in good faith*
14 *consistent with mutually-agreed upon rules of participation.”¹³*

15 Over the years, the Commission has routinely referred work to the Collaborative
16 on a range of matters arising in recovery rider dockets, and required Duke to
17 report back to the Commission on progress made on these issues.

18 **Q. WHAT ARE SOME OF THE HISTORIC STRENGTHS OF THE**
19 **COLLABARATIVE?**

¹² DOCKET NO. E-7, Sub 831 - Application of Duke Energy Carolinas, LLC For Approval of Save-a-Watt Approach, Energy Efficiency Rider and Portfolio of Energy Efficiency Programs, Agreement and Joint Stipulation of Settlement, p. 26.

¹³ *Id.*

1 A. Program progress and evaluation, measurement, and verification reporting
2 have been strengths of the Collaborative experience in recent years, with Duke
3 providing substantial documentation and involving a wide range of relevant
4 efficiency program staff in the Collaborative meetings. Furthermore, the
5 Collaborative has provided a valuable context for establishing productive working
6 relationships between relevant Duke employees and participating stakeholders,
7 while increasing communication and the regular flow of information. Complex
8 energy-efficiency issues—particularly at the programmatic or measure level—are
9 difficult to effectively address in formal dockets before the Commission. The
10 Collaborative provides an important alternative venue to problem solve issues on
11 an ongoing basis.

12 **Q. PLEASE IDENTIFY SOME OF THE HISTORIC CHALLENGES**
13 **OR DEFICIENCIES OF THE COLLABORATIVE PRIOR TO**
14 **SEPTEMBER 2018?**

15 A. In the past, the Collaborative’s efforts to develop new program ideas,
16 modify existing programs, or otherwise impact the overall efficiency savings of
17 Duke’s portfolio of programs were not as robust as envisioned in the
18 Commission-approved settlement that launched the stakeholder group. However,
19 as I discuss below, there are some encouraging signs that the Collaborative is
20 improving.

21 Specifically, in recent years the Collaborative has explored opportunities to
22 increase portfolio benefits through:

- 23 • On-Bill Financing

- 1 • Combined Heat and Power
- 2 • Development of a Technical Resource Manual
- 3 • Strategies for addressing Commercial and Industrial Opt-outs¹⁴
- 4 • Multi-family efficiency programs
- 5 • Maximization of cross-program marketing
- 6 • Non-energy benefits
- 7 • Manufactured housing

8 Despite the dedication of extensive time, energy, and resources by Duke and
9 participating stakeholders, the above-listed efforts have yet to be implemented by
10 Duke Energy and thus, have not resulted in any increased savings. While no
11 single factor likely explains this failure to achieve more substantive
12 accomplishments, it is important to consider the various factors that could lead to
13 greater success in the future, which are discussed in further detail below.

14 Fortunately, over the past year, DEP and Collaborative stakeholders have given
15 renewed attention to fulfilling the Commission-approved guidance on how
16 meetings should be run, as well as continued investment in building relationships
17 between participants and embracing the “good faith” responsibility originally
18 envisioned a decade ago.

¹⁴ Including through strategic energy management

1 **Q. WOULD ADDRESSING THESE ISSUES ENHANCE THE VALUE**
2 **OF THE COLLABORATIVE AND THE OVERALL SUCCESS OF DEP**
3 **EFFICIENCY EFFORTS?**

4 **A.** The Collaborative is useful because detailed efficiency program
5 implementation issues are best addressed through joint problem solving and
6 collaboration. Moreover, many efficiency issues do not fit effectively into formal
7 docketed proceedings, where procedural constraints may limit opportunities for
8 sufficiently detailed and open discussion. My recommendation to continue using
9 the Collaborative for these types of issues is consistent with Mr. Neme's
10 testimony on the subject from last year, recommendations that I adopt.¹⁵

11 Therefore, despite disappointment with the low level of impact resulting from the
12 Collaborative's work in recent years, many stakeholders remain committed to its
13 original purpose and strive to understand and overcome past limitations. As noted
14 below, I see encouraging signs that Duke also recognizes the importance of these
15 issues and is willing to try new approaches going forward.

16 At the end of the year, it would be appropriate to evaluate whether better results
17 have been achieved, or whether additional operational changes or Commission
18 direction is warranted.

19 **Q. WHAT STEPS HAVE BEEN TAKEN TOWARD**
20 **COLLABORATIVE IMPROVEMENT IN THE PAST YEAR?**

¹⁵ Testimony of Chris Neme on behalf of Justice Center, Housing Coalition, Natural Resources Defense Council, and SACE, NCUC Docket E-2, Sub 1174 (2018 Application of DEP for Approval of DSM/EE Rider).

1 A. Beginning in September 2018, I have worked closely with Duke to
2 implement a number of positive changes that improve the likelihood of current
3 and future work at the Collaborative showing concrete results than in the past.

4 These include:

- 5 • More frequent in-person meetings to achieve greater momentum on
6 Collaborative priorities
- 7 • Shared agenda-setting to identify pertinent topics, achieve greater
8 stakeholder buy-in, and increase discussion among participants
- 9 • Higher levels of stakeholder involvement
- 10 • Shifting focus away from formulaic reporting by the Company towards a
11 greater emphasis on problem-solving opportunities and the development
12 of program enhancement recommendations
- 13 • Group decision-making on setting the Collaborative's annual work
14 priorities
- 15 • More communication between DEP and collaborative parties between
16 regular Collaborative meetings
- 17 • More research and project work conducted by DEP and Collaborative
18 parties between collaborative meetings
- 19 • New expectations around tangible project deliverables

- 1 • Active focus by all parties on two specific priorities selected by the group:
2 addressing portfolio-level opportunities and challenges to reach and
3 exceed the 1% annual savings target and increasing energy- and bill-
4 savings for low income customers

5 It is encouraging that even with more frequently scheduled meetings, Stakeholder
6 participation in the Collaborative has been robust, and Duke has enlisted
7 participation by a large number of their program management staff. In addition to
8 SACE and NC Justice Center, active participants in the Collaborative currently
9 include¹⁶:

- 10 • Advanced Energy
- 11 • American Council for an Energy-Efficient Economy
- 12 • Carolina Utility Customers Association
- 13 • Clean Energy Technology Center at North Carolina State University
- 14 • Energy Futures Group
- 15 • Environmental Defense Fund
- 16 • Green Built Alliance
- 17 • National Housing Trust
- 18 • Nicholas Institute at Duke University
- 19 • North Carolina Building Performance Association

¹⁶ DEP Application, Testimony of Evans, pp. 17-18.

- 1 • North Carolina Department of Natural Resources
- 2 • North Carolina Justice Center
- 3 • North Carolina Public Staff
- 4 • North Carolina Sustainable Energy Association
- 5 • South Carolina Coastal Conservation League
- 6 • South Carolina Energy Office
- 7 • South Carolina Office of Regulatory Staff
- 8 • Southern Alliance for Clean Energy

9 To expand our own capacity, SACE enlisted the support of Jim Grevatt, of
10 Energy Futures Group, to aid the work of the efficiency advocates at the
11 Collaborative. He brings valuable additional technical expertise and personal
12 perspective from efficiency working groups in other jurisdictions. Duke's
13 willingness to accommodate the changes above, and stakeholders' commitment of
14 greater time and resources to the Collaborative, are encouraging. If it were not for
15 this renewed investment in the work of the Collaborative from DEP and other
16 stakeholders, I would have little reason to anticipate better outcomes.

17 **Q. ARE THERE STILL CHALLENGES TO ACHIEVING HIGHER**
18 **LEVELS OF EFFECTIVENESS AT THE COLLABORATIVE?**

19 **A.** Yes. While numerous process steps have already been taken to improve
20 the Collaborative, there are still challenges that warrant attention.

1 As noted in the 2009 settlement agreement, making recommendations on potential
2 modifications to existing programs and making suggestions concerning the
3 addition of new programs are among the main purposes of the Collaborative. In
4 order to do so, the Collaborative needs to receive pertinent information on a
5 timely basis. Otherwise, stakeholders in the Collaborative do not have the ability
6 to review DEP's plans, engage in fruitful discussions, work through potential
7 issues, and develop practical recommendations.

8 We continue to experience problems receiving timely information from the
9 Company. Since last September, the Company has proposed modifications to
10 several existing programs and proposed one new program. While the Company
11 appears to be genuinely interested in engaging the Collaborative on these program
12 modifications and new program proposals, it has not provided information in a
13 way that allows for the most meaningful stakeholder engagement. Duke has
14 typically provided its plans for program modifications or new programs after the
15 Company's ideas are all but fully formed, after the point when stakeholder input
16 would be of most value.

17 This timing contributes to a diminished role for the Collaborative when it comes
18 to program modification and development. Ultimately, this approach represents a
19 significant lost opportunity and one of the principal challenges to effectiveness at
20 the Collaborative. Nevertheless, I believe that the Company is engaging in good
21 faith to move the Collaborative in the right direction and receive substantive
22 contributions from stakeholders.

1 DEP has been making meaningful strides in improving the flow of information
2 refining their methods of engagement. Most recently, the Company signaled a
3 desire to discuss the topic of expanding the midstream channel for delivery of
4 efficiency measures, work that has only just begun.

5 A summary of recent experience with program changes is illustrative:

- 6 • **Pay for Performance** – This new program concept was also introduced at
7 the September 2018 Collaborative meeting, but Duke opted to seek
8 approval from the Commission prior to engaging Collaborative
9 participants in its development. Expanding efficiency program offerings
10 for low-income customers is one of the highest priorities among
11 stakeholders, making this a natural topic for work at the Collaborative.
12 Instead, the only available opportunity for input was via filing a letter with
13 the Commission. SACE joined North Carolina Sustainable Energy
14 Association in doing so, and provided a number of recommendations that I
15 believe could improve the impact and likelihood of success for the
16 program in its pilot phase and beyond. DEP did not accept or incorporate
17 any of those recommendations.
- 18 • **Neighborhood Energy Saver** – At the November 2018 Collaborative
19 meeting, Duke announced its intention to modify the Neighborhood
20 Energy Saver program and provided background information the
21 following month. When the subject was discussed as an agenda item at
22 the January 2019 Collaborative meeting, DEP indicated that there would
23 be an opportunity for input from interested stakeholders and offered to

1 host a call for more in-depth discussion. That call was the first time Duke
2 described details of its proposed modifications and, when asked, indicated
3 that the deadline for any feedback was the following day. Unfortunately,
4 this was both impractical from a timing perspective and lacked the kind of
5 structure needed for deliberative review, problem solving, and
6 development and recommendations that is needed for meaningful
7 collaboration to occur. In this case, it should be noted that SACE
8 supported the specific changes Duke proposed. However, lack of
9 participation in the process represented a significant missed opportunity
10 for further programmatic improvements.

11 These examples are meant to illustrate opportunities for more improvement at the
12 Collaborative, not to contest specific changes made to these programs. However, I
13 believe that improvements in how Duke engages the Collaborative during the
14 development of new programs and modification of existing programs is extremely
15 important for fulfillment of the intended purpose of stakeholder engagement.

16 There currently is no common understanding, protocol, or timeline for
17 Collaborative review and development of recommendations for new programs or
18 modifications to existing programs. Uncertainty around specific deliverables,
19 timelines, and pathways for implementation at the Collaborative contributes to a
20 lack of clarity on what it will take for the work of the Collaborative to have an
21 effect on Duke's decisionmaking. Without this kind of clarity, it will be difficult
22 for the Collaborative to see its work translate into substantive outcomes.

1 **IV. DEP'S COMPLIANCE WITH THE COMMISSION'S ORDER IN**
2 **DOCKET E-2, SUB 1174**

3 **Q. PLEASE DESCRIBE THE COMMISSION'S DIRECTIVE WITH**
4 **REGARD TO SACE'S RECOMMENDATIONS IN DOCKET E-2, SUB**
5 **1174.**

6 **A.** The Order approving Rider 10 included a directive that DEP address the
7 following issues raised in Mr. Neme's testimony¹⁷ and report back to the
8 Commission as part of the Company's 2019 Rider filing:

- 9 • Improving participation in Residential Smart Saver
- 10 • Promoting whole house retrofits
- 11 • Building on recent success of the midstream channel in the non-residential
12 Smart Saver prescriptive rebate program
- 13 • Assessing potential to reduce opt-outs
- 14 • Considering implementation of a Technical Resource Manual
- 15 • Improving effectiveness of the Collaborative
- 16 • Addressing Persistence and savings from MyHER
- 17 • The impact of upcoming changes in lighting standards
- 18 • DEC/DEP collaborative combination and more frequent meetings

19 **Q. WHAT IS THE STATUS OF COLLABORATIVE RELATED**
20 **ISSUES INCLUDED IN THE COMMISSION'S 2018 ORDER IN THIS**
21 **DOCKET?**

¹⁷ Testimony of Chris Neme, *supra* note 15.

1 A. In general, I agree with DEP's characterization of discussion at the
2 Collaborative on these topics. However, I feel it important to note that attention
3 and discussion on many of these topics were of a very limited nature.

4 One reason is that the time between the Commission's order on November 29,
5 2018 and DEP's filing in this docket is short, only about six months. Even with
6 more frequent meetings, this was not enough time to take an in-depth look at most
7 of these issues.

8 Another reason many issues were not addressed at much depth was that the group
9 decided to first dedicate time toward improving the way the Collaborative
10 operates, rather than repeat the experience of past efforts, which yielded little
11 substantive results.

12 Finally, the group decided to focus the majority of its efforts on two overarching
13 priorities for 2019, described further below, rather than attempt to tackle a much
14 longer list of topics that would have exceeded our time or bandwidth.

15 Nevertheless, I would note that many of the issues that were identified in the
16 Commission's Rider 10 Order, even those that did not receive detailed attention,
17 remain topics of interest that will likely warrant work at the Collaborative in the
18 future.

19 One of the important lessons drawn from previous experience with the
20 Collaborative is that some important issues cannot be resolved in one year or less.
21 Therefore, decisions to prioritize certain issues in the short term will result in
22 other issues being deferred until a later date.

1 **Q. WHAT ARE THE 2019 PRIORITIES OF THE COLLABORATIVE?**

2 **A.** This January, the Collaborative selected two key work priorities for 2019:

- 3 • Evaluation of portfolio level opportunities and challenges
- 4 • Expansion of energy-efficiency savings for low-income customers

5 Additionally, the group will continue to participate in reviews of existing program
6 progress and discuss opportunities for program modifications and additions.

7 **Q. WHAT APPROACHES TO EVALUATING THE PORTFOLIO**
8 **LEVEL OPPORTUNITIES AND CHALLENGES IS THE**
9 **COLLABORATIVE CONSIDERING?**

10 **A.** This topic has generated considerable interest among participants and the
11 focus of work is still largely under development. There is, however, a recognition
12 that the topic overlaps with the Commission's request for comment on the current
13 incentive mechanism, rate impact, and program performance targets, as well as
14 issues related to cost-effectiveness.

15 **Q. WHAT APPROACHES TO EXPANDING LOW INCOME**
16 **EFFICIENCY IS THE COLLABORATIVE CONSIDERING?**

17 **A.** As reported in previous testimony and filings from the Justice Center and
18 SACE, both North and South Carolina have high levels of poverty and
19 correspondingly high customer energy burdens. Energy-efficiency programs for
20 low-income households are one critical tool for addressing this problem. While
21 Duke is to be commended for its low-income energy efficiency achievements to
22 date, more is needed going forward.

1 The Collaborative has identified low-income energy efficiency as one of its top
2 priorities for 2019. Discussion has centered on increasing total budgets and
3 savings impact for low-income customers and refining approaches for designing
4 and implementing programs to do so.

5 Several broad strategies have been discussed that would increase the impact of
6 efficiency programs for the benefit of low income customers:

7 **Expand budget allocations for programs targeted to low-income customers -**

8 To be effective, increased investments must be matched with well-designed
9 programs, effective delivery channels, and evaluation approaches that properly
10 inform and support periodic refinements to overcome challenges to serving this
11 segment of customers. Without higher levels of investment, however, there is
12 little hope of achieving substantially more than has been accomplished in the past.

13 **Refine and expand existing program offerings** - Over the past year, Duke has
14 shown a willingness to modify current program offerings to deliver more impact
15 to low income customers, such as proposing additional measures in the
16 Neighborhood Energy Saver (NES) program.¹⁸ Duke has initiated some
17 discussions with the Collaborative on possible modifications to its programs, and
18 there are considerable additional opportunities to build on such dialogue going
19 forward.

¹⁸ While this program does not have income qualification eligibility requirements, the neighborhood selection process involves evaluation of United States Census data to target communities with high levels of poverty.

1 **Deploy new programs** - Delivering effective low-income efficiency programs is
2 a priority for utilities, Commissions, and stakeholders across the country. There
3 are numerous examples of programs aimed at meeting the unique needs of low-
4 income customers that could be adapted and implemented by DEP, such as
5 programs for manufactured homes, multifamily housing, tariffed on-bill
6 financing, and adding measure that achieve deeper levels of savings per
7 household, all of which have been the subject of previous testimony and filings
8 submitted by the Justice Center, Housing Coalition, and SACE.

9 One such opportunity is to build on the success of DEC's Income-Qualified
10 Weatherization program in North Carolina by offering the program to DEP's low-
11 income customers as well.

12 Additionally, in 2019, the Collaborative explored opportunities to align the
13 financing timeline for both new construction and existing multifamily properties
14 seeking an allocation of Low Income Housing Tax Credits from the North
15 Carolina Housing Finance Agency with utility program offerings. Incorporating
16 utility incentives at the time of financing is an opportunity to secure deeper
17 whole-building energy savings. Properties going through a financing event have
18 access to private and/or public capital that utility programs can leverage to cover
19 the cost of energy-efficiency upgrades that may otherwise be out of reach for
20 owners and/or too costly for utility programs to incentivize. Utilities across the
21 country have partnered with housing finance agencies to develop and implement
22 energy-efficiency programs that meet the unique needs of the affordable housing
23 sector and deliver energy savings. Stakeholders at the Collaborative are

1 committed to supporting Duke in developing an approach tailored to North
2 Carolina and South Carolina.

3 **Prioritize increasing low income customer impact through non-income**
4 **qualified programs** - While the NES program does not require income
5 qualification for participation, the program is designed to reach low-income
6 customers, which is part of how program performance is tracked. At the January
7 Collaborative meeting, Duke presented a chart showing low-income impact
8 tracking across its portfolio of residential programs. I strongly support this
9 attention and look forward to working with Duke to use data such as this to
10 inform strategies for capturing more impact for low-income customers in all
11 residential programs going forward. That said, standard efficiency programs are
12 not a replacement for dedicated low-income programs that are tailored to meet the
13 specific needs of low-income households and aim to achieve targeted
14 participation levels specifically for these customers.

15 Stakeholders at the Collaborative remain committed to supporting DEP in each of
16 the above areas, while giving attention to achieving levels of cost effectiveness
17 that are appropriate for serving low income customers.

18 **Q. WHAT ARE YOUR EXPECTATIONS REGARDING THE**
19 **COLLABORATIVE IN 2019?**

20 I believe there is an opportunity to strengthen and expand programs, increase
21 portfolio savings, and enhance the value of program and portfolio performance
22 reporting. This in turn could also narrow the range of issues handled through
23 contested dockets before the Commission. The lack of tangible results from the

1 work of the Collaborative in past years has been frustrating. Despite this, the NC
2 Justice Center, the Housing Coalition, SACE, and many others have increased the
3 commitment of our time and resources in the hopes of achieving more tangible
4 results going forward. If successful, I believe more energy and capacity savings
5 will result.

6 If, despite this additional effort, more substantive and tangible outcomes are not
7 achieved, there may be a need for deeper structural changes to the Collaborative
8 that would involve more direction and oversight by the Commission.

9 **Q. WHAT LESSONS CAN BE LEARNED FROM STAKEHOLDER**
10 **GROUPS IN OTHER JURISDICTIONS?**

11 **A.** Some of the different structural approaches used by energy efficiency
12 stakeholder working groups in other jurisdictions are instructive, a theme that Mr.
13 Neme explored in testimony last year. For additional context, I add the following
14 example from Arkansas.

15 The Arkansas Public Service Commission has a significant role in setting the
16 agenda for its stakeholder group, known as Parties Working Collaboratively
17 (“PWC”) and sets specific deliverables and deadlines that the group is required to
18 meet. In recent years, the Arkansas Commission has referred numerous important
19 issues to the group with expectations that they will work together to jointly
20 develop recommendations for consideration and final decision making by the
21 Commission. In recent years, these have included:

- 22
- Setting 3-year utility energy savings targets

- 1 • Coordination of gas and electric efficiency programs
- 2 • Development of low income programs
- 3 • Standard annual reporting protocols, among others.

4 The work is supported by an independent facilitator selected through a
5 Commission administered RFP. Recommendations are submitted jointly by the
6 PWC following a Commission prescribed deadline. The approach is aimed at
7 building consensus between parties.

8 By comparison, the North Carolina Utilities Commission has historically referred
9 issues raised in testimony to the Collaborative, but except for DEP submitting
10 testimony indicating that the topics have been discussed, there is no defined
11 mechanism for this information to be reported back to the Commission.

12 **Q. WHAT SPECIFIC REQUESTS DO YOU HAVE OF THE**
13 **COMMISSION REGARDING THE COLLABORATIVE?**

14 **A.** Our primary ask is that the Commission observe the work of the
15 Collaborative to determine whether significant additional progress has been made,
16 focusing on tangible impacts resulting from the Collaborative's work.

17 Specifically, the current work tasks of the Collaborative involve:

- 18 • Portfolio-level assessment of opportunities and challenges
- 19 • Expansion of energy-efficiency and bill savings for low-income customers
- 20 • Modification and additions to DEP efficiency programs reflecting direct
21 input from the work of the Collaborative

1 In 2020, I recommend that the Commission seek direct comment from
2 Collaborative participants on whether the Collaborative has sufficiently corrected
3 its course or whether additional changes are needed that would warrant
4 Commission action.

5 As part of the portfolio-level assessment of opportunities and challenges, I
6 suggest the Collaborative address the projected decline of annual savings down to
7 0.72% in annual savings DEP forecasts for 2020, strive to finally reach the 1%
8 energy savings target, then maintain and grow those savings going forward.

9 I recommend that Duke and the Collaborative begin regularly tracking the impact
10 of all efficiency programs on low income customers, including both those that
11 involve income qualifying criteria as well as standard efficiency programs that are
12 available to all customers. By doing so, we may better understand the
13 relationship between these programs and incorporate useful insights into future
14 strategies for increasing savings for the customers most in need of assistance
15 lowering their electric bills.

16 **Q. ARE THERE ANY OTHER ACTIONS THAT YOU RECOMMEND**
17 **WITH REGARD TO THIS DOCKET?**

18 **A.** There is an important and timely opportunity to replicate the success of
19 DEC's Income-Qualified Weatherization program in North Carolina by
20 expanding its deployment to low income customers in DEP's North Carolina
21 territory. Unlike Neighborhood Energy Savers, this program exclusively serves
22 low-income households and includes larger energy saving measures capable of
23 delivering deeper levels of savings – enough to materially impact energy

1 affordability and overall financial wellbeing for participating families. Moreover,
2 recent innovations in delivery of the DEC Income-Qualified Weatherization
3 program could result in even greater impact for DEP. Specifically, the ability to
4 leverage Helping Home Funds has enabled DEC to serve many more homes per
5 year than were being reached previously when the program was matched only
6 with federal funds for low-income efficiency. Moreover, by correlating low-
7 income and high-energy intensity data, customers who were slipping through the
8 cracks of the federal programs are now being served. And funding availability
9 has been expanded for customers in need of both weatherization and HVAC
10 replacement. All of these program features would provide value for low-income
11 customers in DEP territory, with this big advantage: While DEC has been
12 leveraging the Helping Home Fund to fill the financial gap for health, safety, and
13 incidental improvements, those funds are almost entirely depleted. By contrast,
14 DEP has recently increased their Helping Home Funds with \$2.5 million dollars,
15 which would enable the Company to reach large numbers of households with the
16 Income-Qualified Weatherization program for many years. I suggest that the
17 Commission, Duke, and stakeholders explore this opportunity through both the
18 Collaborative and by initiating a formal Commission proceeding.

19 Finally, I suggest initiating a standard annual reporting protocol akin to the one
20 used in Arkansas and incorporating the tools developed by the Lawrence Berkeley
21 National Laboratory.

22 **Q. WHAT ARE THE BENEFITS OF IMPLEMENTING A STANDARD**
23 **ANNUAL REPORTING PROTOCOL?**

1 A. Establishing standard annual reporting protocols for Duke's DSM/EE
2 Recovery Rider filings would provide numerous benefits for intervenors, Staff,
3 the Commission, and the public. While the majority of information needed for
4 such reporting is already prepared by Duke to support its annual filings, much of
5 it can only be acquired through data requests, which means only parties to the
6 proceeding have access to them.

7 Moreover, the information provided by Duke is not organized in a way that is
8 convenient for review and analysis, nor presented in a way that would allow the
9 Commission or the public to efficiently identify topline trends and takeaways.
10 For instance, the Merger Settlement set annual and cumulative savings targets, but
11 DEP does not report on progress towards meeting the target in its Application
12 filings.

13 In short, the current filings and discovery responses are highly voluminous¹⁹ and,
14 while the information is important, it is unnecessarily difficult to access. As a
15 result, the annual information reported by Duke is difficult to use for oversight
16 and regulatory decision-making. It is also of very limited value for public
17 understanding on the economic value of Duke's efficiency investments. Exhibit
18 FBW-2 is the Excel workbook filed by Entergy Arkansas. This document is
19 provided alongside the narrative of its annual efficiency performance filing. Key
20 features of the reports are:

¹⁹ SACE / NCJC recognize the substantial effort committed by DEP staff in production of this information and appreciate the Company's willingness to provide genuinely substantive answers in response to discovery requests.

- 1 • Planned Versus Actuals - Side-by-side comparisons of projected and
- 2 actual program budgets, demand saving, and energy savings
- 3 • Budget breakdowns - indicating expenditures on incentives / direct install
- 4 costs compared to marketing, administration, and EM&V costs
- 5 • Cost / Benefit - TRC and Program Administrator Cost test results (also
- 6 known as the Utility Cost Test), TRC Net Present Value
- 7 • Levelized cost of energy saved
- 8 • Annual % of savings compared to baseline year
- 9 • Historic comparisons on budgets and energy savings.

10 The Lawrence Berkeley National Laboratory has also developed a set of standard
11 annual reporting tools that can be adopted by individual jurisdictions, which can
12 be accessed here: [https://emp.lbl.gov/publications/energy-efficiency-reporting-](https://emp.lbl.gov/publications/energy-efficiency-reporting-tool)
13 [tool](https://emp.lbl.gov/publications/energy-efficiency-reporting-tool).

14 V. CONCLUSION

15 Q. DOES THAT CONCLUDE YOUR TESTIMONY?

16 A. Yes.

CERTIFICATE OF SERVICE

I certify that the persons on the service list have been served with the foregoing Testimony of Forest Bradley-Wright on Behalf of the North Carolina Justice Center, North Carolina Housing Coalition, and Southern Alliance for Clean Energy either by electronic mail.

This the 19th day of August, 2019.

/s/ David L. Neal

PROFESSIONAL EXPERIENCE

Energy Efficiency Director: Southern Alliance for Clean Energy, Knoxville, TN **April 2018 – Present**

- Regulatory filings, testimony, strategy, and stakeholder management on integrated resource planning, energy efficiency program design, cost recovery and related matters throughout the Southeast.

Senior Policy Director: Alliance for Affordable Energy, New Orleans, LA **February 2017 – April 2018**

- Regulatory filings, strategy, and stakeholder management on integrated resource planning and energy efficiency rulemaking, power plant proposals and related matters at the city and state level.

Consultant: Utility Regulation and Energy Policy **December 2014 – February 2017**

- Technical and strategic guidance on clean energy policy and utility regulation for Opower, Gulf States Renewable Energy Industries Association, the Alliance, and Mississippi PSC candidate Brent Bailey.

Candidate: Louisiana Public Service Commission **July - December 2014**

- Won the open primary and secured 49.15% of the vote in the general election against a highly favored, well-funded incumbent.
- Raised nearly \$500,000 in campaign contributions while publicly pledging not to accept money from monopoly companies regulated by the PSC.
- Campaign focused on ethical leadership, reducing bills, energy efficiency, the rights of customers to generate solar energy, and government transparency.

Utility Policy Director: Alliance for Affordable Energy, New Orleans, LA **October 2005 – June 2014**

- Directed successful policy efforts for energy efficiency, renewable energy, and integrated resource planning at the Louisiana PSC and New Orleans City Council, spurring every major Louisiana utility investment in clean energy over the past decade.
- Reviewed and filed intervenor comments, met with commissioners, utilities, and technical consultants, assembled and managed relationships with a broad coalition of stakeholders, worked with media, and served as the organization's public face.
- Launched and managed energy efficiency and solar workforce training programs, public education campaigns, and direct service projects to improve energy performance in over 100 homes following the city's rebuild post-Katrina.

Owner and Director: EcoPark LLC (d.b.a. The Building Block), New Orleans, LA **February 2008 – Present**

Created an innovative co-location business center to serve as a catalyst for moving green commerce and social entrepreneurship to the mainstream.

- Developed the business concept and plan, brought initial funding to the project, hired staff, established brand identity, and secured tenants.

Sustainable Development Team Facilitator: Shell International, New Orleans, LA **May 2001 – June 2004**

- Worked to facilitate a paradigm shift within corporate management's core business practices toward social and environmental issue management.
- Engaged a diverse team of professionals across the company to identify energy and resource inefficiencies and methods to reduce carbon emissions from venting and flaring in oil and natural gas exploration and production.
- Analyzed ways to incorporate sustainability accounting into each stage of new venture development for major drilling projects.

EDUCATION

Tulane University

- **Master of Arts in Latin American Studies, 2011**
Concentration in environmental law, business, and international development
- **Bachelor of Arts with Honors in Latin American Studies, 2001**

EXPERT WITNESS TESTIMONY

Forest Bradley-Wright, Direct Testimony on Behalf of Southern Alliance for Clean Energy and League of United Latin American Citizens. Docket Nos. 20190015-EG, 20190016-EG, 20190018-EG, 20190019-EG, 20190020-EG, 20190021-EG- Commission Review of Numeric Conservation Goals for Florida Power & Light, Gulf Power Company, Duke Energy Florida, Orlando Utilities Commission, Jacksonville Electric Authority, Tampa Electric Company. June 10th, 2019.

Forest Bradley-Wright, Direct Testimony on Behalf of Southern Alliance for Clean Energy and North Carolina Justice Center, Application of Duke Energy Carolinas, 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 1192. May 20th, 2019.

Forest Bradley-Wright, Direct Testimony on Behalf of Southern Alliance for Clean Energy, Georgia Power Company's Application for the Certification, Decertification, and Amended Demand Side Management Plan, Docket No. 42311. April 25th, 2019.

OTHER REGULATORY FILINGS

Forest Bradley-Wright, Comments on Behalf of Southern Alliance for Clean Energy, Order Establishing Docket to Investigate the Development and Implementation of an Integrated Resource Planning Rule – MPSC Docket 2018-AD-64. February 15th, 2019

Forest Bradley-Wright and Daniel Brookeshire, Comments on Behalf of North Carolina Sustainable Energy Association and Southern Alliance for Clean Energy, Duke Energy Progress, LLC's Proposed Non-Profit Low-Income Weatherization Pay for Performance Pilot, Docket No. E-2, Sub 1187. November 9th, 2018

Forest Bradley-Wright, Comments on Behalf of Southern Alliance for Clean Energy, Order Establishing Docket to Investigate the Development and Implementation of an Integrated Resource Planning Rule – MPSC Docket 2018-AD-64. August 1st, 2018

Forest Bradley-Wright and Logan Burke, Comments on Behalf of Alliance for Affordable Energy, Rulemaking to Study the Possible Development of Financial Incentives for the Promotion of Energy Efficiency by Jurisdictional Electric and Natural Gas Utilities, Louisiana Public Service Commission Docket R-31106. June 20th, 2017

Forest Bradley-Wright and Logan Burke, Comments on Behalf of Alliance for Affordable Energy, Rulemaking to Establish Integrated Resource Planning Components and Reporting Requirements for Entergy New Orleans, Docket No. UD-17-01. May 25th, 2017

Forest Bradley-Wright and Logan Burke, Comments on Behalf of Alliance for Affordable Energy, Rulemaking to Study the Possible Development of Financial Incentives for the Promotion of Energy Efficiency by Jurisdictional Electric and Natural Gas Utilities, Louisiana Public Service Commission Docket R-31106. March 7th, 2017

Forest Bradley-Wright and Jeff Cantin, Post Hearing Brief on Behalf of Gulf States Renewable Energy Industries Association, Petition for a Certificate of Convenience and Necessity for Alabama Power, Docket No. 32382. August 19th, 2015

PUBLICATIONS

Forest Bradley-Wright and Heather Pohnan, Energy Efficiency in the Southeast 2018 Annual Report, Southern Alliance for Clean Energy. December 12th, 2018



Arkansas Public Service Commission

Standardized Annual Reporting Workbook v4.0 August 2017

General		Energy Efficiency Portfolio Data and Information	
Instructions Glossary	2017 EE Portfolio Information 2017 Program Year Evaluation Historical Information	Entergy Arkansas, Inc.	

Annual Report Tables				Reports		Data			
EE Portfolio Summary	EE Portfolio Expenditures by Program	EE Portfolio Expenditure Summary by Cost Type	Company Statistics	Program Budget, Energy Savings & Participants	Portfolio Results Detail by Program	Portfolio Results Detail by Sector	Best Practices	Program Year Data	Next Annual Report Load Data

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Table 1

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2017 Portfolio Summary

Net Energy Savings		Costs			Cost-Effectiveness			Goal Achievement		
Demand MW	Energy MWh	Actual Expenditures	LCFC	Performance Incentives	TRC Net Benefits (NPV)	TRC Ratio	PAC Ratio	Commission Established Target % of Baseline	Actual Savings Achieved % of Baseline	% of Target Achieved (%)
104	264,992	\$ 57,141,646	\$ -	\$ 4,962,781	\$ 111,287,286	2.52	2.79	0.90%	1.49%	165%

Work Book is Incomplete
- Click Here For Details-

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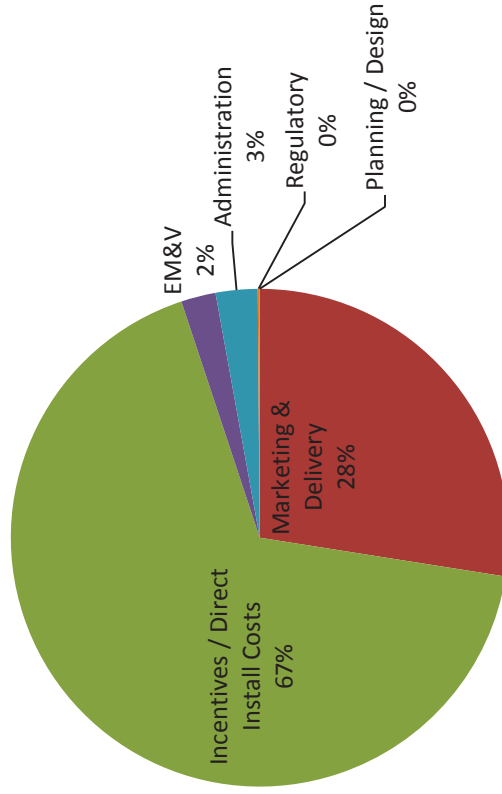
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EE Portfolio Expenditures by Program

Program Name	Target Sector	Program Type	2017		% of Budget
			Budget (\$)	Actual (\$)	
Bring Own T-stat Pilot	Residential	Demand Response	130,676	68,912	53%
Efficient Cooling Solutions	Residential	Measure/Technology Focus	2,608,580	2,209,519	85%
Energy Solutions for Manufactured Homes	Residential	Market Specific/Hard to Reach	1,066,973	1,013,729	95%
Energy Solutions for Multi-Family	Residential	Market Specific/Hard to Reach	1,087,309	964,280	89%
Home Energy Solutions	Residential	Whole Home	11,798,620	11,736,577	99%
Lighting & Appliances	Residential	Consumer Product Rebate	4,708,434	4,521,562	96%
Residential Benchmarking Program	Residential	Behavior/Education	557,798	468,626	84%
Residential Direct Load Control	Residential	Demand Response	3,044,555	2,064,063	68%
Small Business	Small Business	Market Specific/Hard to Reach	4,184,886	4,269,781	102%
C&I Solutions Program	Commercial & Industrial	Custom	23,644,196	21,195,549	90%
City Smart	Commercial & Industrial	Market Specific/Hard to Reach	3,664,805	3,638,872	99%
Commercial Midstream	Commercial & Industrial	Consumer Product Rebate	1,228,253	1,116,444	91%
Agricultural Energy Solutions	Agriculture	Prescriptive/Standard Offer	1,018,569	765,606	75%
Agricultural Irrigation Load Control	Agriculture	Demand Response	3,092,606	2,837,698	92%
Energy Efficiency Arkansas Regulatory	Residential	Other	198,507	197,986	100%
	-	-	-	72,440	-
		Total	62,034,767	57,141,646	92%

EE Portfolio Expenditure Summary by Cost Type

Cost Type	2017 Total Expenditures		
	% of Total	Budget (\$)	Actual (\$)
Planning / Design	0%	170,174	9,672
Marketing & Delivery	27%	16,806,585	15,701,465
Incentives / Direct Install Costs	65%	40,172,674	38,517,076
EM&V	3%	2,073,388	1,285,628
Administration	5%	2,811,946	1,555,365
Regulatory	0%	-	72,440
	100%	62,034,767	57,141,646
			100%



Main Menu

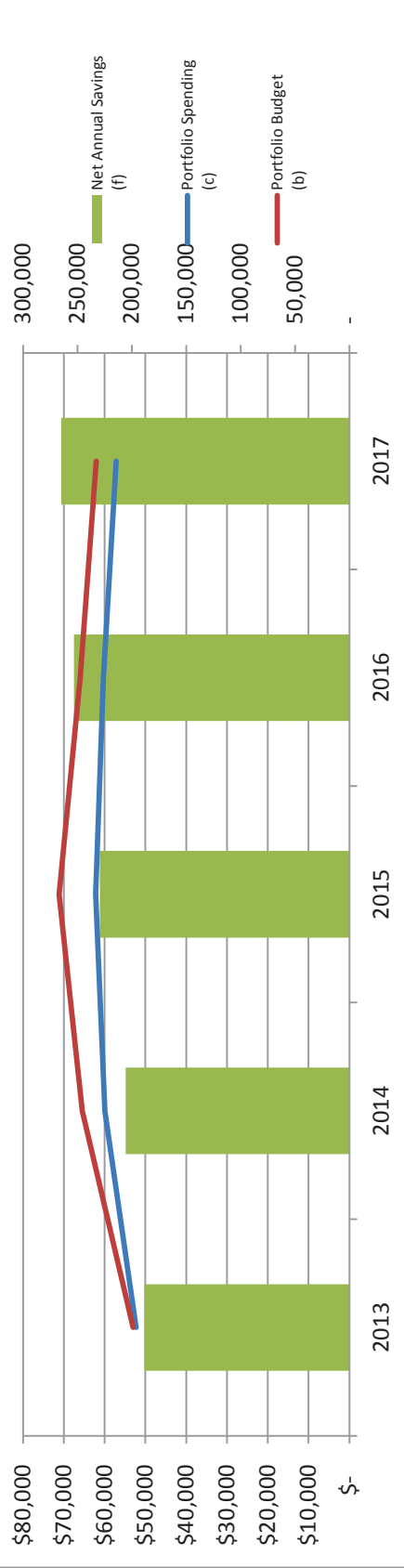
Table 4

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Company Statistics

Program Year	Revenue and Expenditures				Energy				
	Budget		Actual		Total Annual Energy Sales (d) (MWh)	Plan		Evaluated	
	Portfolio Budget (b) (\$000's)	% of Revenue (=b/a)	Portfolio Spending (c) (\$000's)	% of Revenue (=c/a)		Net Annual Savings (e) (MWh)	% of Energy Sales (=e/d)		Net Annual Savings (f) (MWh)
2013	\$ 1,678,683	3.2%	\$ 52,285	3.1%	20,859,130	165,469	0.79%	188,468	0.90%
2014	\$ 1,642,896	4.0%	\$ 59,914	3.6%	21,001,325	197,564	0.94%	205,507	0.98%
2015	\$ 1,820,805	3.9%	\$ 62,190	3.4%	21,160,228	186,555	0.88%	229,268	1.08%
2016	\$ 1,733,733	3.8%	\$ 60,270	3.5%	20,639,386	194,165	0.94%	253,201	1.23%
2017	\$ 1,739,545	3.6%	\$ 57,142	3.3%	20,888,455	238,130	1.14%	264,992	1.27%

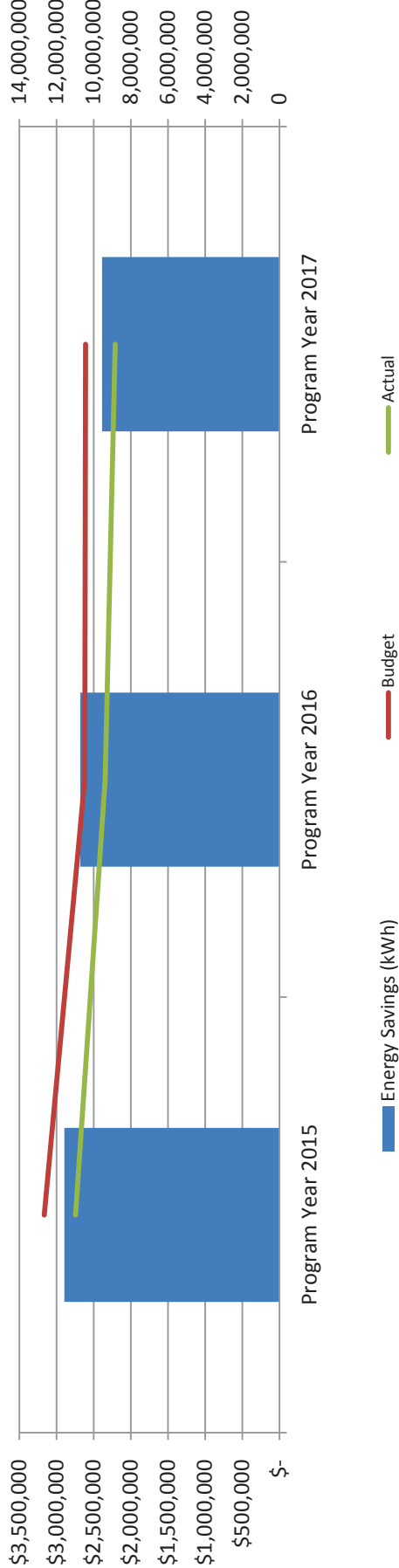


Efficient Cooling Solutions

Select program from dropdown menu to view details.

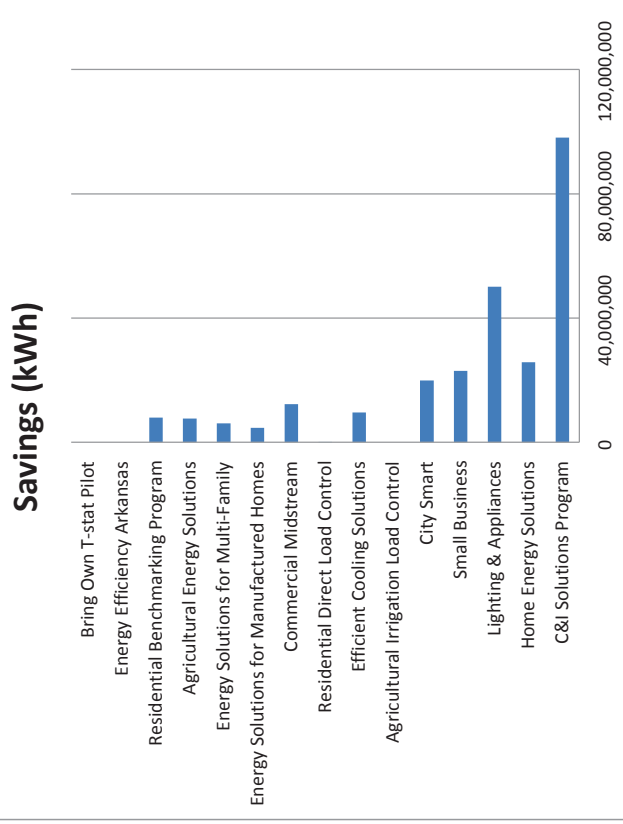
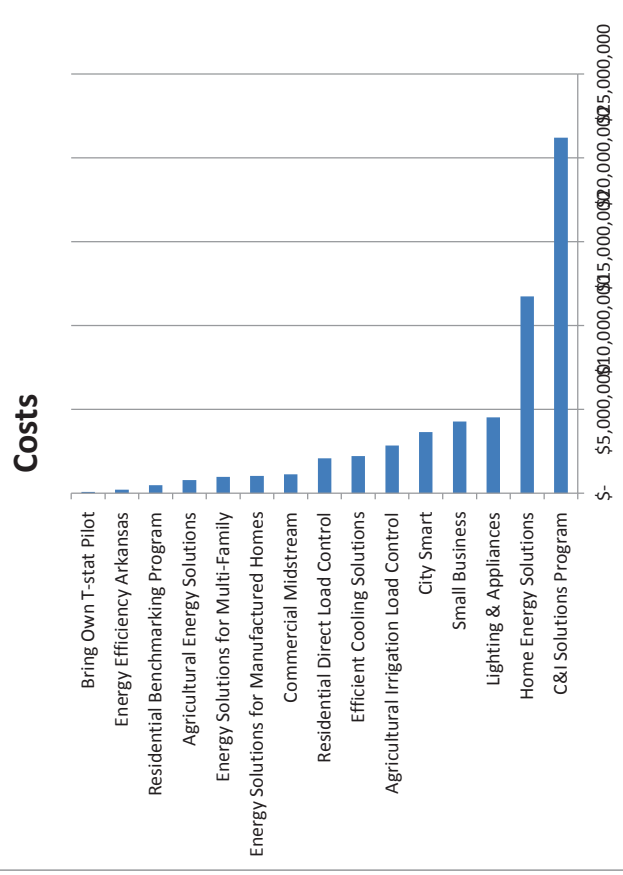
Efficient Cooling Solutions

Program	Expenditures		Energy Savings (kWh)			Demand Savings (kW)			Participants		
	Budget	Actual	Plan	Evaluated	%	Plan	Evaluated	%	Plan	Actual	%
Program Year 2015	\$ 3,165,940	\$ 2,745,610	9,100,000	11,572,605	127%	4,105	4,789	117%	10,061	7,478	74%
Program Year 2016	\$ 2,620,953	\$ 2,344,395	16,141,000	10,724,845	66%	8,600	3,348	39%	10,061	4,324	43%
Program Year 2017	\$ 2,608,580	\$ 2,209,519	17,446,000	9,548,026	55%	10,228	2,908	28%	5,999	2,548	42%



2017 Portfolio Results Detail

Program Name	Target Sector	Costs			Savings (kWh)			Participants			TRC Ratio
		Budget	Actual	%	Plan	Evaluated	%	Plan	Actual	%	
Bring Own T-stat Pilot	Residential	\$ 130,676	\$ 68,912	53%	0	0	-	750	55	7%	0.00
Efficient Cooling Solutions	Residential	\$ 2,608,580	\$ 2,209,519	85%	17,446,000	9,548,026	55%	5,999	2,548	42%	1.96
Energy Solutions for Manufactured Homes	Residential	\$ 1,066,973	\$ 1,013,729	95%	1,996,069	4,690,095	236%	900	641	71%	8.56
Energy Solutions for Multi-Family	Residential	\$ 1,087,309	\$ 964,280	89%	3,011,306	6,111,955	203%	4,000	1,898	47%	9.82
Home Energy Solutions	Residential	\$ 11,798,620	\$ 11,736,577	99%	22,638,739	25,757,464	114%	7,222	7,733	107%	2.82
Lighting & Appliances	Residential	\$ 4,708,434	\$ 4,521,562	96%	29,927,961	50,040,143	167%	2,261,358	291,634	13%	7.13
Residential Benchmarking Program	Residential	\$ 557,798	\$ 468,626	84%	9,118,435	7,901,231	87%	208,264	336,309	161%	0.87
Residential Direct Load Control	Residential	\$ 3,044,555	\$ 2,064,063	68%	0	1,734	-	22,184	23,075	104%	3.16
Small Business	Small Business	\$ 4,184,886	\$ 4,269,781	102%	13,247,024	23,005,941	174%	1,100	744	68%	1.92
C&I Solutions Program	Commercial & Industrial	\$ 23,644,196	\$ 21,195,549	90%	109,920,001	98,073,142	89%	850	764	90%	1.76
City Smart	Commercial & Industrial	\$ 3,664,805	\$ 3,638,872	99%	12,806,791	19,940,702	156%	85	367	432%	1.54
Commercial Midstream	Commercial & Industrial	\$ 1,228,253	\$ 1,116,444	91%	11,466,158	12,312,436	107%	849	912	107%	3.77
Agricultural Energy Solutions	Agriculture	\$ 1,018,569	\$ 765,606	75%	6,551,697	7,609,051	116%	118	51	43%	4.42
Agricultural Irrigation Load Control	Agriculture	\$ 3,092,606	\$ 2,837,698	92%	0	0	-	1,271	1,035	81%	1.43
Energy Efficiency Arkansas	Residential	\$ 198,507	\$ 197,986	100%	0	0	-	0	0	-	0.00
Regulatory		\$ -	\$ 72,440								
TOTAL:		\$ 62,034,767	\$ 57,141,646	92%	238,130,182	264,991,920	111%	2,514,950	667,766	27%	2.52



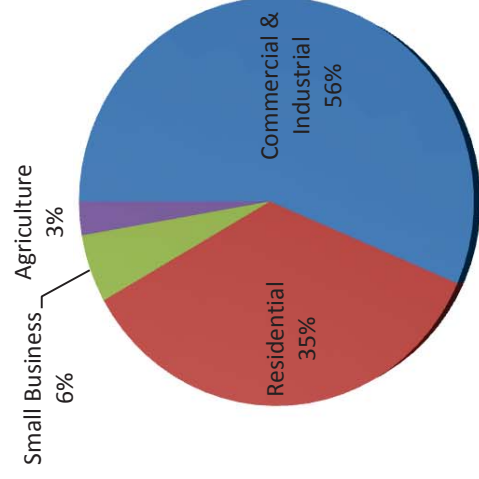
2017 Portfolio Results Detail by Target Sector

Target Sector	Costs			Savings (kWh)			Participants			TRC Ratio
	Budget	Actual	%	Plan	Evaluated	%	Plan	Actual	%	
Residential	\$ 25,201,452	\$ 23,245,255	92%	84,138,511	104,050,648	124%	2,510,677	663,893	26%	4.03
Small Business	\$ 4,184,886	\$ 4,269,781	102%	13,247,024	23,005,941	174%	1,100	744	68%	1.92
Commercial & Industrial	\$ 28,537,253	\$ 25,950,865	91%	134,192,950	130,326,280	97%	1,784	2,043	115%	1.84
Municipalities/Schools	\$ -	\$ -	-	0	0	-	0	0	-	n/a
Agriculture	\$ 4,111,175	\$ 3,603,305	88%	6,551,697	7,609,051	116%	1,389	1,086	78%	1.96
Other	\$ -	\$ -	-	0	0	-	0	0	-	n/a
Res/Small Business	\$ -	\$ -	-	0	0	-	0	0	-	n/a
Res/C&I	\$ -	\$ -	-	0	0	-	0	0	-	n/a
Small Business/C&I	\$ -	\$ -	-	0	0	-	0	0	-	n/a
All Classes	\$ -	\$ -	-	0	0	-	0	0	-	n/a
TOTAL	\$ 62,034,767	\$ 57,069,206	92%	238,130,182	264,991,920	111%	2,514,950	667,766	27%	2.52

Savings (kWh)

Select the Data to be Displayed in Chart

Savings (kWh)



Level of Adoption of NAPEE "Best Practic

Item #	1a.		1b.	1c.	EE Total Portfolio Expenditures (A) (\$000's)	2a.	
Program Year	FTEs	FTEs / \$1M of EE Spending	Training Sessions Attended	Training Sessions Man-Hours		Planning & Design (B) (\$000's)	As % of Total Portfolio Expenditures (%=B/A)
2017	70	1.2	175	12,704	\$ 57,142	\$ 10	0.0%

Index to Docket No. 10-010-U Issue #8 Items

Item #	Description
1	Program Staffing and Training Requirements
2	DSM Program Design & Implementation
3	DSM Program Evaluation
4	Estimation of DSM Resource Potential
5	Shareholder Incentives for Program Performance
6	Resource Planning with Energy Efficiency
7	Utility Best Practices Guidance for Providing Business Customers with Energy Use Cost Dat
8	Customer Incentives for Energy Efficiency Through Electric and Natural Gas Rate Design

<< Back

es" (Issue #8)

2b.		3a.	
Implementa- tion (C) (C=A-B-D) (\$000's)	As % of Total Portfolio Expenditures (%=C/A)	EM&V (D) (\$000's)	As % of Total Portfolio Expenditures (%=D/A)
\$ 55,846	97.7%	\$ 1,286	2.2%

	Where Available?
	Above
	Above
	Above
	Narrative Section 1.0
	Incentives Section
	Narrative Section 1.0
a	Narrative Section 3.3
	Narrative Section 3.3

Main Menu

Program Name	Target Sector	Program Type	Delivery Channel
Lighting & Appliances	Residential	Consumer Product Rebate	Retail Outlets
Home Energy Solutions	Residential	Whole Home	Implementing Contractor
Efficient Cooling Solutions	Residential	Measure/Technology Focus	Implementing Contractor
Energy Solutions for Multi-Family	Residential	Market Specific/Hard to Reach	Direct Install
Energy Solutions for Manufactured Homes	Residential	Market Specific/Hard to Reach	Direct Install
Residential Benchmarking Program	Residential	Behavior/Education	Implementing Contractor
Residential Direct Load Control	Residential	Demand Response	Implementing Contractor
Energy Efficiency Arkansas	Residential	Other	Statewide Administrator
Commercial Midstream	Commercial & Industrial	Consumer Product Rebate	Retail Outlets
C&I Solutions Program	Commercial & Industrial	Custom	Trade Ally
Small Business	Small Business	Market Specific/Hard to Reach	Trade Ally
City Smart	Commercial & Industrial	Market Specific/Hard to Reach	Trade Ally
Agricultural Energy Solutions	Agriculture	Prescriptive/Standard Offer	Implementing Contractor
Agricultural Irrigation Load Control	Agriculture	Demand Response	Utility Outreach (email/direct mail)
Bring Own T-stat Pilot	Residential	Demand Response	Trade Ally
Empty			
Empty			
Empty			
Empty			
Empty			

2017 Portfolio Data

Program Name	Expenses		Energy Savings (kWh)		Demand Savings (kW)		Participants	
	Budget	Actual	Plan	Evaluated	Plan	Evaluated	Plan	Actual
Lighting & Appliances	\$ 4,708,434	\$ 4,521,562	29,927,961	50,040,143	6,533	9,908	2,261,358	291,634
Home Energy Solutions	\$ 11,798,620	\$ 11,736,577	22,638,739	25,757,464	10,440	10,122	7,222	7,733
Efficient Cooling Solutions	\$ 2,608,580	\$ 2,209,519	17,446,000	9,548,026	10,228	2,908	5,999	2,548
Energy Solutions for Multi-Family	\$ 1,087,309	\$ 964,280	3,011,306	6,111,955	1,716	2,526	4,000	1,898
Energy Solutions for Manufactured Homes	\$ 1,066,973	\$ 1,013,729	1,996,069	4,690,095	393	1,083	900	641
Residential Benchmarking Program	\$ 557,798	\$ 468,626	9,118,435	7,901,231	6,718	5,351	208,264	336,309
Residential Direct Load Control	\$ 3,044,555	\$ 2,064,063	0	1,734	35,000	37,612	22,184	23,075
Energy Efficiency Arkansas	\$ 198,507	\$ 197,986	0	0	0	0	0	0
Commercial Midstream	\$ 1,228,253	\$ 1,116,444	11,466,158	12,312,436	1,654	3,452	849	912
C&I Solutions Program	\$ 23,644,196	\$ 21,195,549	109,920,001	98,073,142	17,364	12,174	850	764
Small Business	\$ 4,184,886	\$ 4,269,781	13,247,024	23,005,941	2,841	2,817	1,100	744
City Smart	\$ 3,664,805	\$ 3,638,872	12,806,791	19,940,702	2,598	3,203	85	367
Agricultural Energy Solutions	\$ 1,018,569	\$ 765,606	6,551,697	7,609,051	937	1,040	118	51
Agricultural Irrigation Load Control	\$ 3,092,606	\$ 2,837,698	0	0	31,000	12,216	1,271	1,035
Bring Own T-stat Pilot	\$ 130,676	\$ 68,912	0	0	580	0	750	55
Empty	\$ -	\$ -	0	0	0	0	0	0
Empty	\$ -	\$ -	0	0	0	0	0	0
Empty	\$ -	\$ -	0	0	0	0	0	0
Empty	\$ -	\$ -	0	0	0	0	0	0
Empty	\$ -	\$ -	0	0	0	0	0	0
Empty	\$ -	\$ -	0	0	0	0	0	0

Program Name	TRC					
	Lifetime Savings (MWh)	Total Cost	Total Benefits	Net Benefits	Ratio	Levelized cost
Lighting & Appliances	718,052	\$ 5,767	\$ 41,147	\$ 35,379	7.1	\$ 0.0122
Home Energy Solutions	421,459	\$ 11,737	\$ 33,081	\$ 21,344	2.8	\$ 0.0444
Efficient Cooling Solutions	88,580	\$ 2,217	\$ 4,346	\$ 2,128	2.0	\$ 0.0333
Energy Solutions for Multi-Family	74,760	\$ 400	\$ 3,930	\$ 3,530	9.8	\$ 0.0077
Energy Solutions for Manufactured Homes	74,732	\$ 393	\$ 3,364	\$ 2,971	8.6	\$ 0.0083
Residential Benchmarking Program	7,901	\$ 324	\$ 282	\$ (42)	0.9	\$ 0.0435
Residential Direct Load Control	2	\$ 1,368	\$ 4,324	\$ 2,957	3.2	\$ 835.9977
Energy Efficiency Arkansas	0	\$ 198	\$ -	\$ (198)	0.0	n/a
Commercial Midstream	184,687	\$ 2,401	\$ 9,045	\$ 6,644	3.8	\$ 0.0201
C&I Solutions Program	1,351,232	\$ 30,898	\$ 54,386	\$ 23,487	1.8	\$ 0.0342
Small Business	338,417	\$ 6,765	\$ 13,010	\$ 6,245	1.9	\$ 0.0306
City Smart	278,562	\$ 7,149	\$ 10,992	\$ 3,843	1.5	\$ 0.0386
Agricultural Energy Solutions	76,872	\$ 577	\$ 2,551	\$ 1,975	4.4	\$ 0.0102
Agricultural Irrigation Load Control	0	\$ 2,688	\$ 3,853	\$ 1,166	1.4	n/a
Bring Own T-stat Pilot	0	\$ 69	\$ -	\$ (69)	0.0	n/a
Empty	0	\$ -	\$ -	\$ -	n/a	n/a
Empty	0	\$ -	\$ -	\$ -	n/a	n/a
Empty	0	\$ -	\$ -	\$ -	n/a	n/a
Empty	0	\$ -	\$ -	\$ -	n/a	n/a
Empty	0	\$ -	\$ -	\$ -	n/a	n/a
Empty	0	\$ -	\$ -	\$ -	n/a	n/a

Program Name	Target Sector	Annual Budget & Actual Cost				Annual Plan
		2016		2017		
		Budget	Actual	Budget	Actual	
1. Lighting & Appliances	Residential	\$ 5,100,501	\$ 4,723,152	\$ 4,708,434	\$ 4,521,562	31,321,000
2. Home Energy Solutions	Residential	\$ 15,097,877	\$ 14,042,588	\$ 11,798,620	\$ 11,736,577	25,612,000
3. Efficient Cooling Solutions	Residential	\$ 2,620,953	\$ 2,344,395	\$ 2,608,580	\$ 2,209,519	16,141,000
4. Energy Solutions for Multi-Family	Residential	\$ 701,785	\$ 688,946	\$ 1,087,309	\$ 964,280	2,905,000
5. Energy Solutions for Manufactured Homes	Residential	\$ 634,547	\$ 810,080	\$ 1,066,973	\$ 1,013,729	1,671,000
6. Residential Benchmarking Program	Residential	\$ 686,161	\$ 598,198	\$ 557,798	\$ 468,626	6,328,000
7. Residential Direct Load Control	Residential	\$ 4,332,150	\$ 4,052,965	\$ 3,044,555	\$ 2,064,063	0
8. Energy Efficiency Arkansas	Residential	\$ 326,589	\$ 230,642	\$ 198,507	\$ 197,986	0
9. Commercial Midstream	Commercial & Industrial	\$ 1,153,018	\$ 1,033,206	\$ 1,228,253	\$ 1,116,444	13,101,000
10. C&I Solutions Program	Commercial & Industrial	\$ 23,308,895	\$ 19,748,340	\$ 23,644,196	\$ 21,195,549	110,073,000
11. Small Business	Small Business	\$ 3,247,526	\$ 3,293,002	\$ 4,184,886	\$ 4,269,781	11,088,000
12. City Smart	Commercial & Industrial	\$ 4,265,759	\$ 4,215,474	\$ 3,664,805	\$ 3,638,872	12,787,000
13. Agricultural Energy Solutions	Agriculture	\$ 965,016	\$ 887,504	\$ 1,018,569	\$ 765,606	6,542,000
14. Agricultural Irrigation Load Control	Agriculture	\$ 3,522,940	\$ 3,586,750	\$ 3,092,606	\$ 2,837,698	0
15. Bring Own T-stat Pilot	Residential	\$ -	\$ -	\$ 130,676	\$ 68,912	0
16. Empty		\$ -	\$ -	\$ -	\$ -	0
17. Empty		\$ -	\$ -	\$ -	\$ -	0
18. Empty		\$ -	\$ -	\$ -	\$ -	0
19. Empty		\$ -	\$ -	\$ -	\$ -	0
20. Empty		\$ -	\$ -	\$ -	\$ -	0
Regulatory		\$ -	\$ 14,865	\$ -	\$ 72,440	0
Total Portfolio - Current Programs		\$ 65,963,717	\$ 60,270,107	\$ 62,034,767	\$ 57,141,646	237,569,000

Company Statistics	
Revenue and Sales	
Revenue	Sales (kWh)
2017	\$ 1,739,545,000
2016	\$ 1,733,733,000
2015	\$ 1,820,805,000
2014	\$ 1,642,896,000

Company Statistics	
Revenue and Sales	
Revenue	Sales (kWh)
2017	\$ 1,739,545,000
2016	\$ 1,733,733,000
2015	\$ 1,820,805,000
2014	\$ 1,642,896,000

Annual Net Energy Savings (kWh)

16	2017	
	Plan	Evaluated
53,871,110	29,927,961	50,040,143
24,842,378	22,638,739	25,757,464
10,724,845	17,446,000	9,548,026
2,794,597	3,011,306	6,111,955
1,620,786	1,996,069	4,690,095
8,142,462	9,118,435	7,901,231
52,172	0	1,734
0	0	0
10,411,844	11,466,158	12,312,436
91,431,787	109,920,001	98,073,142
17,197,779	13,247,024	23,005,941
25,040,969	12,806,791	19,940,702
7,159,184	6,551,697	7,609,051
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0
0	0	0

Annual Net Demand Savings (kW)

2016		2017	
Plan	Evaluated	Plan	Evaluated
3,600	8,160	6,533	9,908
9,000	8,535	10,440	10,122
8,600	3,348	10,228	2,908
700	865	1,716	2,526
600	192	393	1,083
4,500	5,863	6,718	5,351
27,300	28,099	35,000	37,612
0	0	0	0
2,500	1,886	1,654	3,452
15,100	11,123	17,364	12,174
1,700	2,024	2,841	2,817
2,100	4,410	2,598	3,203
900	965	937	1,040
14,900	17,027	31,000	12,216
0	0	580	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0
0	0	0	0

253,289,913 238,130,182 264,991,920

91,500

92,496

128,003

104,412

Uses	EE Portfolio Savings (kWh)	
	Budget	Actual
#####	238,130,182	264,991,920
#####	194,165	253,201
#####	186,555	229,268
#####	197,564	205,507