



Applied Economics Clinic

Economic and Policy Analysis of Energy, Environment and Equity

BEFORE THE COUNCIL FOR THE CITY OF NEW ORLEANS

**APPLICATION OF ENTERGY NEW)
ORLEANS, INC. FOR APPROVAL TO)
CONSTRUCT NEW ORLEANS POWER)
STATION AND REQUEST FOR)
COST RECOVERY AND TIMELY RELIEF)**

DOCKET NO. UD-16-02

PRE-FILED DIRECT TESTIMONY

OF

ELIZABETH A. STANTON

ON BEHALF OF

**ALLIANCE FOR AFFORDABLE ENERGY,
DEEP SOUTH FOR ENVIRONMENTAL JUSTICE, 350 LOUISIANA – NEW ORLEANS,
AND SIERRA CLUB**

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1. QUALIFICATIONS

Q1. Please state your name, position, and business address.

A. My name is Elizabeth A. Stanton, Ph.D. I am the Director and Senior Economist of the Applied Economics Clinic, 44 Teele Avenue, Somerville, Massachusetts 02144.

Q2. On whose behalf are you testifying?

A. I am testifying on behalf of Alliance for Affordable Energy, the Deep South Center for Environmental Justice, 350 Louisiana – New Orleans and Sierra Club.

Q3. What are the topics of your testimony?

A. My testimony focuses on (1) assessing the need for an additional New Orleans capacity resource on the basis of Entergy New Orleans' filings; (2) reviewing alternative means to address any assumed capacity deficit, including demand side management, renewable resources, transmission upgrades, and capacity purchases; and (3) discussing Entergy New Orleans' application to build new natural gas generating capacity in the context of the City of New Orleans' climate regulations.

Q4. Please summarize your professional and educational experience, and attach a current copy of your *curriculum vitae*.

A. I am the founder and Director of the Applied Economics Clinic, a non-profit consulting group housed at Tufts University's Global Development and Environment Institute. The Applied Economics Clinic provides expert testimony, analysis, modeling, policy briefs, and reports for



1 public interest groups on the topics of energy, environment, consumer protection, and equity. The
2 Clinic trains the next generation of expert technical witnesses and analysts by providing applied, on-
3 the-job training to graduate students in related fields and working proactively to support diversity
4 among both student workers and professional staff.

5 I am a researcher and analyst with more than 17 years of professional experience as a political and
6 environmental economist. I have authored more than 125 reports, policy studies, white papers,
7 journal articles, and book chapters on topics related to energy, the economy, and the environment.

8 In my previous position as a Principal Economist at Synapse Energy Economics, I led studies
9 examining environmental regulation, cost-benefit analyses, and the economics of energy efficiency
10 and renewable energy. I have submitted expert testimony and comments in Illinois, Vermont, New
11 Hampshire, Massachusetts, and several federal dockets. My recent work includes IRP and DSM
12 planning review, analysis and testimony of state climate laws as they relate to proposed capacity
13 additions, and other issues related to consumer and environmental protection in the electric and
14 natural gas sectors.

15 Prior to joining Synapse, I was a Senior Economist with the Stockholm Environment Institute's
16 (SEI) Climate Economics Group, where I was responsible for leading the organization's work on the
17 Consumption-Based Emissions Inventory (CBEI) model and on water issues and climate change in
18 the western United States. While at SEI, I led domestic and international studies commissioned by
19 the United Nations Development Programme, Friends of the Earth-U.K., and Environmental
20 Defense Fund, among others.

21 My articles have been published in Ecological Economics, Climatic Change, Environmental and



Resource Economics, Environmental Science & Technology, and other journals. I have also published books, including Climate Change and Global Equity (Anthem Press, 2014) and Climate Economics: The State of the Art (Routledge, 2013), which I co-wrote with Frank Ackerman. I am also coauthor of Environment for the People (Political Economy Research Institute, 2005, with James K. Boyce) and co-editor of Reclaiming Nature: Worldwide Strategies for Building Natural Assets (Anthem Press, 2007, with Boyce and Sunita Narain).

I earned my Ph.D. in economics at the University of Massachusetts-Amherst, and have taught economics at Tufts University, the University of Massachusetts-Amherst, and the College of New Rochelle, among others. My curriculum vitae is attached to this testimony as EAS Exhibit A.

2. BACKGROUND/OVERVIEW

Q5. What is your understanding of the Supplemental and Amending Application of Entergy New Orleans, Inc. (ENO) for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief (Docket No. UD-16-02)?

A. ENO has submitted an application to the City Council to build either a 226 MW combustion turbine (CT) or a 128 MW reciprocating engine (RICE) peaker.

In its revised application submitted July 6, 2017, ENO has:

- Updated its forecast of projected peak customer demand for the 20-year planning horizon
- Utilized the new peak customer demand forecast to conduct updated and expanded load flow modeling exercises



- Updated its peak customer demand projection with a reduction of “an average of 3.4% per year (average 40 MW per year) compared to the forecast used in the original Application”¹

ENO concludes that “the original unit proposed to the Council, a 226 MW combustion turbine (CT), still has significant benefits for customers and should be constructed. The Company also found, however, that the construction of a smaller unit would also create significant benefits and should also be considered by the Council.”²

Q6. What rationale does ENO offer in support of its request to construct a New Orleans Power Station (NOPS)?

A. In its application, ENO offers two main rationales explaining its need for the NOPS capacity resource: (1) that ENO has insufficient capacity following the retirement of Michoud 2 and 3; and (2) that ENO is at risk of being islanded from the rest of MISO under certain extreme conditions and therefore must either meet its own capacity needs locally or build new transmission.

First, ENO asserts that the deactivation of Michoud Units 2 and 3 “resulted in the loss of approximately 781 MW of local capacity and created a need.”³ ENO claims an “overall capacity need of approximately 100 MW for the first ten years of the planning horizon, which grows to 248

¹ Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.3

² Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.3

³ Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.3



1 MW in the second ten years of the planning horizon.”⁴ I dispute this claim below.

2 Second, ENO claims that New Orleans is “very sensitive to local reliability issues” due to its
3 geographical location “in the eastern half of the Down Stream Gypsy (DSG) and Amite South load
4 pockets.”⁵ In his testimony, Mr. Charles Long explained the issue further, noting that “a load pocket
5 generally refers to a region of high load concentration, which is dependent upon local generation
6 capability within its borders to reliably serve load due to a limit on the ability to import power into
7 the region,”⁶ which makes the New Orleans area “highly dependent on local generation to meet
8 customer demand.”⁷ ENO further claims that “if incremental generation is not added, and costly
9 transmission upgrades are not performed, the Company’s service territory will face the risk of
10 cascading (or uncontrolled) outages under certain scenarios that would affect most of the New
11 Orleans area.”⁸

12 ENO’s online factsheet on NOPS further articulates these claims: “Why do we need it? We need this
13 power plant because without it New Orleans is at risk of cascading electrical outages or blackouts
14 throughout the city. Having local peaking generation will provide grid stability for New Orleans and

⁴ Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.3-4

⁵ Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.11

⁶ Docket No. UD-16-02, “Supplemental and Amending Direct Testimony of Charles W. Long”, pp.3, lines 14-16

⁷ Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.11

⁸ Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.12.



the region, support economic expansion and support the addition of more renewables.”⁹

The testimony of Witness Peter Lanzalotta addresses ENO’s claims regarding its transmission obligations and liabilities. My testimony refutes the claimed correlation between a capacity deficit and electrical outages or blackouts.

Q7. Summarize main points in testimony

A. The main points of my testimony are as follows:

1. **ENO needs less capacity than it has reported.** Properly accounting for ENO’s own planned solar investments reduces ENO’s claimed capacity deficit from 99 MW in 2026 to 49 MW. Including the Council’s 2 percent annual efficiency target turns ENO’s capacity deficit into a [REDACTED] MW [REDACTED]. Adding reasonable expectations regarding future rooftop solar installations to the 2 percent savings brings that capacity [REDACTED] MW.
2. **ENO has not considered a full set of alternatives to meet New Orleans’ needs.** Witness Philip Henderson explains how the use of competitive procurement would ensure that all viable market options are taken seriously.
3. **ENO has not considered all of the ways in which renewable energy could meet New Orleans’ needs.** A competitive procurement process would reveal all renewable energy resource proposals that are viable in a market setting, potentially including power purchase agreements for MISO wind resources. ENO has also used the surprising assumption that new

⁹ Entergy New Orleans, “Your FAQs Answered: New Orleans Power Station”, http://www.entergy-neworleans.com/powertogrow/power_station/Power_Station.pdf



1 installations of rooftop solar in New Orleans will [REDACTED]

2 4. **ENO claims that energy efficiency cannot provide the same low-cost benefits in New**
3 **Orleans that this resource provides in other states.** The City Council currently awaits the
4 results of an efficiency potential study aimed at resolving this question.

5 5. **ENO finds that NOPS is the economic choice for New Orleans only when assuming very**
6 **high projections of future capacity market prices.** Using ENO's "lower" capacity prices
7 (which are still more than a [REDACTED] than current prices), [REDACTED]
8 [REDACTED] are the most economic alternative.

9 6. **Transmission upgrades are less expensive than and provide more resilience than building**
10 **NOPS.** Witness Peter LanzaLotta discusses the benefits of transmission upgrades in the context
11 of the liabilities created by NOPS.

12 7. **The best generation and transmission system in the world cannot serve customers over**
13 **broken poles and wires.** The City Council currently awaits an assessment of electric
14 distribution system reliability.

15 8. **New natural gas electric generators will emit greenhouse gases.** New Orleans' City Council
16 and Mayor's Office have called for specific reductions in greenhouse gases to address the
17 dangers of climate change. ENO has not provided the information that would be necessary to
18 assess the impact of NOPS on New Orleans' emissions.

19 9. **I recommend that the City Council wait until it has all information at hand before making**
20 **its decision regarding NOPS.** Information necessary to good decision-making in the public



1 interest includes the results of a competitive procurement process, and the expected DSM
2 potential study and reliability assessment.

3 3. CLAIMED NEED FOR CAPACITY

4 **Q8. As part of its justification for NOPS, has ENO provided a forecast of peak load and capacity**
5 **need?**

6 **A.** Yes. ENO provided a forecast of peak load and capacity obligation. The latter is calculated by
7 assuming a 12 percent “reserve margin” over and above non-coincident peak load. Therefore,
8 ENO’s capacity obligation is the forecasted peak load multiplied by 1.12. ENO then assesses how
9 much of a deficit or surplus it has, based on a comparison of its peak capacity obligation and the
10 amount of capacity resources it has available. In July 2017, the Company projected a capacity
11 deficit of 99 MW by 2026.¹⁰

12 **Q9. Is this higher or lower than the capacity deficit that ENO projected in the 2016 application?**

13 **A.** The capacity deficit claimed in ENO’s July 2017 application is lower than that claimed in its 2016
14 application. ENO updated its load forecasts in 2017, decreasing them relative to those provided in
15 its 2016 filing. For instance, its 2016 forecast projected a capacity deficit of 134 MW by 2020—a
16 larger and more immediate capacity shortage than claimed in this case.¹¹

17 **Q10. How does ENO justify its lower 2017 projections of peak load and capacity deficit as**

¹⁰ Direct testimony of Seth E. Cureington, p.8, Table 2.

¹¹ Direct testimony of Seth E. Cureington, p.7, lines 4-5.



1 **compared to the original 2016 filing?**

2 A. ENO stated that: “The decline in the Company’s projected peak load was driven primarily by a
3 decline in projected sales among the residential and commercial customer classes.”¹²

4 **Q11. How is ENO’s “peaking and reserve deficit” different from the capacity deficit?**

5 A. ENO has classified resources as “base load,” “load following,” or “peaking and reserves.” The
6 Company then estimated how much capacity was required from these three categories of resources
7 compared to the types of resources that ENO had available. In 2026, ENO claims a deficit of 81
8 MW for base load resources, a surplus of 320 MW for load following resources, and a deficit of 338
9 MW for peaking and reserves resources.¹³ These three values sum to the 99 MW total capacity
10 deficit in 2026.

11 **Q12. Is the “peaking and reserve deficit” a useful stand-alone metric?**

12 A. No. Definitions of these three categories of capacity deficit appear to be idiosyncratic to ENO.
13 These distinctions are not meaningful when reviewed in isolation. For instance, ENO has a surplus
14 of load following capacity but this capacity could be operated during peak times. A review of the
15 peak and reserves deficit in isolation would cause unnecessary concern. In reality, ENO does not
16 need to balance each of these three categories’ capacity separately. Parties in this case should focus
17 only on the total capacity deficit or surplus.

¹² Direct testimony of Seth E. Cureington, p.8, lines 12-13.

¹³ Direct testimony of Seth E. Cureington, Table 2, p.8.



1 Q13. Is this a useful to classify ENO's capacity deficit into these three categories?

2 A. No. First, this method of classifying resources, and thus different capacity deficits, is not an industry
3 standard way of looking at resource shortfalls. None of the independent system operators (ISOs),
4 including MISO, determine reserve requirements by resource type; the standard is simply a total
5 reserve requirement by zone.

6 Second, this classification system is an outdated way of looking at generating units, and procuring
7 additional resources along these divisions would not benefit ENO's system moving into the future.
8 Historically, when there were fewer technology choices available, coal and nuclear resource were
9 labeled as baseload resources, natural gas combined cycle resources were labeled as intermediate or
10 load following resources, and natural gas combustion turbine (CT) resources were labeled as
11 peaking resources. These classifications were based on unit size, operating cost, and start/ramping
12 capabilities.

13 A number of trends in the electric sector have changed the relative economics of these traditional
14 resource types, including: low natural gas prices, reduced growth in electricity consumption,
15 declining costs of renewables, capital expenditures necessary to maintain aging plants,
16 internalization of greenhouse gas emission costs, and customers' shift to clean energy.¹⁴ These
17 factors have upended the notion of the "optimal supply mix stack"—the idea that utilities might
18 need some specified amount of baseload, intermediate, and peaking resources. The more modern
19 approach is to emphasize the acquisition of both supply- and demand-side resources that are cost-

¹⁴ Brattle Group. 2017. Advancing Past "Baseload" to a Flexible Grid. Available at:
http://www.brattle.com/system/publications/pdfs/000/005/456/original/Advancing_Past_Baseload_to_a_Flexible_Grid.pdf?1498246224



1 effective, flexible, and reliable in order to help the electric grid operate most efficiently.

2 **Q14. What is the capacity of the NOPS generating resource that ENO proposes to build?**

3 A. ENO proposes two options for NOPS: (1) a combustion turbine (CT) that provides “approximately
4 226 MW, at summer conditions”¹⁵ or (2) seven Wärtsilä 18V50SG Reciprocating Internal
5 Combustion Engine (RICE) generators providing 128 MW. ENO’s preferred option is the CT,
6 which would provide more than double the Company’s claimed capacity deficit in 2026—nine years
7 from now.

8 **Q15. Does ENO plan to procure more renewable energy resources in the near future?**

9 A. Yes. According to ENO’s 2017 application, the Company is planning to procure 100 MW of utility-
10 scale solar resources that will come online in 2020 and half of which MISO credits towards
11 capacity.¹⁶

12 **Q16. Would ENO’s planned investment in utility-scale solar reduce its claimed capacity deficit?**

13 A. Yes. ENO’s actual capacity need is reduced by 50 MW when these new resources are added, from 99
14 MW to 2026 to 49 MW.

15 **Q17. Would building NOPS leave the Company with excess capacity from 2020 through 2036?**

16 A. [REDACTED] according to ENO’s own projections, the Company’s plan to build either the CT or RICE and

¹⁵ Direct Testimony of Charles L. Rice Jr., p.7, line 8.

¹⁶ Direct Testimony of Charles L. Rice Jr., p.20, line 1-10; SEC-11_L_C Table_HSPM;
<https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/LOLEWG/2016/20161130/20161130%20LOLEWG%20Item%2002b%20Solar%20Capacity%20Credit%20Review.pdf>



1 100 MW of solar would lead to a [REDACTED] of capacity from 2020 through 2030. If the CT option were
2 built ENO's capacity [REDACTED] would continue through 2036 (the latest year shown).¹⁷

3 **Q18. Has ENO correctly represented its capacity deficit in the absence of NOPS?**

4 **A.** No. Figure 1 shows ENO's capacity position with and without NOPS (and using ENO's
5 assumptions of low energy efficiency investments and low distributed generation installations,
6 which are discussed below). While ENO claims a capacity deficit of 99 MW by 2026¹⁸, its correct
7 capacity deficit with planned utility scale solar is 49 MW before adjusting for ENO's assumptions
8 regarding energy efficiency and distributed generation.

¹⁷ SEC-11_L_C Table_HSPM

¹⁸ Direct testimony of Seth E. Cureington, p.8, Table 2.



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4 **Q19. Does ENO's reference peak load forecast include 2 percent annual increment energy efficiency**
5 **savings?**

6 A. No, ENO does not include 2 percent annual incremental energy efficiency savings in its reference
7 peak load forecast. As I discuss below, ENO has assumed a continuation of the "[REDACTED]" in
8 projecting future DSM savings.

9 **Q20. Did ENO develop an alternative load forecast assuming more savings due to demand-side**
10 **management?**

11 A. Yes. Responding to previous intervenor requests, ENO developed an alternative forecast assuming 2
12 percent incremental annual savings. Figure 2 compares ENO's base case load forecast with what it
13 calls its "High EE" (2 percent) load forecast. By 2026, higher demand side management savings



would lower peak load by ■■■ MW. Both forecasts shown are in terms of “non-coincident peak,” which is what the Company uses in calculating its capacity obligation.



Q21. Has ENO accounted for 2 percent energy efficiency savings when representing its claimed capacity deficit in the absence of NOPS?

A. No. Figure 3 shows ENO’s capacity position with 2 percent annual increment energy efficiency savings with and without NOPS (and using ENO’s assumptions of low distributed generation installations, which is discussed below). While ENO claims a capacity deficit of 99 MW by 2026¹⁹,

¹⁹ Direct testimony of Seth E. Cureington, p.8, Table 2.



1 with planned utility scale solar and additional DSM it would have a capacity [REDACTED] MW
2 without NOPS. Below, I discuss how this number would change using a more reasonable
3 assumption for small-scale solar installations.

4 [REDACTED]

5 [REDACTED]

6 [REDACTED]

7 [REDACTED]

8 [REDACTED]

9

10 **Q22. Has ENO accounted for customers' existing behind-the-meter solar installations in their load**
11 **forecast?**

12 **A.** Yes. ENO appears to have accounted for existing small, rooftop solar in New Orleans and limited
13 new installations of distributed generation in its load forecasts.

14 **Q23. Did ENO assume that customers' behind-the-meter solar installations would continue to**
15 **increase in the future?**

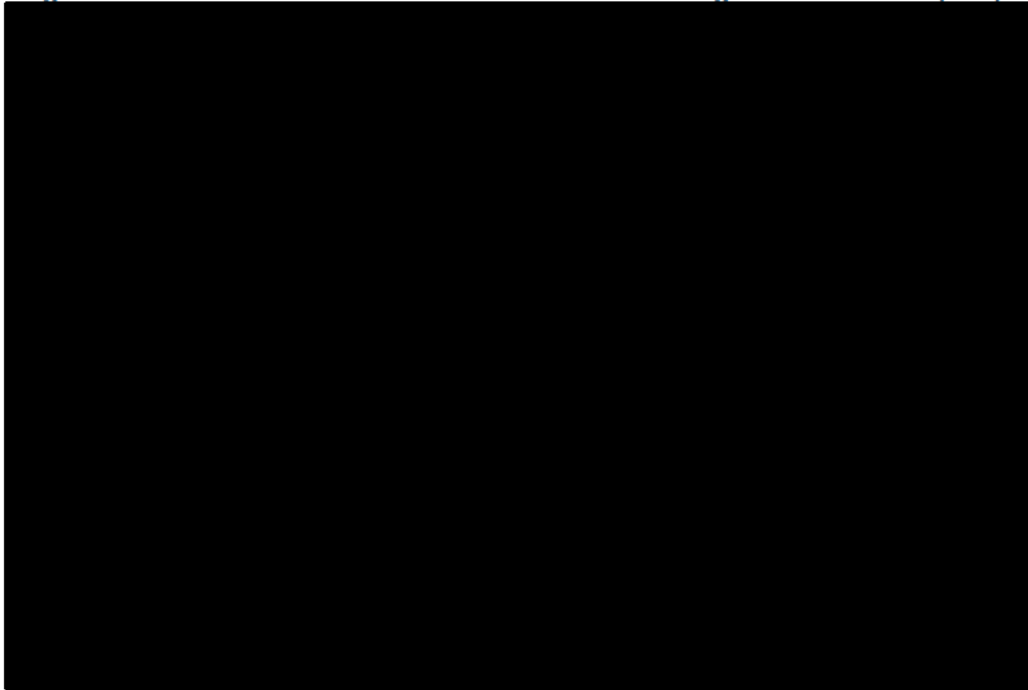


A. [REDACTED] ENO assumed that the number of small-scale solar systems would [REDACTED] (see Figure 7 below).

Q24. Is it reasonable to assume that growth in small-scale solar will [REDACTED] in New Orleans [REDACTED]?

A. [REDACTED] Small-scale solar capacity installed in New Orleans has grown almost six-fold from 2012 to 2016—as shown in Figure 4 below. The Solar Energy Industries Association (SEIA) expects that residential and commercial solar capacity in Louisiana will increase from 2017 through 2021 (the latest year they forecast).²⁰ ENO’s assumption that new solar development [REDACTED] is unreasonably conservative, and leads it to overstate its need for capacity.

Figure 4: Residential and commercial solar net metering in New Orleans (MW)



Source: Energy Information Administration 861, Net Metering Capacity for ENO in 2012 through 2016

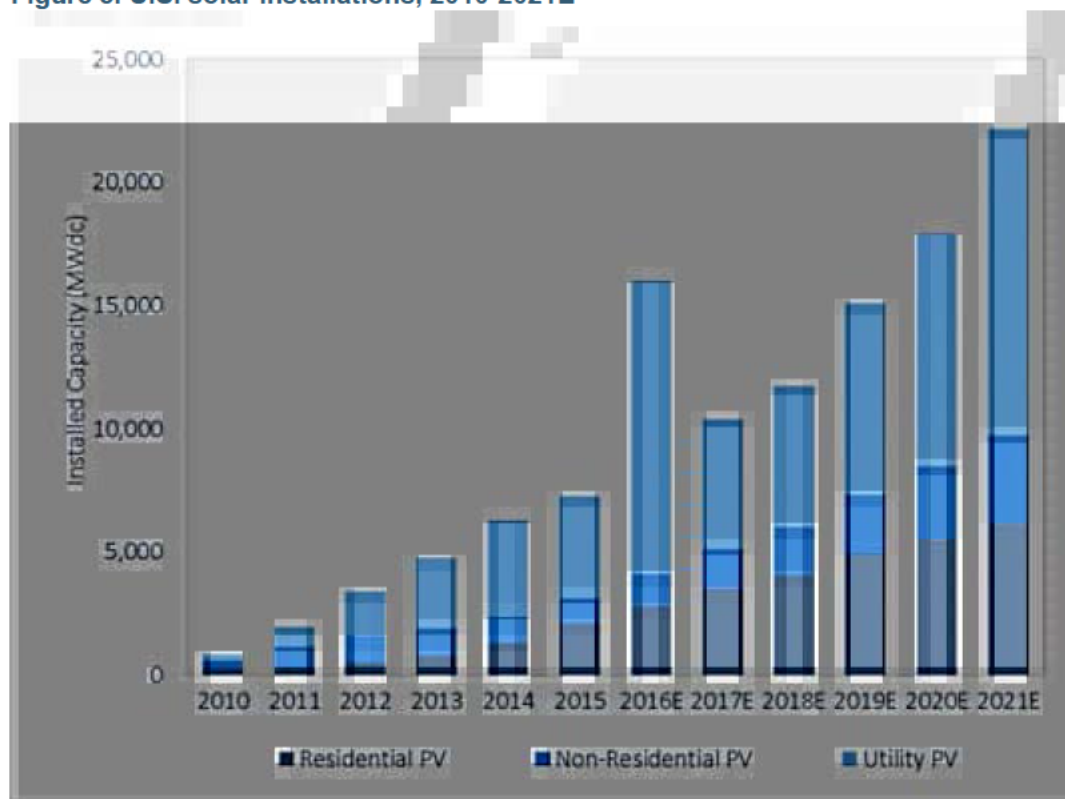
²⁰ Solar Energy Industry Association, “Louisiana Solar”, 2017, <https://www.seia.org/state-solar-policy/louisiana-solar>



Q25. Is uncertainty regarding state and federal tax credits a cause for pessimism regarding continued growth in distributed solar generation?

A. No. ENO has many reasons to remain optimistic about continued growth in rooftop solar installations. While the rate of growth in solar installations is expected to decline, in absolute terms solar installations across the country are expected to increase. This growth in residential rooftop solar is shown in dark blue in Figure 5, below, with future year expectations represented by an “E” following the year.

Figure 5. U.S. solar installations, 2010-2021E



Source: Reproduced from GTM Research and SEIA. 2016. *U.S. Solar Market Insight*.

Q26. What are the factors that are leading to the continued growth in rooftop solar?

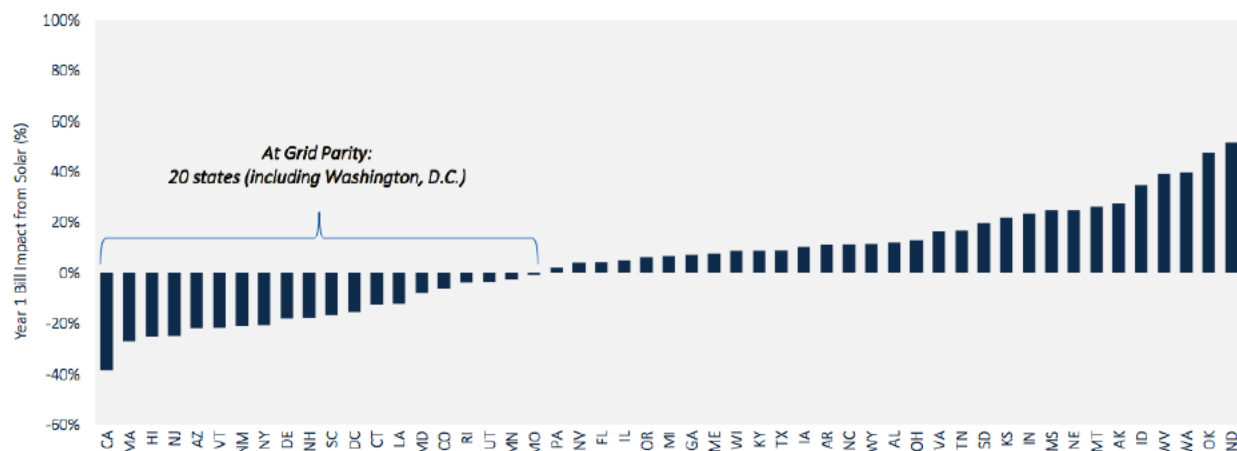
A. Several factors that are contributing to continued growth. The price of solar panels has declined in



recent years and their efficiency has increased. Pre-engineered systems that are easy to install have cut installation and labor costs. All of these factors have led to declines in overall system costs of rooftop solar. Increasing retail electric rates also cause solar to be more attractive to residential customers.

Rooftop achieves what is known as “grid parity” when the levelized cost of solar energy falls below gross electricity bill savings in the first year of a solar system’s life.²¹ According to GTM Research, rooftop has already achieved grid parity in Louisiana, as shown in Figure 6.

Figure 6. States at grid parity in 2016



Note: Grid parity metrics account for all NEM and rate reforms currently in effect for modeled utilities.

Source: Reproduced from GTM Research

Q27. What are the factors that might lead to increases in rooftop solar installations beyond 2020?

A. Further increases in the efficiency of solar panels and decreases in overall solar system costs are expected. GTM Research expects an approximately 27 percent drop in average global solar prices

²¹ Greentech Media. 2016. U.S. Residential Solar Economic Outlook 2016-2020: Grid Parity, Rate Design and Net Metering Risk. Accessed October 12, 2017. Available at: <https://www.greentechmedia.com/research/report/us-residential-solar-economic-outlook-2016-2020#gs.mtKF5Zk>



1 by 2022, or 4.4 percent each year.²² Developments in battery storage technologies will also lead to
2 growth in solar installations. As storage options become more affordable and more efficient,
3 residential solar customers will no longer be dependent on the electric grid, and the number of
4 residential solar installations can be expected to increase.²³ Contrary to ENO's assumption that
5 installations of rooftop solar will be frozen after 2020, it would be reasonable to expect growth in
6 New Orleans rooftop solar installations in future years.

7 **Q28. Did you develop an alternative load forecast assuming new behind-the-meter solar installations**
8 **after [REDACTED]?**

9 **A.** Yes. Continuing ENO's 2017-[REDACTED] linear growth trend in behind-the-meter solar installations from
10 [REDACTED] out to 2036, would result in [REDACTED] of additional, non-coincident peak load reduction (see
11 Figure 7) by 2036. This estimate does not take into account an increased rate of adoption of solar as a
12 result of the expected decrease in solar prices.

²² Greentech Media. June 27, 2017. Solar Costs are Hitting Jaw-Dropping Lows in Every Region of the World. Accessed October 12, 2017. Available at: <https://www.greentechmedia.com/articles/read/solar-costs-are-hitting-jaw-dropping-lows-in-every-region-of-the-world#gs.cqhi4Fk>

²³ Forbes. June 2, 2017. Why the U.S. Residential Solar Market Has Slowed Down. Accessed October 12, 2017. Available at: <https://www.forbes.com/sites/greatspeculations/2017/06/02/why-the-u-s-residential-solar-market-has-slowed-down/#6f6d4bb41939>



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5 **Q29. Has ENO accounted for reasonable growth in behind-the-meter solar capacity when**
6 **representing its claimed capacity deficit in the absence of NOPS?**

7 **A.** No. Figure 8 shows ENO's capacity position with ENO's planned utility-scale solar investments,
8 continued growth in small-scale solar capacity (per Figure 7), and 2 percent annual increment
9 energy efficiency savings with and without NOPS. While ENO claims a capacity deficit of 99 MW
10 by 2026²⁴, it would actually have a capacity surplus of ■ MW under these adjusted conditions.

²⁴ Direct testimony of Seth E. Cureington, p.8, Table 2.



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6 **Q30. Would a load forecast with higher DSM and new small-scale solar [REDACTED] be more**
7 **reasonable?**

8 **A.** Yes. ENO's assumptions with respect to DSM and small-scale solar lead to an overstated capacity
9 deficit. When including planned utility-scale solar projects, ENO projects a deficit of 49 MW through
10 2026. Accounting for [REDACTED] MW in peak load reduction from 2 percent annual incremental DSM
11 savings called for by the City Council would change this to a [REDACTED] MW [REDACTED]. Reasonable growth
12 assumptions for behind-the-meter solar raise the [REDACTED] still further to [REDACTED] MW (see Figure 9).



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Q31. How would ENO's capacity situation change if additional DSM and rooftop solar growth were incorporated into its forecast?

A. With 2 percent annual incremental DSM savings and continued growth in small-scale solar after 2020, ENO would have [REDACTED] capacity for a majority of the next twenty years without building NOPS (see Figure 8 above).

Q32. Do New Orleans electric customers face high costs in comparison to other U.S. cities?

A. Yes. As a share of the median household's gross income, New Orleans energy bills are third highest among major cities, after Memphis and Birmingham. The median New Orleans households spends over 5 percent of its income on energy, compared to a median of 3.5 percent across U.S. cities.



1 Low-income households in New Orleans spend almost 10 percent of their income on energy.²⁵

2 **Q33. How would investment in excess capacity resources like NOPS affect New Orleans' electric**
3 **customers' costs?**

4 **A.** The cost impact of excess investment in capacity resources like NOPS is strongly dependent on
5 assumptions regarding the expected future capacity price (as is discussed below in more detail). If
6 today's low MISO capacity prices continue, excess capacity could be a liability for ENO and an
7 added cost burden for its customers.

8 **4. BENEFITS OF COMPETITIVE PROCUREMENT**

9 **Q34. How can the Council ensure that it is choosing resource investments that are in consumers'**
10 **best interests?**

11 **A.** Witness Philip Henderson's testimony describes the process of "competitive procurement" or "all-
12 source solicitation," which is designed specifically to ensure that utility regulators like the Council
13 have the information necessary to allow clear, detailed cost and benefit comparisons they need to
14 choose resource investments that are in consumers' best interests. Through competitive procurement
15 a commission reviews proposals from market participants that allow the utility (and its regulators) to
16 compare a variety of resources on an equal footing. This process starts with a public solicitation for
17 bids to meet the jurisdiction's particular energy, capacity and ancillary services needs.

²⁵ Dreho, A. and L. Ross, Lifting the High Energy Burden in America's Largest Cities: How Energy Efficiency Can Improve Low Income and Underserved Communities, ACEEE Report, April 2016, Page 17, <http://aceee.org/research-report/u1602>



Q35. What benefits are lost to customers when there is no competitive process?

A. Allowing all sources to compete to provide the best value to the New Orleans electric consumers would result in the following benefits:

1. Better transparency for stakeholders
2. Cost proposals that are based on current market conditions
3. Bids that reflect competitive pressures, offering the best value for the money
4. Full documentation of financial and engineering assumptions used to develop bids
5. Assessment of a complete set of both conventional and unconventional alternatives to meet needs
6. Creative solutions from the wider marketplace, based on the latest technology (rather than relying on the utility planner to stay on top of all developments)

Q36. Has a public solicitation been made or competitive bids gathered to determine a cost-effective set of potential resource additions for New Orleans?

A. No.

5. POTENTIAL ALTERNATIVES FOR CONSIDERATION

5.1. RENEWABLE GENERATION



Q37. How do investments in behind-the-meter solar, utility-scale solar, and power purchase agreements for wind impact ENO's need for new capacity?

A. If ENO builds or signs contracts for solar or wind resources, its need for other types of capacity is reduced. Small-scale solar projects that are installed directly by customers, i.e. rooftop projects or distributed generation, also reduce ENO's need for other capacity by reducing demand from the grid. These projects are typically "behind-the-meter"—they do not count towards available capacity (supply) but instead reduce the peak load (demand) and energy requirements of the system. ENO's capacity deficit or surplus is the difference between available capacity and forecasted peak load. Increasing generating capacity reduces any deficit; so too does decreasing peak load behind-the-meter.

Q38. Are wind quantities available such that ENO could meet a portion of its need via power purchase agreements?

A. Wind power purchase agreements (PPAs) in MISO are widely-available and priced at record low levels. The total amount of wind in MISO has grown considerably in the last decade, with more than 11,000 MW of wind generation now in service in MISO territory, and an additional 7,000 MW in proposed projects moving through the interconnection queue.²⁶

Q39. Would wind PPAs be priced economically in comparison to the proposed combustion turbine?

A. According to the most recent *Wind Technologies Market* report from the U.S. Department of Energy, wind PPA prices are at record low levels. The report, published in 2016, states that the national average levelized price of wind PPAs have dropped to \$20/MWh, and that the projects

²⁶ MISO. 2017. Renewable Energy. Accessed October 6, 2017. Available at: <https://www.misoenergy.org/WhatWeDo/StrategicInitiatives/Pages/Renewables.aspx>



1 that make up this average are largely located in the Interior United States, where most of the
2 recent new wind capacity has been added. The Interior has become the lowest priced region of
3 the country, due to the combination of higher capacity factors, declining costs, and record-low
4 interest rates.²⁷

5 **Q40. Would there be any constraints in moving wind energy into Louisiana?**

6 A. At least one transmission project currently under development would facilitate transport of wind
7 energy into the state of Louisiana. The Southern Cross Project is a direct current transmission line
8 with a baseload capacity of 2,000 MW that is intended to bring wind energy from Texas to
9 customers in the Southeast, including Louisiana. The line is expected to be in service in 2021.²⁸
10 Wind resources delivered via the Southern Cross are being marketed at prices between \$20-
11 \$30/MWh—comparable to the price of operating a natural gas combined cycle plant.²⁹

12 **Q41. Are there any other ways that ENO could use renewable energy to reduce its claimed capacity**
13 **deficit.**

14 A. Yes. As discussed above, investment in utility-scale solar would increase capacity and the
15 facilitation of customer investments in behind-the-meter solar would reduce non-coincident peak
16 load. In addition to the 100 MW of utility-scale solar planned by ENO (which will result in a 50
17 MW load reduction in capacity obligation), the Company also includes an additional ■■■ MW

²⁷ U.S. Department of Energy. 2016. 2016 Wind Technologies Report. Page viii. Available at:
https://emp.lbl.gov/sites/default/files/2016_wind_technologies_market_report_final_optimized.pdf

²⁸ Southern Cross. 2017. Accessed October 6, 2017. Available at: <http://southerncrosstransmission.com/>

²⁹ Southern Alliance for Clean Energy. “Delivering low-cost renewable energy to the Southeast.” October 28, 2016.
<http://blog.cleaneconomy.org/2016/10/28/hvdcstransmission/>



investment in solar in its “requested portfolios”, for a total of ■■■ MW.³⁰

Q42. Are solar resources categorized as “peaking” resources?

A. While solar resources are not considered “peaking” resources in the conventional sense (whereby they can ramp up quickly to meet additional need during peak times of day) the output from solar resources coincides with summer demand peaks caused by air-conditioning loads.³¹ So while solar resources are not dispatchable, they are generating resources that can lower peak load requirements. For this reason, MISO credits 50 percent of the capacity of utility-scale solar in determining whether or not utilities are meeting their capacity requirements.³²

Q43. Does ENO include battery storage in its capacity deficit calculations or cost projections?

A. No, ENO explains it expects battery storage to be uneconomic and therefore excludes it from its analysis:

However, without cost-effective storage, which does not exist at this time, it is not possible to utilize intermittent resources to meet ENO’s capacity reserve needs and, in turn, ensure reliable service to customers.³³

Intermittent resources have a place in ENO’s supply portfolio. To the extent that those resources can provide cost effective sources of energy, they will benefit customers. Indeed, ENO is undertaking an RFP to determine whether there are cost-effective renewable resources available. However, without cost-effective storage, which does not exist at this time, it is not possible to utilize intermittent resources to meet ENO’s capacity reserve needs and, in turn, ensure reliable service to customers.³⁴

³⁰ Exhibit SEC-13_ENO CT Update Analysis_HSPM.xlsx

³¹ NREL. 2010. Solar Power and the Electric Grid. Available at: <https://www.nrel.gov/docs/fy10osti/45653.pdf>

³² MISO, *Solar Capacity Review*, November 30, 2016, <https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/LOLEWG/2016/20161130/20161130%20LOLEWG%20Item%2002b%20Solar%20Capacity%20Credit%20Review.pdf>

³³ Docket UD-16-02 Supplemental and Amended App PUBLIC, p.19

³⁴ Docket UD-16-02 ENO CT App PUBLIC FINAL XXVI, p.15



1 According to market research behind-the-meter battery storage will represent half of the storage
2 market by 2020.³⁵ Battery storage turns solar panels into dispatchable generation that's ready to
3 provide capacity when needed.

4 5.2. DEMAND SIDE MANAGEMENT

5 Q44. How do demand side management investments impact ENO's need for new capacity?

6 A. Demand side management programs like demand response, direct load control, remote thermostat
7 control, battery and thermal storage, load-impacting efficiency measures, and combined heat and
8 power reduce peak load impacting directly on a utility's ability to meet its load obligations and need
9 for new capacity resources.

10 Q45. What demand side management investments and other actions are required by the New 11 Orleans City Council?

12 A. City Council Resolution No. R-15-599 calls on ENO to incorporate "the goal of increasing the
13 projected savings from the Energy Smart program by 0.2% per year, until such time as the program
14 generates kWh savings at a rate equal to 2% of annual kWh sales" in its Energy Smart and IRP
15 filings.³⁶ City Council Resolution No. R-17-176 instructs ENO together with various stakeholders to

³⁵ Forbes. June 2, 2017. Why the U.S. Residential Solar Market Has Slowed Down. Accessed October 12, 2017.
Available at: <https://www.forbes.com/sites/greatspeculations/2017/06/02/why-the-u-s-residential-solar-market-has-slowed-down/#6f6d4bb41939>

³⁶ City Council Resolution No. R-15-599, p.17. Attached as EAS Exhibit C.



1 “evaluate the feasibility of an additional program year goal related to peak kW reduction”³⁷ and
2 instruct ENO to include by October 1, 2017 in implementation plans for program years 8 and 9 “a
3 recommendation based on any consensus of all parties for incorporating an additional program year
4 goal relating to peak kW reduction into the evaluation of all Energy Smart measures and programs
5 for future program years and program year filings”.³⁸

6 **Q46. Has ENO filed an updated Energy Smart implementation plan for program years 7 to 9**
7 **including a program measure of MW savings at peak?**

8 **A.** Yes. ENO’s Energy Smart Program Supplemental and Amended Implementation Plan Report:
9 Program Year 7-9, Exhibit 1 (CNO Docket No. UD-08-02) states: “A discussion of a peak kW
10 reduction goal is included in this Report, below. As noted below, “consensus of all parties” was not
11 achieved as related to the decision to add a peak kW reduction goal at this time.”³⁹

12 ENO’s Program Year 7-9 Plan, Exhibit 2 shows planned DSM savings at peak of 4.2 MW in 2017
13 up to 14.7 MW in 2019 (see Figure 10).⁴⁰

³⁷ City Council Resolution No. R-17-176, p.14. Attached as EAS Exhibit D.

³⁸ *Id.*

³⁹ ENO’s Energy Smart Program Supplemental and Amended Implementation Plan Report: Program Year 7-9, Exhibit 1 (CNO Docket No.UD-08-02), p.13.

⁴⁰ ENO’s Energy Smart Program Supplemental and Amended Implementation Plan Report: Program Year 7-9, Exhibit 1 (CNO Docket No.UD-08-02), p.14.



1 **Figure 10. Energy Smart New Orleans DSM portfolio savings**

ENERGY SMART NEW ORLEANS			
DSM PORTFOLIO SAVINGS	Year 7	Year 8	Year 9
Residential Total			
Participation	132,119	165,574	162,317
Gross Energy Savings (MWh)	6,975	14,025	17,373
Gross Demand Savings (MW)	2.4	6.9	9.2
C&I Total			
Participation	163	424	468
Gross Energy Savings (MWh)	11,598	28,963	32,894
Gross Demand Savings (MW)	1.8	4.8	5.4
Energy Smart Total			
Participation	132,282	165,998	162,785
Gross Energy Savings (MWh)	18,573	42,989	50,266
Gross Demand Savings (MW)	4.2	11.7	14.7

2
3 *Source: Reproduced from ENO's Program Year 7-9 Plan, Exhibit 2 (p.14).*

4 **Q47. What does ENO conclude in its NOPS application regarding demand side management**
5 **investments?**

6 **A.** ENO concludes that the DSM targets set by the City Council are either not technically feasible or
7 too expensive. ENO engaged ICF International, Inc. "to conduct an analysis of the long-term DSM
8 potential achievable in New Orleans" and Navigant Consulting, Inc. "to perform an additional
9 analysis to determine the maximum achievable amount of EE potential savings over a 20-year
10 planning horizon."⁴¹ "ICF concluded that the achievable amount of DSM in New Orleans is not

⁴¹ Docket No. UD-16-02, "Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief", pp.20



1 enough to negate the need for a local resource” while “Navigant concluded that, under a very
2 aggressive yet maximum achievable scenario, ENO could potentially reduce forecast sales by
3 approximately 0.85%/year over the next 20 years. This level of reduction would cost roughly \$400
4 million, but will not obviate ENO’s long-term need for incremental, long-term, local capacity.”⁴²

5 **Q48. What scenarios of DSM potential were presented in the Navigant study?**

6 **A.** The Navigant study focuses on an 0.85 percent annual savings scenario called the “High Case
7 Achievable Scenario.” Navigant also developed scenarios with higher savings called “High Case
8 Theoretical – Known Measures Scenario” and “High Case Theoretical – Known and Unknown
9 Measures Scenario.”⁴³ The “High Case Achievable Scenario” had the lowest average savings of
10 Navigant’s three scenarios.

11 **Q49. Were the potential savings developed by Navigant used in ENO’s load forecasts in the analysis**
12 **discussed in its 2017 NOPS application and provided as an exhibit to that application?**

13 **A.** No. The costs and savings associated with the “High Case Achievable Scenario” were not included
14 in the load forecast used in ENO’s NOPS application, nor in the Company’s economic analysis of
15 alternatives. In the reference case analysis used in its NOPS application, ENO modeled a “[REDACTED]
16 [REDACTED]” projection of DSM based on planned spending in its [REDACTED] and
17 escalated by [REDACTED] each year after 2020.⁴⁴ ENO’s reference case load projections include [REDACTED]

⁴² Docket No. UD-16-02, “Supplemental and Amending Application of Entergy New Orleans Inc. for Approval to Construct New Orleans Power Station and Request for Cost Recovery and Timely Relief”, pp.20

⁴³ Exhibit SEC-14, p.7

⁴⁴ Data Response to Advisors 7-6a, “20 year cost projection for status quo_HSPM”



the DSM savings of Navigant’s lowest (0.85 percent annual) potential efficiency savings.

In its “requested portfolios” ENO modeled a scenario with higher DSM that used Navigant’s “High Case Theoretical Known and Unknown Measures” scenario. This scenario ramps up to 2 percent incremental annual savings and sustains that level through the analysis period.⁴⁵ This scenario had the highest savings of all scenarios modeled by Navigant.

Q50. Why did ENO not include Navigant’s potential savings in its reference case?

A. ENO mentions Navigant’s findings but dismisses energy efficiency as lacking importance to peak load reduction saying that DSM “will not obviate ENO’s long-term need for incremental, long-term, local capacity.”⁴⁶

ENO’s “status quo” DSM savings used in its reference case load projections have about 0.40 percent incremental annual savings per year.⁴⁷ Navigant’s lowest savings scenario produces an average of 0.85 percent per year—more than double what ENO has been achieving in recent years. Navigant’s 0.85 percent annual savings is still a low aspirational goal. Currently, 16 states achieve more than 1 percent annual incremental savings.⁴⁸ Louisiana ranks 44th in the U.S. in terms of energy efficiency program savings by state.

Q51. What does ENO assume regarding the cost per unit of saved energy?

⁴⁵ Exhibit SEC-14, p.18.

⁴⁶ ENO Application, p.20.

⁴⁷ Direct testimony of Seth E. Cureington, p.37, line 14.

⁴⁸ ACEEE 2017 Scorecard, Table 20, p.9. Available at: <http://aceee.org/state-policy/scorecard>



A. Figure 11 shows the assumed total program spending in: 1) ENO (0.40 percent annual incremental savings) reference case, 2) Navigant's lowest (0.85 percent annual incremental savings) case and 3) Navigant's highest (2.0 percent annual incremental savings) case. Only (1) the highest and (3) the lowest lines shown below were included in the Company's economic analysis of alternatives.



ENO's program costs do not increase commensurately with projected savings. Navigant's projected savings in the "High Case Achievable" is slightly more than double the savings in its "Reference Case" yet costs are more than twice as high.

In addition, ENO used costs of [REDACTED] cents per kWh (first-year savings) in the "High Case Achievable"



scenario and [REDACTED] cents per kWh (first-year savings) in its “High Case Theoretical” scenario.⁴⁹ The cost of the incremental savings between these two scenarios, therefore, is [REDACTED] per kWh. This is the implied cost of measures needed to get to 2.0 percent annual savings when starting from 0.85 percent annual savings.

This [REDACTED] in cost per unit of energy saved appears to originate in Navigant’s assumptions regarding the program spending needed to achieve higher savings. In the lowest savings scenario, Navigant assumed that approximately 40 percent of efficiency measures’ incremental costs would be paid for by participants—i.e. out-of-pocket.⁵⁰ In its higher savings scenario, however, it assumed both that administrative costs would increase and that program incentives would need to cover 100 percent of the incremental measure costs—nothing would be paid for by participants.⁵¹

Q52. How do ENO’s energy efficiency cost projections compare to those of other utilities?

A. ENO’s cost of energy efficiency savings are more than double that of states with 2 percent annual incremental savings. As a result, ENO is assuming an exorbitant amount of spending on additional DSM. Top-performing states (including Massachusetts, Rhode Island and Vermont) spend between \$0.34 and \$0.39 cents per kWh (\$2016) on first-year savings.⁵²

Q53. Does ENO’s high assumed cost of energy efficiency handicap this resource in cost comparisons

⁴⁹ Both are average annual spending per kWh, in 2016 dollars.

⁵⁰ Exhibit SEC-14, p.17

⁵¹ Exhibit SEC-14, p.18.

⁵² ACEEE. Sep 2017. The 2017 State Energy Efficiency Scorecard. <http://aceee.org/research-report/u1710>.



model for its NOPS application?

A. Yes. Assuming such high costs for DSM makes it appear less attractive in comparison to other resources. Further reductions in load through DSM measures (2 percent annual incremental savings) could obviate any need for ENO to build a new capacity resource.

5.3. MARKET CAPACITY PURCHASES

Q54. Could ENO meet its MISO capacity and NERC transmission obligations by purchasing market capacity?

A. Yes. In fact, ENO presents a scenario that does just this called its “w/o Peaker” scenario.

Q55. Using ENO’s assumptions and modeling how does the cost of not building NOPS compare with the costs of building either a CT or RICE?

A. An exhibit to ENO’s 2017 application shows the results comparison reproduced below in Figure 12. Using its base capacity price, ENO finds that building the CT (“w/ G-Frame CT”) leads to lower system costs than a no NOPS scenario in which transmissions system upgrades occur (“w/o Peaker”). The Company finds that both of these scenarios are less expensive than building the RICE (“w/ Wartsila Machines”). ENO’s analysis uses low energy efficiency savings and low behind-the-meter installations as discussed above. Note also the row labeled “Capacity Purchases” which shows system net [REDACTED] for off system capacity sales in the RICE and CT scenarios, respectively, and a system [REDACTED] for net capacity purchases in the transmission upgrade scenario.



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5 **Q56. Is the capacity price forecast an important factor in determining each plan's costs?**

6 **A.** Yes. The capacity price forecast is critical to determining each plan's costs, and to ENO's conclusion
7 that building NOPS is preferred to not building NOPS. Witness Robert Fagan discusses MISO
8 capacity markets in detail and concludes that surplus capacity is expected in the MISO capacity
9 market, at least through 2026, and that for this reason MISO capacity prices are unlikely to approach
10 the levels used in ENO's reference case in that time period.

11 **Q57. How is the capacity price forecast important to determining plan costs?**

12 **A.** ENO is in the MISO electric dispatch region, which has a market for buying and selling capacity.
13 MISO is responsible for bulk reliability within its region, including Zone 9 where New Orleans is
14 located. Utilities in MISO can buy capacity when they are short or sell capacity when they are long.



ENO's assertion that it is facing a future capacity deficit relies on its assumption that MISO capacity will be expensive in the future. Figure 13 shows ENO's base case forecast of capacity prices and a sensitivity it ran assuming a lower capacity price trajectory. I have also included the actual MISO Zone 9 clearing prices for capacity in the past three years for comparison.

ENO's 2020 capacity price projections are [REDACTED] higher than recent historical MISO capacity prices.



Q58. Is ENO's "lower" capacity price forecast a more reasonable forecast?



1 A. ENO's "lower" capacity price forecast is more reasonable than its "base" forecast, however, the
2 lower capacity price forecast is still likely far too high. The "lower" capacity price forecast assumes
3 ■ percent of Cost of New Entry (CONE). The past clearing prices in ENO's region (MISO Zone 9)
4 have been small percentages of this number. For instance, the latest auction (2017/2018) clearing
5 price was \$1.50 per MW-day or less than one percent of CONE (\$251.42 per MW-day).⁵³

6 **Q59. Does ENO provide cost comparisons between building and not building NOPS using its**
7 **"lower" (but still very high) capacity price?**

8 A. Yes. An exhibit to ENO's 2017 application shows system costs of the same three scenarios using a
9 capacity price that is ■ percent lower than ENO's base capacity price (see Figure 14). With this
10 single change to ENO's modeling assumptions, the transmission upgrade ("w/o Peaker") scenario
11 becomes the ■ the scenarios in which the CT and RICE NOPS are built.
12 Note again the row showing revenues (negative) and costs (positive) of off-system capacity sales or
13 purchases.

⁵³ MISO 2017/2018 Planning Resource Auction Results, April 14, 2017. Available at:
<https://www.misoenergy.org/Library/Repository/Report/Resource%20Adequacy/Planning%20Year%2017-18/2017-2018%20Planning%20Resource%20Adequacy%20Results.pdf>



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4 **Q60. What did ENO estimate the clearing price would be in the 2017/2018 delivery year?**

5 A. ENO estimated that the clearing price would be [REDACTED] per MW-day in 2017/2018. This is [REDACTED]
6 [REDACTED] the actual 2017/2018 clearing price of \$1.50 per MW-day.

7 **Q61. How would the costs of building and not building NOPS compare using the 2018 capacity**
8 **price?**

9 A. Any expected future capacity price lower than ENO's "lower" price ([REDACTED] percent [REDACTED]) [REDACTED] the
10 price of the RICE and CT scenarios and [REDACTED] the price of the transmission upgrade ("w/o Peaker")
11 scenario.

12 **Q62. According to MISO, was Zone 9 (in which ENO is located) expected to have surplus capacity in**
13 **the next five years?**



A. Capacity prices have been low in large part because there is surplus capacity in MISO. Zone 9 (where ENO is located) has had surplus capacity in recent years and is expected to continue to have a surplus through 2022—the latest year that is projected by MISO.⁵⁴ The region’s most recent Resource Adequacy Forecast shows a “potential surplus” of 200 to 1,500 MW in Zone 9.⁵⁵ For the delivery years of 2019/2020, 2020/2021 and 2021/2022, MISO expects Zone 9 will have between 1,800 and 2,200 MW of surplus capacity.⁵⁶

Q63. In the past, has MISO over- or under-estimated the capacity resources needed?

A. In the past MISO has over-estimated the capacity resources needed. As a result, MISO has had a surplus of capacity in recent years. An outlook of MISO’s resource adequacy released in July 2017 stated that “Decreases in demand forecast leads to a lower resource adequacy risk than previously projected.”⁵⁷

MISO also stated that the annual growth rate in regional load had decreased from 0.8 percent to 0.5 percent.⁵⁸ In 2016, MISO explained that “demand has shrunk due to reduced forecasts and point load reductions” and “current forecasts of modest load growth are not in line with recent history of flat year-to-year loads.”⁵⁹ In 2015, MISO noted that year’s load forecasts “were below previous

⁵⁴ 2017 OMS MISO Survey Results, July 2017, slide 71. Available at: <https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/RASC/2017/20170712/20170712%20RASC%20Item%2002%20OMS%20Survey%20Results.pdf>

⁵⁵ *Id.*

⁵⁶ *Id.* slide 67

⁵⁷ *Id.*, slide 2.

⁵⁸ *Id.*

⁵⁹ 2016 OMS MISO Survey Results, June 2016, slide 1. Available at: <https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/Workshops%20and%20Special%20Meetings/2016/OMS-MISO%20Survey/2016OMS-MISOSurveyResults.pdf>



1 projections.”⁶⁰ There is a clear pattern of overestimating load in MISO that has led to surplus
2 capacity in the region.

3 **Q64. Does procuring too much capacity carry risks to ENO and its ratepayers?**

4 A. Yes. If ENO builds NOPS it will have a capacity surplus for the majority of the next 20 years—
5 possibly more—under the Company’s proposed plan. This excess capacity would be sold on the
6 capacity market and would fetch the Zone 9 clearing price. ENO is recommending that the City
7 Council base its decision making on the assumption that this price will skyrocket and remain high
8 for much of the 20-year analysis period. This is highly unlikely and exposes the ratepayers to higher
9 costs in the likelier event that capacity prices will remain low. If capacity prices remain at historical
10 low levels or do not reach high levels for a long period, ENO’s excess capacity will not have the
11 claimed value and pursuing NOPS would not be the least-cost option.

12 This dynamic is shown in ENO’s modeling of a “lower” (but still very high) capacity price that
13 shows that the lowest-cost option in two out of three gas price scenarios was to not construct a new
14 peaking resource. It is also important to recall that ENO’s modeling was done in the context of an
15 inflated load forecast using low energy efficiency savings and low behind-the-meter solar projects
16 as discussed above.

17 **Q65. How do the costs of a new combustion turbines like the proposed NOPS CT compare to other**
18 **technologies?**

⁶⁰ 2015 OMS MISO Survey Results, July 2015, slide 1. Available at:
<https://www.misoenergy.org/Library/Repository/Meeting%20Material/Stakeholder/SAWG/2015/20150709/20150709%20SAWG%20Item%2002%202015%20OMS-MISO%20Survey%20Results.pdf>



A. Costs of a combustion turbine are high compared to other technologies. When comparing costs all of the costs of a technology must be considered—capital, fixed O&M, and variable O&M—in order to get a complete picture of the costs that would be recovered from ratepayers over the life of the unit if installed. Lazard issues an annual Levelized Cost of Energy Analysis, and in the most recent edition, “Gas Peaking” plants are shown to be one of the more expensive generating technologies in a comparison of the unsubsidized levelized cost of energy.⁶¹

Q66. How often do combustion turbines actually generate electricity?

A. Combustion turbines are intended only to be used in times of peak demand, and thus sit idle for much of the year. Average annual capacity factors for natural gas CTs are shown in Table 1, below.

Table 1. Average annual capacity factors for natural gas combustion turbines

Year	Average Annual Capacity Factor for a CT
2013	4.9%
2014	5.2%
2015	6.9%
2016	8.3%

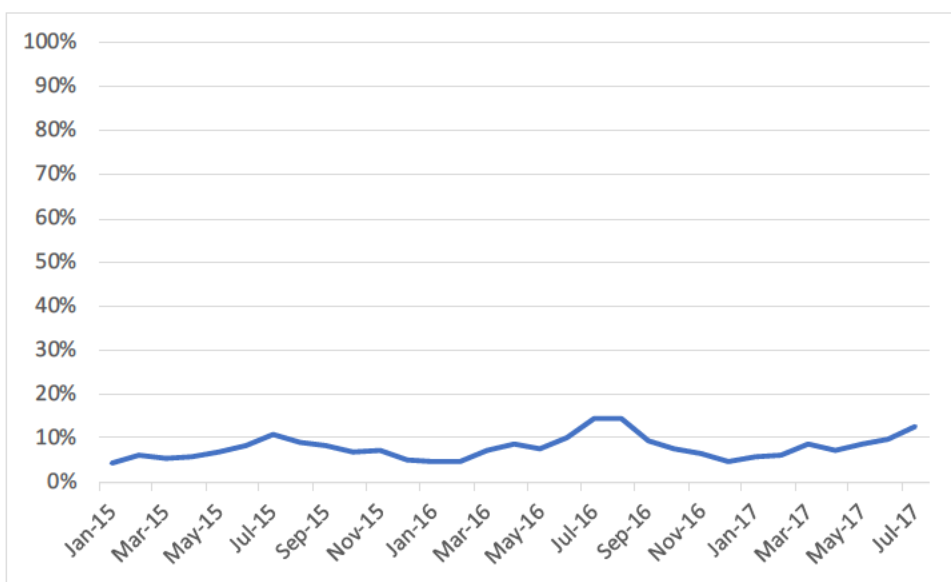
Source: EIA Electric Power Monthly. Table 6.7.A. Available at: https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_6_07_a

⁶¹ Lazard’s Levelized Cost of Energy Analysis—Version 10.0, <https://www.lazard.com/media/438038/levelized-cost-of-energy-v100.pdf>



The increase in average annual capacity factor from 2013 to 2016 is largely due to falling natural gas prices over this period; however, even with low natural gas prices, peaking CTs are still operating at less than 10 percent of their maximum output over the course of the year. Often CTs operate more during the summer peak, as shown below in Figure 15. This is also the time at which solar output is at its maximum.

Figure 15. Average monthly capacity factors for combustion turbines, January 2015 - July 2017



Source: EIA Electric Power Monthly. Table 6.7.A. Available at: https://www.eia.gov/electricity/monthly/epm_table_grapher.php?t=epmt_6_07_a; see EAS Exhibit B Stanton workpapers HSPM

Q67. Have other states exhibited concern regarding construction of new natural gas peaker plants?

A. Yes. California regulators have recently rejected upgrades to one natural gas peaking plant and denied approval to another.⁶²

⁶² Shellenberger, Krysti, Utility Dive, “Puente gas plant should not be approved, California energy committee says”, October 6, 2017, <http://www.utilitydive.com/news/puente-gas-plant-should-not-be-approved-california-energy-committee-says/506739/?mobileapp=2>



1 **5.4. TRANSMISSION UPGRADES**

2 **Q68. How do investments in transmission upgrades impact ENO's need for new capacity?**

3 **A.** ENO provides modeling of a scenario in which the transmission system is upgraded, NOPS is not
4 built, and ENO is able to meet its MISO capacity credit and FERC transmission obligations. By
5 ENO's own assertion, transmission upgrades are an alternative to building NOPS. The testimony of
6 Witness Peter Lanzalotta discusses these issues and concludes that a transmission alternative to
7 NOPS is not only feasible but may be more reliable than NOPS.

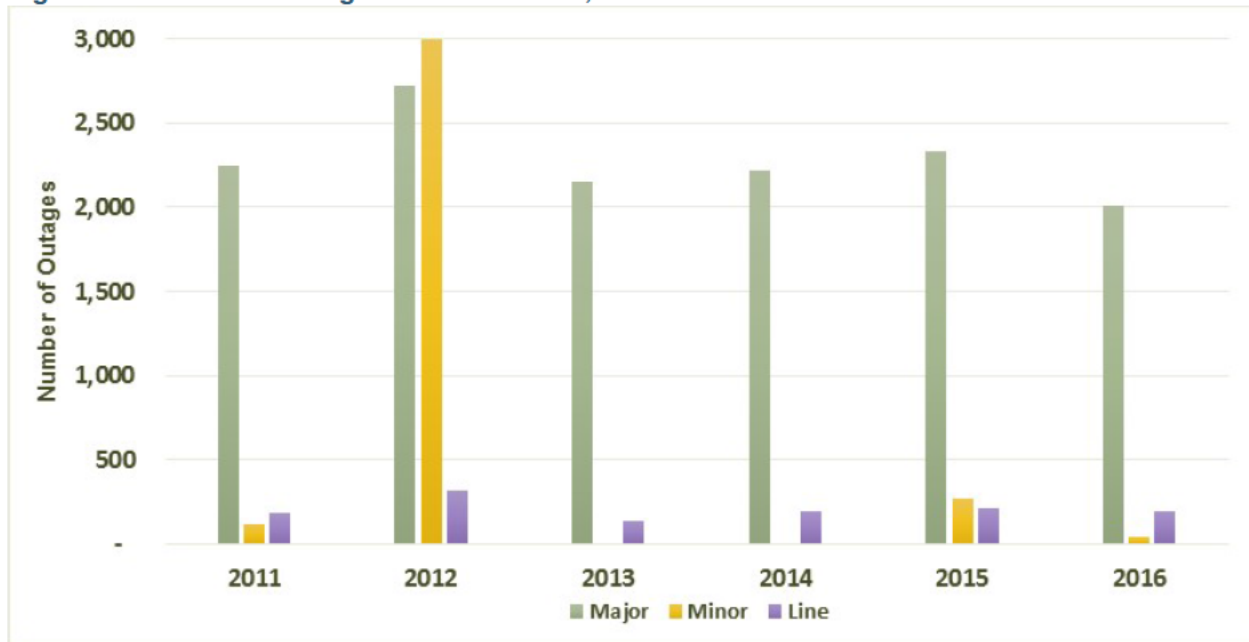
8 **5.5. DISTRIBUTION UPGRADES**

9 **Q69. Does New Orleans have reliable service?**

10 **A.** No. ENO customers suffered 2,242 power outages in just the first 8 months of 2016 (the period for
11 which ENO made data available). That's an average of 9 outages per day—down from 17 outages
12 per day in 2012, a year in which storm related damage left ENO's customers without power for
13 several days (see Figure 16).



Figure 16. Number of outages in New Orleans, 2011-2016



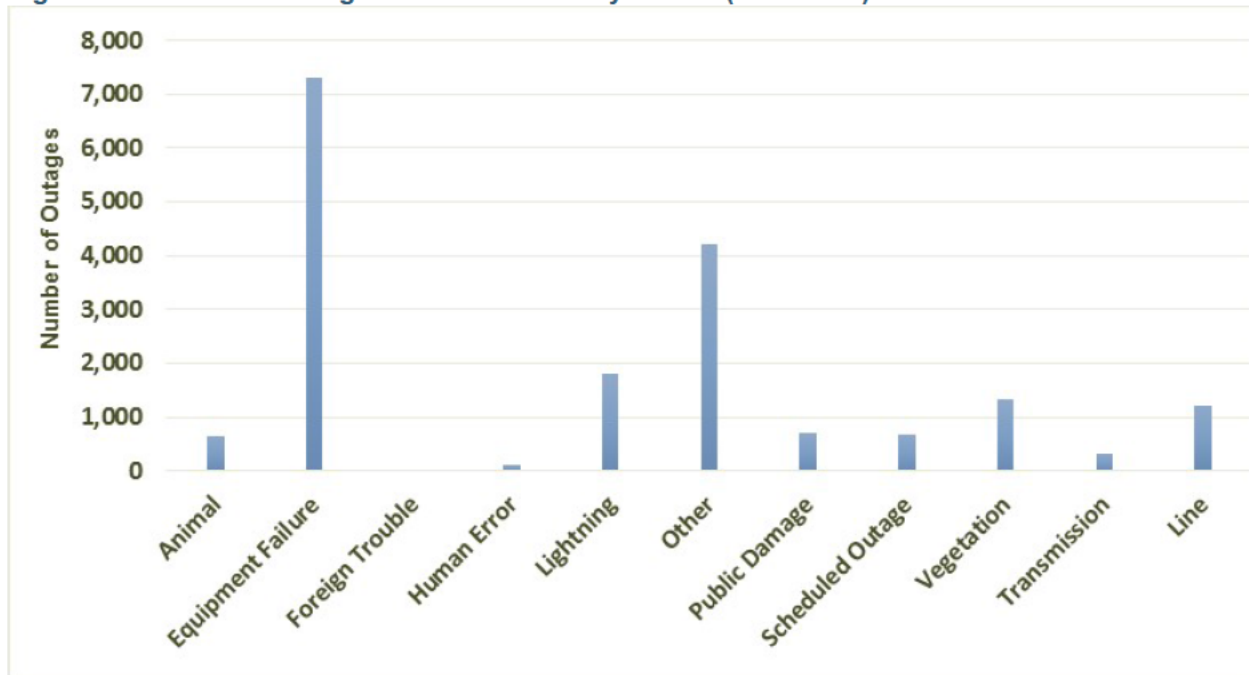
Source: UD-16-01 Discovery Response AAE 2-1 in Council Docket UD-16-01; see EAS Exhibit B Stanton workpapers

HSPM

Over the 2011 to 2016 period, less than 2 percent of all outages were caused by electric transmission problems (see Figure 17). The remaining outages were caused mainly by equipment failure and line damage.



Figure 17. Number of outages in New Orleans by reason (2011-2016)



Source: UD-16-01 Discovery Response AAE 2-1 in Council Docket UD-16-01; see EAS Exhibit B Stanton workpapers

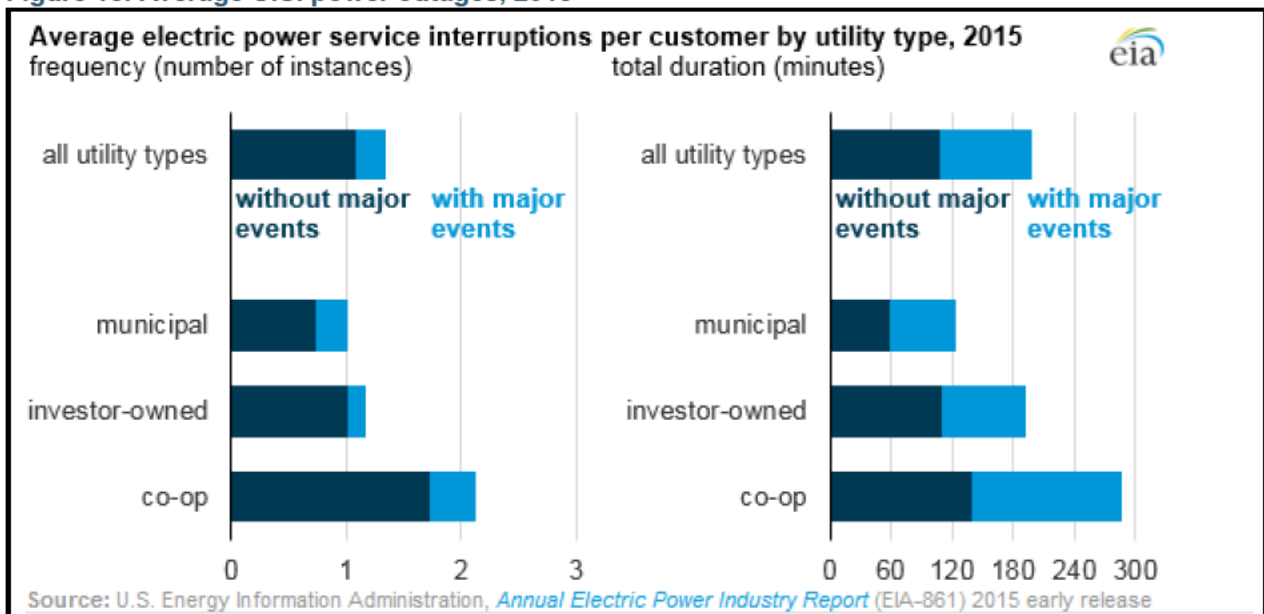
HSPM

Q70. How do the outages faced by New Orleans customers compare to those experienced by customers in other cities?

A. New Orleans suffer thousands more outages per year than the national average. According to the U.S. Energy Information Administration the average number of outages for U.S. utilities in 2015 was between 1 and 2 (see Figure 18).



1 **Figure 18. Average U.S. power outages, 2015**



2 **Source:** Reproduced from EIA, *Today in Energy*, September 12, 2016,

3 <https://www.eia.gov/todayinenergy/detail.php?id=27892>

4

5

6 **Q71. Is the City Council taking steps towards addressing the problem of distribution outages?**

7 **A.** Yes. City Council Resolution R-17-427 orders that a report analyzing New Orleans' outages and

8 reliability performance be filed by December 31, 2017.

9 **Q72. ENO asserts "We need this power plant because without it New Orleans is at risk of cascading**

10 **electrical outages or blackouts throughout the city. Having local peaking generation will**

11 **provide grid stability for New Orleans and the region, support economic expansion and**

12 **support the addition of more renewables."**⁶³ **Would money spent building the NOPS capacity**

13 **resource reduce the already extraordinary number of outages experience by New Orleans**

⁶³ Entergy New Orleans, "Your FAQs Answered: New Orleans Power Station", http://www.entergy-neworleans.com/powertogrow/power_station/Power_Station.pdf



1 **customers?**

2 A. None of the power outages for the 2011 to 2016 period that are listed in the ENO's response to
3 Discovery Request AAE 2-1 in Council Docket UD-16-01 are attributed to an unplanned plant
4 outages or other shortages of capacity. New Orleans' frequent power outages appear to be caused by
5 a multitude of problems with its poles and wires, not with its generating resources.

6 **Q73. Would money spent on either NOPS or transmission upgrades reduce the number of power**
7 **outages in New Orleans?**

8 A. Two percent of New Orleans' power outages from 2011 to 2016 are attributed to transmission
9 failures, although most of these seem to be further classified as storm related. Witness Lanzalotta's
10 testimony points out that New Orleans distribution system is more vulnerable than its transmission
11 system under storm conditions. Without significant investment in New Orleans distribution system
12 it seems reasonable to expect future outage rates to be similar to those in the recent past. Neither
13 building NOPS nor transmission upgrades will lead to more electricity being consistently delivered
14 to customers if the distribution system is broken.

15 **Q74. How do investments in distribution upgrades impact on ENO's need for new capacity?**

16 A. Prevention of outages is the centerpiece of ENO's rationale in applying to build the NOPS capacity
17 resource, although from 2011 to 2016 actual outages appear to have had little or nothing to do with
18 the sufficiency of capacity within the service territory, especially since 781 MW of capacity were
19 available at Michoud until mid-2016. Distribution upgrades will not fill the claimed capacity deficit.
20 But these repairs are absolutely essential to preventing outages—the claimed goal of building
21 NOPS.



6. GREENHOUSE GAS EMISSIONS

Q75. What are the climate change goals as stipulated by the New Orleans City Council?

A. The City of New Orleans is committed to playing its part to reach the aims outlined in the Paris Agreement, including a city-wide goal to reduce greenhouse gas emissions by 50 percent from 2017 levels by 2030, as outlined in its policy document, the *Climate Action for a Resilient New Orleans*.⁶⁴

In June 2017, the New Orleans City Council Resolution No. R-17-303 set out the city's commitment to "continue its efforts to mitigate carbon emissions through promoting and adopting achievable increased energy efficiency measures and use of alternative energy sources" as well as its "commitment to the principles of the Paris agreement".⁶⁵

In July 2017, Mayor Landrieu's Executive Order MJL 17-06 committed the City of New Orleans to "reduce its communitywide greenhouse gas emissions by 50% by 2030" and adopted the "*Climate Action for a Resilient New Orleans* as a guiding policy to achieve its commitment."⁶⁶ The plan further stipulates that the city will "use 100% low-carbon electricity, take 50% of our trips in modes other than driving, and divert 50% of our waste from landfills."⁶⁷

Q76. Has the City Council articulated any additional expectations of ENO regarding greenhouse

⁶⁴ City of New Orleans, *Climate Action for a Resilient New Orleans*, <https://www.nola.gov/nola/media/Climate-Action/Climate-Action-for-a-Resilient-New-Orleans.pdf>

⁶⁵ Resolution No. R-17-303. Attached as EAS Exhibit E.

⁶⁶ Executive Order MJL 17-06. Regarding the baseline year for the emission reduction target, the *Climate Action for a Resilient New Orleans* states: "In 2030, New Orleans will have reduced our annual greenhouse gas pollution by 50% from what it is today" (<https://www.nola.gov/nola/media/Climate-Action/Climate-Action-for-a-Resilient-New-Orleans.pdf>, pp.7).

⁶⁷ City of New Orleans, *Climate Action for a Resilient New Orleans*, <https://www.nola.gov/nola/media/Climate-Action/Climate-Action-for-a-Resilient-New-Orleans.pdf>, pp.7



1 **gas emissions?**

2 A. Yes. The City Council has praised ENO's reduction of emissions, and noted that it expects ENO
3 will continue to make ambitious strides in their emissions reductions moving forward.

4 In August 2017, the New Orleans City Council stated that "as a result of the Council's efforts,
5 working with ENO regarding its resource portfolio over the last decade, ENO's carbon emissions
6 are already 50% below the national average with less than 4% of its energy portfolio coming from
7 coal and 2016 statistics indicating that number may be as small as 2%."⁶⁸ They added that "as a
8 result of the Council's regulatory path, ENO is on pace to reduce its coal component to less than 1%
9 before the Mayor's goal date of 2030...the Council has also pressed ENO for greater use of
10 renewable generation sources, which has resulted in a written commitment by ENO to add up to
11 100MW of zero carbon emitting renewables to its energy portfolio."⁶⁹

12 The Resolution further committed "the Council to work with the Administration in the further
13 development of the concepts set forth in the Climate Action Strategy" and "directs its Utility
14 Advisors and the Council Utility Regulatory Office to work with the Administration, and as each
15 proposal for a specific action affected by the Climate Action Strategy that requires Council approval
16 comes forward, the Utility, Cable, Telecommunications and Technology Committee shall open an
17 appropriate docket to provide a full and transparent process."⁷⁰

18 **Q77. Is ENO's application consistent with meeting the City of New Orleans' greenhouse gas**
19 **emission reduction goals?**

⁶⁸ Resolution No. R-17-428. Attached as EAS Exhibit F.

⁶⁹ *Id.*

⁷⁰ *Id.*



A. ENO's application appears to lack the information necessary to address dispatched generation or expected emissions from NOPS.

7. CONCLUSIONS/RECOMMENDATIONS

Q78. What conclusions have you reached after reviewing selected materials in this docket and the other sources described in your testimony?

A. An approval of NOPS construction would disregard the City Council's energy efficiency savings targets, ENO's solar commitments, common expectations regarding the future growth of rooftop solar, MISO market price expectations, and the combined experience of ENO and other utilities regarding the cost of energy efficiency measures. Building NOPS is only economic with the assumption of very high capacity market prices; without this assumption, transmission upgrades are the least cost option in ENO's own modeling. Other resources with the potential to help meet New Orleans peak load have not been considered by ENO, including rooftop solar and battery storage.

But before any new investments in capacity additions or peak shaving are made there is a prior, urgent need to repair New Orleans' distribution system. Capacity surpluses can never serve customers if the poles and wires are in such disrepair that they frequently fail to deliver electricity. Promotional materials suggesting otherwise ("We need this power plant because without it New Orleans is at risk of cascading electrical outages or blackouts throughout the city. Having local peaking generation will provide grid stability for New Orleans") seem misleading.

The City Council should delay any decision to approve NOPS until all information needed for good



1 decision-making in the public interest is available including the expected DSM study and reliability
2 assessment. To do otherwise risks that customers will be overcharged for a generation and
3 transmission system that still cannot reliably keep their lights on.

4 **Q79. What actions do you recommend to the City Council?**

5 **A.** I offer the following recommendations to the Council:

- 6 • **Consideration of a complete set of alternatives is essential to the protection of**
7 **consumer interests.** No action should be taken to approve ENO's NOPS application until a
8 competitive solicitation has been issued for New Orleans capacity needs and its bids
9 received and thoroughly reviewed.
- 10 • **Cost effective energy efficiency measures are a critical resource for meeting energy**
11 **and capacity needs.** No action should be taken to approve ENO's NOPS application until
12 the expected DSM potential study has been released and reviewed.
- 13 • **While new capacity resources cannot address the problem of frequent, costly power**
14 **outages in New Orleans, an impact on outages is claimed by ENO as one of the**
15 **rationales for building the NOPS resource.** No action should be taken to approve ENO's
16 NOPS application until the expected reliability study has been released and reviewed.

AFFIDAVIT

STATE OF Massachusetts)
)
COUNTY OF Middlesex)

I, Elizabeth A. Stanton, do hereby swear under the penalty of perjury the following:

That I am the person identified in the attached prepared testimony and that such testimony was prepared by me under my direct supervision; that the answers and information set forth therein are true and accurate to the best of my personal knowledge and belief; and that if asked the questions set forth herein, my answers thereto would, under oath, remain the same.

Elizabeth Stanton

Elizabeth A. Stanton

SWORN TO AND SUBSCRIBED BEFORE ME THIS 11th DAY OF Oct., 2017

[Signature]

NOTARY PUBLIC

My commission expires: May 18, 2018

EAS Exhibit A
Curriculum Vitae of Elizabeth A. Stanton

Elizabeth A. Stanton, Ph.D., Director and Senior Economist

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PROFESSIONAL EXPERIENCE

Applied Economics Clinic. Somerville, MA. *Director and Senior Economist*, February 2017 – Present.

The Applied Economics Clinic provides technical expertise to public service organizations working on topics related to the environment, consumer rights, the energy sector, and community equity. Dr. Stanton is the Founder and Director of the Clinic (www.aeclinic.org).

Liz Stanton Consulting, Arlington, MA. *Independent Consultant*, August 2016 – January 2017.

Providing consulting services on the economics of energy, environment and equity.

Synapse Energy Economics Inc., Cambridge, MA. *Principal Economist*, 2012 – 2016.

Consulted on issues of energy economics, environmental impacts, climate change policy, and environmental externalities valuation.

Stockholm Environment Institute - U.S. Center, Somerville, MA. *Senior Economist*, 2010 – 2012; *Economist*, 2008 – 2009.

Wrote extensively for academic, policy, and general audiences, and directed studies for a wide range of government agencies, international organizations, and nonprofit groups.

Global Development and Environment Institute, Tufts University, Medford, MA. *Researcher*, 2006 – 2007.

Political Economy Research Institute, University of Massachusetts-Amherst, Amherst, MA. *Editor and Researcher – Natural Assets Project*, 2002 – 2005.

Center for Popular Economics, University of Massachusetts-Amherst, Amherst, MA. *Program Director*, 2001 – 2003.

EDUCATION

University of Massachusetts-Amherst, Amherst, MA

Doctor of Philosophy in Economics, 2007

New Mexico State University, Las Cruces, NM

Master of Arts in Economics, 2000

School for International Training, Brattleboro, VT

Bachelor of International Studies, 1994

AFFILIATIONS

Global Development and Environment Institute, Tufts University, Medford, MA.

Senior Research Fellow, 2007 – present

TEACHING EXPERIENCE

College of New Rochelle, New Rochelle, NY

Assistant Professor, Department of Social Sciences, 2007 – 2008

Tufts University, Medford, MA

Adjunct Professor, Department of Urban Environmental Policy and Planning, 2007, 2017

Fitchburg State College, Fitchburg, MA

Adjunct Professor, Social Sciences Department, 2006

University of Massachusetts-Amherst, Amherst, MA

Adjunct Professor, Department of Economics, 2003 – 2006

Castleton State College and the Southeast Vermont Community Learning Collaborative, Dummerston, VT

Adjunct Professor, 2005

School for International Training, Brattleboro, VT

Adjunct Professor, *Program in Intercultural Management, Leadership, and Service*, 2004

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EAS Exhibit B
Stanton Workpapers HSPM

PUBLIC VERSION – CONFIDENTIAL REDACTED

EAS Exhibit C
City Council Resolution No. R-15-599

RESOLUTION

NO. R-15-599

CITY HALL: December 10, 2015

BY: COUNCILMEMBERS WILLIAMS, HEAD, GUIDRY, BROSSETT AND GRAY

**IN RE: COUNCIL REVIEW OF ENERGY SMART PROGRAM YEAR 4 AND ENERGY
SMART PROGRAMS' SOURCES AND USES OF FUNDS, AND AVAILABLE
FUNDING SOURCES**

DOCKET NO. UD-08-02

WHEREAS, pursuant to the Constitution of the State of Louisiana and the Home Rule Charter of the City of New Orleans ("Charter"), the Council of the City of New Orleans ("Council") is the governmental body with the power of supervision, regulation and control over public utilities providing service within the City of New Orleans; and

WHEREAS, pursuant to its powers of supervision, regulation and control over public utilities, the Council is responsible for fixing and changing rates and charges of public utilities and making all necessary rules and regulations to govern applications for the fixing and changing of rates and charges of public utilities; and

WHEREAS, Entergy New Orleans, Inc. ("ENO" or "Company"), effective September 1, 2015, is a public utility providing electric and natural gas service to all of New Orleans;¹ and

WHEREAS, ENO is a wholly-owned subsidiary of Entergy Corporation ("Entergy"). The other four operating companies are Entergy Arkansas, Inc. ("EAI"), Entergy Louisiana, LLC

¹ Prior to September 1, 2015, ENO's electric service area consisted of all of New Orleans except for Algiers ("Legacy-ENO service area").

("ELL")², Entergy Mississippi, Inc. ("EMI"), and Entergy Texas, Inc. ("ETI"). The five operating companies are referred to collectively as the ("Operating Companies"); and

WHEREAS, prior to September 1, 2015, ENO and ELL each operated a Council-authorized DSM program within their jurisdictions in Orleans Parish, known as the ENO Energy Smart Program and the ELL-Algiers Energy Smart Program, respectively, and after September 1, 2015, ENO assumed responsibility for both Energy Smart programs; and

WHEREAS, the March 25, 2009 Agreement in Principle in Docket No. UD-08-03, as adopted by Resolution No. R-09-136 ("2009 AIP"), provided that energy efficiency targets should be set based on approved funding levels and that such targets shall be reviewed annually to account for changes in funding, program design and market conditions. Pursuant to the 2009 AIP, for every 12 month program period the Council will evaluate the funding level, savings goals, and deemed savings calculations; and

WHEREAS, the 2009 AIP and Resolution No. R-09-136 also provided for: (i) recovery of lost contribution to fixed costs ("LCFC") in a timely fashion, specifying that such recovery shall be accomplished as described in Attachment G of the Electric Formula Rate Plan ("EFRP"), Exhibit 7, and (ii) the opportunity for ENO to earn incentives based on its performance and implementation/execution of programs on an annual basis; and

WHEREAS, in Resolution No. R-09-483, the Council found that the annual evaluation and cost-effectiveness provisions required by the 2009 AIP will provide the means of vigilant Council oversight of the program to ensure funds are put to their most productive use and not wasted; and

² On October 1, 2015, the business combination of Entergy Gulf States Louisiana, L.L.C. ("Old EGSL") and Entergy Louisiana, LLC ("Old ELL") was completed, through which Old EGSL and Old ELL combined into a single operating company, Entergy Louisiana, LLC.

Evaluation Of Program Year 4

WHEREAS, Resolution Nos. R-14-122 and R-15-15 approved the design and selection of ENO’s proposed Energy Smart programs and established kWh savings goals for the fourth program year (April 2014 – March 2015); and

WHEREAS, on July 10, 2015, pursuant to the 2009 AIP, ENO submitted to the Council its *Energy Smart Annual Report for Program Year 4* (“Program Year 4 Report”), including several recommendations which apply to Program Year 5, a copy of which was provided to all parties in the instant docket; and

WHEREAS, the Council’s Advisors have conducted a review and evaluation of the Program Year 4 Report, including an evaluation of the funding level and changes in funding; and

WHEREAS, the Council and the Council's Advisors strongly support the Energy Smart program and its continued success, however, the Program Year 4 Report has raised certain concerns that must be addressed to ensure the continued vitality of the program; and

WHEREAS, ENO’s Program Year 4 Report presents results for the Energy Smart programs for Program Year 4, which are summarized in the following tables:

Post-Year Evaluation of ENO Energy Smart Programs Year 4 – Legacy - ENO						
Program	Actual kWh	Percent of Goal Achieved	Program Cost	% Customer Incentive Cost	% Non-Incentive Cost	\$/kWh Reduction
Home Perf. w EnergyStar	4,445,224	110%	\$941,431	64%	36%	0.21
ENERGY STAR AC	237,416	61%	\$129,247	46%	54%	0.54
Air Conditioner Tune-up	279,772	29%	\$144,451	31%	69%	0.52
Income Qualified	1,825,848	200%	\$703,871	77%	23%	0.39
Energy Smart New Homes	112,562	63%	\$103,816	20%	80%	0.92
CFL Direct Install	1,205,662	66%	\$327,703	52%	48%	0.27
Small Commercial	2,519,153	94%	\$649,194	47%	53%	0.26
Large Commercial	5,823,379	95%	\$1,374,216	38%	62%	0.24
Sub-Total	16,449,016	96%	\$4,373,929	52%	48%	0.27
NOLA Wise			\$333,333			
Sub-Total Program Cost			\$4,707,262			
LCFC			\$814,226			
Utility Incentive			\$589,867			
Total			\$6,111,355			

Post-Year Evaluation of ENO Energy Smart Programs Year 4 – Legacy - Algiers			
Program	Actual kWh	Percent of Goal Achieved	Incentive Cost
Home Perf. w EnergyStar	1,470,226	372%	\$96,525
ENERGY STAR AC	26,675	38%	\$8170
Air Conditioner Tune-up	3,008	4%	\$455
Income Qualified	115,564	184%	\$6,824
CFL Direct Install	164,915	22%	\$16,954
Small Commercial	215,680	79%	\$26,014
Large Commercial	24,576	6%	\$626
Total Costs	2,020,644	98%	\$155,568

WHEREAS, ENO’s Program Year 4 Report indicates that to achieve the 16,499,016 kWh energy savings for the Legacy-ENO service area in Program Year 4, ENO spent \$4,707,262 on program costs, incurred LCFC of \$814,226, and earned utility incentives of \$589,867, totaling \$6,111,355; and

WHEREAS, ENO’s Program Year 4 Report indicates that the Program Year 4 kWh reduction for the Legacy-ENO service area fell short (96.0%) of the goal approved by the Council, and the Program Year 4 expenditures for customer incentives were less than the approved customer incentives budget (87.0%); and

WHEREAS, ENO’s Program Year 4 Report indicates that for the Energy Smart programs for the Legacy-Algiers service area in Program Year 4, the kWh reduction also fell short of the Council-Approved goal (97.6%), with only 64.1% of customer incentives budget expended; and

WHEREAS, it appears that for each of Program Years 1, 2, 3, and 4 in the Legacy-ENO service area, the majority of kWh reductions from the Small Commercial program were derived from lighting measures³; and

³ The analysis was derived from an ENO workpaper entitled “Evaluation of Energy Smart Program – Advisors Inquiry All 4 Years – Final,” provided to the Council’s Advisors on October 23, 2015.

WHEREAS, in a September 28, 2012 report to the Council, the Advisors noted that lighting measures represented a significant source of the Program Year 1 kWh savings and recommended that other measures be considered to procure further savings; and

WHEREAS, the Advisors question whether the programs would have achieved greater kWh savings if the expenditures were increased to the approved budget level and if the customer incentive funds were allocated to measures that were providing more reduction per dollar of incentive expended; and

WHEREAS, the individual program results reported in the Program Year 4 Report raise the question of whether the focus of program design and planning could have been developed to result in increased kWh savings. Of particular concern, ENO's Program Year 4 Report indicates that: (i) participant incentive funds for the Large Commercial program were depleted merely three weeks after the program year started; (ii) the ENERGY STAR Central Air Conditioning Program only achieved 60.9% of its kWh savings goal, but incentive expenditures were 68.0% of the budgeted amount; and (iii) the same program in Legacy-Algiers only achieved 38.1% of kWh goal but used 60% of the incentives budget; and

WHEREAS, ENO's Program Year 4 Report indicates that the Central A/C Tune-Up program only achieved 28.9% of its kWh goal for Legacy ENO, and that result was only achieved by a significant effort of identifying and convincing multi-family property owners to have an A/C tune-up performed for their tenants. ENO's Program Year 4 Report also indicates that the results for this program were even less robust for Legacy-Algiers, achieving only 3.8% of kWh goal with 3% of budgeted incentives expended; and

WHEREAS, the Advisors note more emphasis is also needed for a solution to addressing the continuing problem of energy efficiency for multifamily dwellings, particularly due to the predominance of multifamily dwellings in New Orleans; and

WHEREAS, certain programs have been particularly successful, in particular, ENO's Program Year 4 Report indicates that the Assisted Home Performance with Energy Star Program ("AHPwES") achieved 200% of goal using only 87% of the budgeted incentives. The majority of AHPwES kWh reductions was from elderly single family homeowners on fixed incomes, and the majority of the work was performed by minority and female owned participating contractors. There were 35 participating contractors in Energy Smart in Program Year 4; and

WHEREAS, the Advisors note that several programs have been redefined by moving measures among previously approved Energy Smart programs, which increases the difficulty of maintaining a consistent basis to evaluate programs among program years; and

WHEREAS, no kWh reduction estimates have been provided in ENO's Program Year 4 Report for the NOLA Wise program, whose activities represent a marketing function for energy efficiency in New Orleans, separate from those conducted by CLEAResult, the Third Party Administrator ("TPA") for Energy Smart. The funding for NOLA Wise in Program Year 4 was \$333,333, and despite several Advisor requests to the Company, no information was provided regarding NOLA Wise program design, spending, cost-effectiveness and performance; and

WHEREAS, ENO's Program Year 4 Report indicates that a separate program related to NOLA Wise, the school kit and education program reported 160,000 kWh in savings for direct-install kits (primarily CFLs and faucet aerators) distributed to school children; and

WHEREAS, in May 2015, Optimal Energy, Inc. prepared an impact evaluation of Energy Smart Program Year 4 for the residential, commercial, and industrial programs for both

Legacy-ENO and Legacy-Algiers. The evaluation included two main components: (i) an analysis of all data in the program tracking databases, and (ii) a detailed engineering review of sampled project files selected from the tracking database. The results of the evaluation indicated that verified kW and kWh reduction calculations were 98% of reported reductions, and that there are good data verification and quality control procedures regarding the use of deemed savings and maintenance of an up-to-date database; and

WHEREAS, the Advisors concur with the Optimal Energy recommendations related to Evaluation, Measurement, and Verification (“EM&V”), namely: (i) investigate the install rate for the direct install School Kit, CFL Giveaway and Online Store programs; (ii) perform on-site verification of measure installations; and (iii) evaluate assumptions in the deemed savings algorithms which have uncertainty or high impact; and

WHEREAS, with the goal of improving the initial estimates used in proposed Energy Smart program designs, Council Resolution No. R-09-483 directed ENO to prepare a set of EM&V metrics for each program, based on the International Performance Measurement & Verification Protocol standards and to provide definitions regarding how such data will be used in the annual evaluation of each program; and

WHEREAS, the Council’s Advisors state that ENO has failed to achieve full compliance with such EM&V directives in Council Resolution No. R-09-483, but the EM&V technical manual for New Orleans required by Resolution R-15-140 should address EM&V for the Energy Smart programs more comprehensively; and

WHEREAS, the Program Year 4 Report provided the following objectives for Program Years 5 and 6: (i) more funding for the Large and Small Commercial Solutions Programs; (ii) higher goals and more funding for the CoolSaver A/C Tune-Up Program; continued high

funding for the AHPwES; and (iii) the addition of a retail buy-down program (savings from manufacturers provided at time of purchase of the specified energy efficiency item); and

WHEREAS, the Advisors have made the following additional recommendations relative to the Program Year 4 Report: (i) subsequent Quarterly Reports should include documentation comparing funding to expenditures and stating the balance of the funding account; (ii) the focus of the small and large commercial classes should be shifted away from lighting and toward non-lighting programs designed to procure significant additional savings; (iii) specific marketing strategies, including NOLA Wise, should be provided in subsequent Quarterly Reports to improve those programs which performed less than the budgeted program goal; and (iv) future Annual Reports should focus resources on specific areas which represent significant savings, such as on-site verification, confirmation of deemed savings assumptions, and improvements in program processes and procedures; and

Energy Smart Funding and Expenditures

WHEREAS, ENO's Program Year 4 Report indicates that for Program Year 4 for the Legacy-ENO service area, only \$2,259,626 or 86.9% was expended of the \$2,598,298 budgeted for Energy Smart Programs, exclusive of LCFC and incentives. To provide for these expenditures, \$2,318,165 was deposited from Rough Production Cost Equalization ("RPCE") funds and \$29,257 was carried over from Program Year 3, totaling \$2,347,422. The difference of the Program Year 4 funds made available (\$2,347,422) and the expenditures (\$2,259,626) was \$87,795, identified as an incentive account balance for Program Year 4. The Annual Report also lists a total incentive balance of \$367,928, which, based upon available information, has not been able to be confirmed by the Advisors; and

WHEREAS, ENO's Program Year 4 Report indicates that for Program Year 4 in Legacy-Algiers, only \$155,568 or 64.1% was expended of the \$242,790 budgeted for Energy

Smart Programs. To provide for these expenditures, \$176,500 was deposited from ratepayers through the Fuel Adjustment Clause (“FAC”) and \$42,467 was carried over from PY3, totaling \$218,967. The difference of the Program Year 4 funds made available (\$218,967) and the expenditures (\$155,568) was \$63,398, identified as an incentive account balance for Program Year 4. The Report also lists a total incentive balance of \$129,689, which, based on available information, has not been able to be confirmed by the Advisors; and

WHEREAS, since the Council desires to thoroughly review ENO’s Energy Smart Programs in terms of their past and anticipated sources and uses of funds, the Advisors conducted a review based on available information of Energy Smart funding and expenditures by program year; and

WHEREAS, the 2009 AIP provided Energy Smart Funding at a level of \$3.1 million per year for the Legacy-ENO service area for each of the periods April 2011 through March 2012 (Program Year 1), April 2012 through March 2013 (Program Year 2), and April 2013 through March 2014 (Program Year 3); and

WHEREAS, Council Resolution No. R-14-122, Council Resolution No. R-14-277, and Council Resolution No. R-15-15 collectively provided for \$6.1 million Energy Smart program funding for the Legacy-ENO service area for the period April 2014 through March 2015 (Program Year 4); and

WHEREAS, Council Resolution No. R-15-140 provided for annual expenditures related to Energy Smart programs in the Legacy-ENO service area of \$6,500,000 for the period April 2015 through March 2016 (Program Year 5) and \$7,800,000 for the period April 2016 through March 2017 (Program Year 6), including LCFC and incentives; and

WHEREAS, the Council intends to continue Energy Smart programs for the total ENO service area beyond Program Year 6; and

WHEREAS, Council Resolution No. R-15-140 states that upon Council-designated funds being fully expended in Energy Smart programs in the Legacy-ENO service, the recovery of further such costs is expected to be through an increase in ENO's FAC rate for the Legacy-ENO service area; and

WHEREAS, it is presently undetermined if the Council will receive further RPCE funds; and

WHEREAS, an August 8, 2013 Agreement in Principle settling Docket No. UD-08-02 (ENO 2012 FRP Evaluation) as adopted in Council Resolution R-13-270 ("2013 AIP") provides for an annual \$1.791 million recovery of the combined LCFC and incentive mechanism from Energy Smart in the Legacy-ENO service area commencing with the first billing cycle in October 2013; and

WHEREAS, the information available to the Advisors to date regarding the Legacy - ENO Energy Smart program costs and funding by program year through the approved budget for Program Year 6 is summarized in the following table, excluding LCFC and incentives; and

Summary of Energy Smart Program Activity (Legacy-ENO service area)						
	Actual Program Results				Budgeted Program Results	
	Program Year 1 -3 ⁴			Program Year 4 ⁵	Program Year 5 -6 ^{6 7}	
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	(Apr `11- Mar `12)	(Apr `12- Mar `13)	(Apr `13- Mar `14)	(Apr `14- Mar `15)	(Apr `15- Mar `16)	(Apr `16- Mar `17)
Expenditures & Funding						
Program Expenditures (incl. EM&V)	\$3,302,809	\$3,523,407	\$3,526,361	\$4,373,929	\$4,774,003	\$5,993,060
NOLA Wise	-	-	\$200,000	\$333,333	\$380,000	\$380,000
Expenditures Sub-Total	\$3,302,809	\$3,523,407	\$3,726,361	\$4,707,262	\$5,154,003	\$6,373,060
Funding - Ratepayers' Base Rates	\$4,960,000	\$3,100,000	\$3,100,000	\$0	\$0	\$0
Funding - RPCE	\$0	\$0	\$200,000	\$6,130,000	\$6,375,000	\$6,375,000
Ending Energy Smart Funding Balance	\$1,657,191	\$1,233,784	\$807,423	\$2,230,161	\$3,451,158	\$3,453,098

WHEREAS, given the information available to Advisors to date, the Advisors estimate that using available sources of funding, including RPCE funds, the annual expenditures provided by ENO, and the approved budgets for Program Years 5 and 6, a \$3,453,098 surplus program funding balance will exist by March 2017, exclusive of LCFC and incentives; and

WHEREAS, the annual \$1.791 million recovery of combined LCFC and incentive costs as provided for in the 2013 AIP have continued since the first billing cycle in October 2013 and are expected to continue until the Council may establish new rates as part of the anticipated Combined Rate Case; and

⁴ Council Resolution R-08-601 approved \$1.86M for funding first year of Energy Smart; Council Resolution R-09-136 approved an annual funding of \$3.1 M for first three years of Energy Smart programs. A total funding of \$11.15M was available for the first three program years of Energy Smart.

⁵ D.C. Circuit ordered ENO to receive RPCE refunds of \$5.09 M out of which \$0.2M was used for funding NOLAWise. A total of \$4.89M was available for funding the first 9 months of Program Year 4. Pursuant to Council Resolution R-15-15, ENO was authorized to utilize \$1.25M of the RPCE funds for funding the remaining quarter of Program Year 4 (Jan 1, 2015 - Mar 31, 2015). A total of \$6.13 M was available for funding Program Year 4.

⁶ In addition to the RPCE funds \$11.85 M balance after Program Year 4, \$0.9 million (re: FERC Docket No. ER08-1056) of RPCE funds were made available, totaling \$12.75M for funding Program Years 5 and 6, not including any interest earned on the escrow balance.

⁷ Program Years 5 and 6 figures assume that expenditures will be equal to the budgeted program expenses and performance will be equal to 100% of program goals.

WHEREAS, the Advisors note that ENO has not submitted an annual filing to true-up the amounts received for LCFC and utility incentives with the annual amounts for LCFC and incentives calculated in accordance with the format specified in AIP 2009 and Resolution -09-136; and

WHEREAS, the Legacy-ENO Energy Smart programs calculated LCFC and incentives and the LCFC and incentives recovered are summarized in the following table; and

ENO Incentives and LCFC Costs Pre 2012 FRP Rate Adjustments						
	Year 1 (Apr '11- Mar '12)	Year 2 (Apr '12- Mar '13)	Year 3 (Apr '13- Mar '14)	Year 4 (Apr '14- Mar '15)	Year 5 (Apr '15- Mar '16)	Year 6 (Apr '16- Mar '17)
Calculated ENO Incentives Earned Based on Actual and Budgeted Results	\$0	\$796,322	\$589,867			
Calculated LCFC Based on Actual and Budgeted Results	\$806,461	\$1,018,335	\$792,396			
Incentive and LCFC cost recovery in Base Rates through FRP adjustments ⁸	\$328,000	\$0	\$1,791,436			
Program Year LCFC and Incentive Over (Under) Recovery of Calculated Costs	(\$478,461)	(\$1,814,657)	\$409,173			
Cumulative LCFC and Incentive Over (Under) Recovery of Calculated Costs Based on Rate Lag	(\$478,461)	(\$2,293,117)	(\$1,883,944)			
ENO Incentives and LCFC Costs Post 2012 FRP Rate Adjustment						
Calculated ENO Incentives Earned Based on Actual and Budgeted Results				\$589,867	\$530,000	\$530,000
Calculated LCFC Based on Actual and Budgeted Results				\$814,226	\$783,734	\$887,882
Incentive and LCFC cost recovery in Base Rates through FRP adjustments ⁹				\$1,791,436	\$1,791,436	\$1,791,436
Program Year LCFC and Incentive Over (Under) Recovery of Calculated Costs				\$387,343	\$477,703	\$373,555
Cumulative LCFC and Incentive Over (Under) Recovery of Calculated Costs Based on Rate Lag				\$387,343	\$865,046	\$1,238,600

WHEREAS, the Council has approved the Energy Smart budget for Program Years 5 and 6 ending March 2017, the limited funding source of RPCE funds has been directed to Energy Smart in Resolution R-14-509, and a revision to base rates as a funding source is not expected until the revised rates effective from the anticipated Combined Rate Case in 2019; and

⁸ Council Resolution R-11-457 provides for \$328,000 in LCFC recovery for Program Year 1. The August 8, 2013 Agreement in Principle settling Docket No. UD-08-02 provides for \$1.791 million in funding for Energy Smart LCFC and incentive cost recovery beginning in October 2013.

⁹ The August 8, 2013 Agreement in Principle settling Docket No. UD-08-02 provides for \$1.791 million in funding for Energy Smart LCFC and incentive cost recovery beginning in October 2013.

Energy Smart Program Years 5 and 6 Revised Budget and Forecasted Goals

WHEREAS, in Council Resolution No. R-15-140, the Council directed ENO to file with the Council a new proposal for individual program budgets for Program Years 5 and 6 in the Legacy-ENO area that complies with both the Council's total approved budgets of \$6,500,000 for Program Year 5 and \$7,800,000 for Program Year 6 and all other changes ordered within that Resolution, including adjusting the proposed kWh goals to correspond to the new individual program budgets; and

WHEREAS, ENO and ELL made a filing on May 11, 2015 submitting a revised budget and corresponding forecasted goals; and

WHEREAS, the following tables summarize the revised proposed budgets, and

Entergy New Orleans, Inc. ("ENO") Year 5:

ENO Residential, C&I Program Portfolio Budgets			
Year 5			
Residential Program	Incentives	Non-incentives	Total
HPwES	\$ 291,512	\$ 219,668	\$ 511,180
Consumer Products	\$ 241,491	\$ 180,015	\$ 421,506
Low Income Audit & Weatherization	\$ 320,349	\$ 364,414	\$ 684,763
NOLA Wise Schoolkits and Education	\$ 70,894	\$ 380,517	\$ 451,411
Residential Heating and Cooling	\$ 248,409	\$ 120,534	\$ 368,943
Small C&I	\$ 455,876	\$ 486,188	\$ 942,064
Large C&I	\$ 894,890	\$ 879,246	\$ 1,774,136
Behavioral Pilot			
Lost Contribution to Fixed Costs ("LCFC")**			\$ 783,734
Utility Incentive at 100%			\$ 530,000
Total Budget			\$ 6,467,737
Council Approved Budget			\$ 6,500,000

*\$314,563 of EM&V is contained in the non-incentive numbers

**LCFC is based upon an adjusted gross margin of .0495

ENO Year 6:

ENO Residential, C&I Program Portfolio Budgets			
Year 6			
Residential Program	Incentives	Non-incentives	Total
HPwES	\$ 346,032	\$ 241,586	\$ 587,618
Consumer Products	\$ 249,353	\$ 197,974	\$ 447,327
Low Income Audit & Weatherization	\$ 361,252	\$ 400,467	\$ 761,719
NOLA Wise Schoolkits and Education	\$ 81,884	\$ 384,903	\$ 466,787
Residential Heating and Cooling	\$ 230,735	\$ 132,555	\$ 363,290
Small C&I	\$ 564,721	\$ 534,105	\$ 1,098,826
Large C&I	\$ 941,341	\$ 966,151	\$ 1,907,492
Behavioral Pilot		\$ 300,000	\$ 300,000
Direct Load Control Pilot		\$ 440,000	\$ 440,000
Lost Contribution to Fixed Costs**			\$ 887,882
Utility Incentive at 100%			\$ 530,000
Total Budget			\$ 7,790,941
Council Approved Budget			\$ 7,800,000

*\$343,802 of EM&V is contained in the non-incentive numbers

**LCFC is based upon an adjusted gross margin of .0495

Entergy Louisiana, LLC ("ELL Algiers") Year 5:

ELL Algiers Residential, C&I Program Portfolio Budgets			
Year 5			
Residential Program	Incentives	Non-incentives	Total
HPwES	\$ 23,806	\$ 20,064	\$ 43,870
Consumer Products	\$ 19,333	\$ 15,579	\$ 34,912
Low Income Audit & Weatherization	\$ 28,321	\$ 30,243	\$ 58,564
NOLA Wise Schoolkits and Education	\$ 6,433	\$ 79,530	\$ 85,963
Residential Heating and Cooling	\$ 22,315	\$ 10,436	\$ 32,751
Small C&I	\$ 41,913	\$ 43,548	\$ 85,461
Large C&I	\$ 75,883	\$ 77,220	\$ 153,103
Behavioral Pilot			
Lost Contribution to Fixed Costs**			\$ 64,355
Utility Incentive at 100%			\$ 49,000
Total Budget			\$ 607,979
Council Approved Budget			\$ 718,265

*\$30,199 of EM&V is contained in the non-incentive numbers

**LCFC is based upon an adjusted gross margin of .0466

ELL Algiers Year 6:

ELL Algiers Residential, C&I Program Portfolio Budgets			
Year 6			
Residential Program	Incentives	Non-incentives	Total
HPwES	\$ 26,795	\$ 20,064	\$ 46,859
Consumer Products	\$ 20,616	\$ 15,579	\$ 36,195
Low Income Audit & Weatherization	\$ 28,139	\$ 30,243	\$ 58,382
NOLA Wise Schoolkits and Education	\$ 6,293	\$ 79,530	\$ 85,823
Residential Heating and Cooling	\$ 17,824	\$ 10,436	\$ 28,260
Small C&I	\$ 43,078	\$ 43,548	\$ 86,626
Large C&I	\$ 75,116	\$ 77,220	\$ 152,336
Behavioral Pilot		\$ -	\$ -
Direct Load Control		\$ -	\$ -
Lost Contribution to Fixed Costs**			\$ 65,193
Utility Incentive at 100%			\$ 49,000
Total Budget			\$ 608,674
Council Approved Budget			\$ 718,265

*\$30,199 of EM&V is contained in the non-incentive numbers

**LCFC is based upon an adjusted gross margin of .0466

WHEREAS, the following table summarizes the revised kWh goals; and

Energy Smart New Orleans

Sector	Year 5				Year 6			
	Implementation	Incentives	EM&V	Total	Implementation	Incentives	EM&V	Total
Residential	\$1,136,061	\$1,172,555	\$99,007	\$2,407,623	\$1,249,168	\$1,269,257	\$106,290	\$2,624,715
C&I	\$1,149,958	\$1,350,766	\$215,476	\$2,716,199	\$1,264,762	\$1,506,061	\$235,504	\$2,996,317
Total	\$2,316,019	\$2,523,421	\$314,583	\$5,154,023	\$2,513,939	\$2,775,318	\$341,802	\$5,633,059

Sector	Year 5			Year 6		
	Participation	Gross Energy Savings (MWh)	Gross Demand Savings (MW)	Participation	Gross Energy Savings (MWh)	Gross Demand Savings (MW)
Residential	9,220	4,576	1.4	9,760	5,127	1.5
C&I	70	11,254	2.2	73	12,810	2.5
Total	9,290	15,833	3.7	9,833	17,937	4.1

Energy Smart Algiers

Sector	Year 5				Year 6			
	Implementation	Incentives	EM&V	Total	Implementation	Incentives	EM&V	Total
Residential	\$145,283	\$100,207	\$10,570	\$256,060	\$145,283	\$99,667	\$10,570	\$255,519
C&I	\$101,139	\$117,796	\$19,629	\$238,564	\$101,139	\$118,194	\$19,629	\$238,962
Total	\$246,422	\$218,003	\$30,199	\$494,624	\$246,422	\$217,861	\$30,199	\$494,481

Sector	Year 5			Year 6		
	Participation	Gross Energy Savings (MWh)	Gross Demand Savings (MW)	Participation	Gross Energy Savings (MWh)	Gross Demand Savings (MW)
Residential	779	397	0.1	782	395	0.1
C&I	6	984	0.2	6	1,004	0.2
Total	785	1,381	0.3	788	1,399	0.3

WHEREAS, the Advisors have reviewed the revised proposed budgets and kWh goals and recommended to the Council that they are reasonable; and

WHEREAS, the Council believes it would be reasonable in the development of subsequent Energy Smart Program Years (Program Year 7 and beyond) for the Company to incorporate in its Energy Smart and IRP filings for evaluation by the Advisors, Intervenors, and the Council the goal of increasing the projected savings from the Energy Smart program by 0.2% per year, until such time as the program generates kWh savings at a rate equal to 2% of annual kWh sales; now therefore;

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NEW ORLEANS

THAT:

1. Regarding the evaluation of Program Year 4, ENO is directed to submit a Compliance Filing within 30 days of the Council adoption of this Resolution which provides all supporting detail and work papers in response to the following concerns.
 - a. Why the expenditures for customer incentives were 87% of the approved customer incentives budget for Legacy-ENO, and 64.1% for Legacy-Algiers, considering that kWh savings were short of goal;
 - b. Why customer incentive funds were not allocated to measures that were providing more kW and kWh reduction per dollar of incentive expended;
 - c. ENO's plan to improve the overall allocation of the approved program year budget to increase the total quantified program benefits of Energy Smart;
 - d. Actions ENO has taken to make increased incentive funds available to Large Commercial participants;
 - e. Actions ENO has taken relative to the individual programs that are under-performing;
 - f. Actions ENO has taken to improve the energy efficiency results for multi-family dwellings with multi-family property owners;
 - g. Supplemental information to enable the Council to assess the cost-effectiveness of the marketing efforts of NOLA Wise;
 - h. A quantification by ENO of the specific incentive and non-incentive costs of the School Kits Program corresponding to the reported 160,000 kWh savings;
 - i. Specific detail outlining the content of the New Orleans Technical Reference Manual on EM&V for demand side management programs, including a set of

EM&V metrics for each measure/program, and a definitive time line for receipt of the initial draft by the Advisors for reviewing;

- j. Detailed support confirming the estimates of kWh savings related to the direct install School Kit, CFL Giveaway, and Online Store Programs;
 - k. Detailed support quantifying the retail buy-down program listed as an objective in the Program Year 4 Report;
 - l. Detailed support quantifying all non-lighting projects that have been targeted for Small and Large Commercial Programs; and
 - m. Quantification and qualification for Program Year 4's total incentive balance of \$367,928 for Legacy-ENO and \$129,689 for Legacy-Algiers, complete with all work-papers.
- 2. ENO is hereby directed to include documentation showing funding and expenditures, funds carryover, and the balance of the Energy Smart funding account in all subsequent Quarterly Reports.
 - 3. ENO is hereby directed to submit a Compliance Filing by December 31, 2015 supporting the calculation of LCFC and incentives for each previous program year, and the recovery of LCFC and incentives associated with each program year, beginning with Program Year 1. Subsequent annual filings for LCFC and incentives pursuant to Resolution R-15-140 will be made on or before June 30 following each program year.
 - 4. The revised individual program budgets and kWh goals for Program Years 5 and 6, as set forth in ENO and ELL's May 11, 2015 filing are hereby approved.

THE FOREGOING RESOLUTION WAS READ IN FULL, THE ROLL WAS CALLED ON THE ADOPTION THEREOF AND RESULTED AS FOLLOWS:

YEAS:

NAYS:

ABSENT:

AND THE RESOLUTION WAS ADOPTED.

EAS Exhibit D
City Council Resolution No. R-17-176

YEAS: Brossett, Cantrell, Gray, Guidry, Head, Ramsey, Williams - 7

NAYS: 0

ABSENT: 0

AND THE MOTION WAS ADOPTED.

NO. R-17-176

CITY HALL: APRIL 6, 2017

BY: COUNCILMEMBERS WILLIAMS, HEAD, GUIDRY, BROSSETT, AND GRAY

IN RE: RESOLUTION REGARDING PROPOSED RULEMAKING TO ESTABLISH
INTEGRATED RESOURCE PLANNING COMPONENTS AND REPORTING
REQUIREMENTS FOR ENTERGY NEW ORLEANS, INC.

DOCKET NO. UD-08-02

RESOLUTION AND ORDER REGARDING THE APPLICATION OF ENTERGY NEW
ORLEANS, INC. FOR APPROVAL OF THE IMPLEMENTATION AND COST RECOVERY
PLAN FOR PROGRAM YEARS 7 THROUGH 9 OF THE
ENERGY SMART PROGRAM

WHEREAS, pursuant to the Constitution of the State of Louisiana and the Home Rule Charter of the City of New Orleans ("Charter"), the Council of the City of New Orleans ("Council") is the governmental body with the power of supervision, regulation, and control over public utilities providing service within the City of New Orleans; and

WHEREAS, pursuant to its powers of supervision, regulation, and control over public utilities, the Council is responsible for fixing and changing rates and charges of public utilities and making all necessary rules and regulations to govern applications for the fixing and changing of rates and charges of public utilities; and

WHEREAS, Entergy New Orleans, Inc. ("ENO"), effective September 1, 2015, is a public utility providing electric and natural gas service to all of New Orleans;¹ and

WHEREAS, ENO is a wholly owned subsidiary of Entergy Corporation ("Entergy");² and
Background

WHEREAS, through the Council's Integrated Resource Plan ("IRP") process, ENO, working with the Council and stakeholders, established Energy Smart programs to promote energy efficiency and conservation measures throughout New Orleans; and

WHEREAS, on April 9, 2015, the Council issued Resolution No. R-15-140 in which the Council directed ENO to issue a request for proposals ("RFP") for a third-party administrator ("TPA") and third-party evaluator ("TPE") for Energy Smart Program Years 7 through 9; and

WHEREAS, on May 19, 2016, the Council issued Resolution No. R-16-186 accepting and approving ENO's RFP for a new TPA to administer the Energy Smart Program in years 7 through 9, which included a schedule for the selection of a TPA as set forth in ENO's filing; and

¹ Prior to September 1, 2015, ENO's electric service area consisted of all of New Orleans except for Algiers ("Legacy-ENO service area"), which, prior to that date was served by Entergy Louisiana, LLC ("Legacy ELL-Algiers service area"). Throughout this document, "Company" refers to ENO after September 1, 2015 and "Companies" refers to ENO and ELL-Algiers, acting jointly prior to September 1, 2015.

² The other four Entergy operating companies are Entergy Arkansas, Inc. ("EAI"), ELL, Entergy Mississippi, Inc. ("EMI"), and Entergy Texas Inc. ("ETI"). The five operating companies together are referred to collectively as the Entergy "Operating Companies."

WHEREAS, the schedule for the selection of a TPA as set forth in ENO's filing and approved by the adoption of Council Resolution No. R-16-186 set the deadline for issuing the RFP on May 23, 2016; and

WHEREAS, ENO was to submit its selection of TPA to the Council for review on September 14, 2016; and

WHEREAS, on December 16, 2016, over three months after the date initially set forth in its timeline, ENO filed its *Report Identifying its Choice of Third Party Administrator for the New Orleans Energy Smart Programs* in Council Utility Docket No. UD-08-02 recommending the selection of Chicago Bridge & Iron Environmental and Infrastructure, Inc. ("CB&I") as the TPA, Accelerated Innovations ("AI") to perform as Behavioral Program Implementer, and ADM Associates ("ADM") as the TPE; and

WHEREAS, the Council in Motion M-17-26 directed ENO to submit to the Council its proposed Energy Smart Program design for Program Years 7 through 9, including the programs to be included, the budgets, and the Council's kWh savings goals and incentives, including increasing kWh savings by 0.2% of kWh sales annually until savings reach 2% of kWh sales annually; and

WHEREAS, in Resolution No. R-17-31 the Council approved the selection of ADM as the TPE and AI as the Behavioral Program Implementer. Resolution No. R-17-31 also approved CB&I as the Energy Smart TPA subject to two conditions: (a) that the Council's incentive and penalty structure for Energy Smart be adhered to and (b) that ENO consult with the Council's Advisors regarding the TPA contract with CB&I to ensure that the contract contains sufficient terms and conditions to mitigate any actual or perceived conflict of interest, and that the Advisors file a report with the Council by April 1, 2017, indicating whether or not they are satisfied that the conditions in the TPA contract provide sufficient mitigation of any actual or perceived conflict of interest; and

WHEREAS, the Council's incentive and penalty structure for Energy Smart referenced in Resolution No. R-17-31 was most recently addressed in Council Resolution No. R-15-140, which set forth the following structure:

a. The Companies shall begin receiving a performance-based incentive when they reach 95% of the kWh goal set by the Council in this Resolution. The incentive shall increase until 120% of the kWh goal is reached and then shall be capped at that level. The incentive will be determined based on the estimated annual kWh level as a percent of the approved kWh goal for each Program Year. The incentive at 100% of goal for Program Years 5 and 6 shall be \$530,000 for ENO and \$49,000 for ELL-Algiers.

b. The Companies shall neither receive an incentive nor be assessed a penalty for achieving a kWh savings level of 60% to 95% of the kWh goal savings goal approved by the Council.

c. If either ENO or ELL-Algiers fails to achieve 60% of the kWh goal, it shall appear before the Council Utility, Cable, Telecommunications and Technology Committee and show cause why it should not be assessed a penalty. If the Council determines the Company in question has failed to show cause the Company shall be assessed a penalty of \$430,000 for ENO and \$40,000 for ELL-Algiers for achieving anything less than 40% of the goal. At levels of achievement between 40% and 60% of goal, the penalty shall be \$250,000-\$430,000 for ENO and \$29,000-\$40,000 for ELL-Algiers; and³

WHEREAS, after a lengthy stakeholder process ENO filed its 2015 Final IRP with the Council on February 1, 2016, having obtained an extension of time from its original October 2015 deadline; and

WHEREAS, after receiving comment from the Intervenors, comment from the public at a Community hearing June 15, 2016, reply comments from ENO and an Advisors Report, the Council,

³ Resolution No. R-15-140 at 62-63.

in Resolution No. R-17-100, accepted ENO's 2015 Final IRP for the purpose of Energy Smart implementation;⁴ and

WHEREAS, in Resolution No. R-17-100, the Council also reminded ENO that it should include, in its Energy Smart filings (for Program Year 7 and beyond), for evaluation by the Advisors, Intervenors, and the Council an alternative goal of increasing the projected savings from the Energy Smart Program by 0.2% per year, until such time as the program generates kWh savings at a rate equal to 2% of annual kWh sales;⁵ and

ENO's Application

WHEREAS, on February 13, 2017, ENO submitted its *Application of Entergy New Orleans, Inc. for Approval of the Implementation and Cost Recovery Plan for Program Years 7 through 9 of the Energy Smart Plan* ("Implementation Plan") in Council Utility Docket No. UD-08-02 ("Application"); and

WHEREAS, in its Application, ENO proposed the following programs:

Residential Programs

- Home Performance with Energy Star ("HPwES") -- ENO explains that this program will achieve long term, significant cost-effective electricity savings through the use of local auditors and contractors who will help residential customers analyze their energy use and identify opportunities to improve efficiency, install low-cost energy-savings measures, and identify and implement more comprehensive home efficiency projects. Examples of this program include weatherization, duct-sealing, smart thermostats, and LED and other direct installs.
- Energy Smart for Multifamily -- ENO explains that this new program targets multifamily property owners (landlords) and managers, as well as apartment and condo renters. The program will address their unique needs, which are often overlooked, through a combination of incentives for both direct install and prescriptive measures, and through property owner and tenant education. The multi-family program will expand to include complexes with less than four units and to target property owners with portfolios of multiple dwellings.
- High Efficiency AC Tune Up Program -- ENO explains that this program will provide residential customers with a comprehensive set of options to lower the energy consumption and cost associated with keeping their homes cool and comfortable in the summer. Customers with functioning air conditioners ("AC") can improve the efficiency of their units with the help of a comprehensive AC Tune-up. The AC Tune-up offerings will be cross-promoted with the other programs, both residential and commercial, and will help create a transformed AC market in New Orleans.
- Residential Lighting and Appliances -- ENO states that the objective of the Lighting and Appliances initiative is to increase awareness and sales of efficient lighting and appliances to ENO's residential population. The program will offer customers the opportunity to purchase, largely through retail locations, a variety of discounted products that are Energy Star qualified or better. The two main program activities include (1) retailer recruitment and merchandizing, and (2) administration of the incentive process (including program tracking).
- Residential Direct Load Control -- ENO explains that this new program is an opt-in load control initiative that will allow ENO to cycle off a participants' home Central Air Conditioning (CAC) condenser during peak events. To minimize discomfort, the enabling technology will allow the air-handler fan to remain powered to circulate throughout the house. The program - which will be delivered by a turn-key implementation contractor - will employ load control technology both

⁴ Resolution No. R-17-100 at 94.

⁵ *Id.* at 95.

radio switches (installed directly on the CAC) and smart thermostats (installed in the customer's home) to control participants' AC units.

- Behavioral Program -- ENO explains that its Behavioral Program will offer customers advice on behavioral changes, which can help lower their electric bills. ENO proposes to extend the pilot phase of this program through the end of Program Year 7, which will allow ENO, stakeholders, and the Council to analyze the results and determine how the program should be deployed as a full program in Program Years 8 and 9. ENO states that the program is designed to motivate customers to make behavioral changes which result in kWh savings.
- Schoolkits Program -- ENO states that the Schoolkit program will continue to target middle school students in the New Orleans area. The CB&I team will work with local schools to enhance energy efficiency lessons and provide students with energy efficiency kits that they will use in their homes.
- Low Income Program - ENO explains that this program is designed to offer qualifying customer's free energy efficiency projects ranging from direct install measures including LEDs and water savings measures to smart thermostats and comprehensive envelope measures. CB&I will work with ENO to identify and qualify customers for participation.

Commercial Programs

- Large Commercial & Industrial Solutions -- ENO states that the primary objective of this program is to provide a solution for larger (greater than 100 kW demand) nonresidential customers interested in energy efficiency through a prescriptive or custom approach. The Large Commercial & Industrial program is designed to generate significant energy savings, as well as a longer-term market penetration by nurturing delivery channels, such as design professionals, distributors, installation contractors, and Energy Service Companies ("ESCOs").
- Small Business - ENO states that this program will provide small businesses and other qualified non-residential customers the opportunity to achieve electricity savings through the use of the program. The program will help small business customers analyze facility energy use and identify Energy Efficiency ("EE") improvement projects.
- Publicly Funded Institutions - ENO states that this program is a new public sector program that is targeted to local publicly funded institutions. The program should assist end-use customers in overcoming barriers that are specific to publicly funded groups. Through hands-on expertise and consulting, the program benchmarks the partners' energy use and identifies a roadmap to success for the partners.

WHEREAS, in its Application, ENO proposed for Council selection three future Energy Smart Scenarios with different savings goal and levels of funding: (1) Scenario 1 maintains a slightly higher level of funding as approved for Program Year 6 for each of Program Years 7 through 9; (2) Scenario 2 increases the funding levels needed to meet the goal referenced by the Council in Resolution No. R-15-599 of an annual increase in the kWh savings goal equal to 0.2% of annual kWh sales until such time as the program generates kWh savings at a rate equal to 2% of annual kWh sales; and (3) Scenario 3 utilizes the funding levels similar to levels of increasing Demand Side Management ("DSM") over the three years included in the 2015 Final IRP. The potential Program Year 7 through 9 funding scenarios and kWh savings proposed by ENO are as follows:

ENO Legacy					
	Program Costs	Lost Contributions to Fixed Costs	Utility Performance Incentive (12.5% of program costs)	Total	Funding Shortfall
Scenario 1	\$ 19,847,192	\$ 3,350,815	\$ 2,480,899	\$25,678,906	\$ 13,710,760
Scenario 2	\$ 33,699,431	\$ 5,824,522	\$ 4,212,429	\$43,736,381	\$ 31,768,235
Scenario 3	\$ 25,390,334	\$ 4,097,447	\$ 3,173,792	\$32,661,573	\$ 20,693,427

* Funding shortfall is based on an estimated \$11,968,146 available in Energy Smart funding at the end of Program Year 6.

ENO Algiers					
	Program Costs	Lost Contributions to Fixed Costs	Utility Performance Incentive (12.5% of program costs)	Total	Funding Shortfall
Scenario 1	\$ 2,087,516	\$ 372,261	\$ 260,940	\$ 2,720,717	\$ 2,720,717
Scenario 2	\$ 2,867,089	\$ 467,962	\$ 358,386	\$ 3,693,437	\$ 3,693,437
Scenario 3	\$ 2,535,737	\$ 415,788	\$ 316,967	\$ 3,268,492	\$ 3,268,492

WHEREAS, in its Application, ENO requested that the Council issue a Resolution:

1. Approving ENO's proposal for the implementation of the DSM programs as set forth in the Application through March 31, 2020;
2. Identifying the Council's desired level of funding for Program Years 7, 8, and 9 and the associated kWh savings recommended for the program;
3. Approving a cost-recovery mechanism;
4. Approving the continued usage of the current lost contribution to fixed costs mechanism;
5. Approving the recommended performance incentives mechanism along with the recommended calculation for the amount of incentive provided for reaching 100% of goal;
6. Approving the continuation of a Behavioral Pilot during Program Year 7 with the intention of evaluating, at the end of Program Year 7, how the program will be implemented in Program Years 8 and 9; and
7. Granting all other general and equitable relief that the law and the nature of this proceeding may permit or require; and

Stakeholder Comments

Alliance for Affordable Energy

WHEREAS, the Alliance for Affordable Energy ("AAE") submitted a response to the Application on March 10, 2017, arguing that the Council should move forward and approve the Energy Smart plan that corresponds to the Council's 2% targets, described in ENO's application as Scenario 2; and WHEREAS, the AAE argues that (1) the benefits of implementing the Council's targets clearly outweigh the costs and yield superior value over the lower budget levels presented by ENO; (2) energy efficiency targets are empirically proven to produce better results for customer and the Council's 2% energy savings goals are achievable; and (3) greater demand side management investments reduce risk and aids Council decision-making on new supply; and

WHEREAS, AAE's response also recommended that the Council contemplate setting goals for demand savings in order to better target particular capacity needs. AAE states that while additional direction at this time would be useful for tracking and to develop expectations, they recommend that Year 7 of the program not link initial demand reduction goals to penalties or incentives so that appropriate expectations can be set; and

WHEREAS, AAE argues that if Lost Contributions to Fixed Costs ("LCFC") is treated as a default payment, based on an assumption of losses "expected to occur," whether the utility has met its revenue requirement or not, and is functionally separate from the revenues collected, the mechanism is being used as an additional profit driver and customers are being double-charged. The AAE argues that decoupling would be a preferable solution to this issue, but since it is not yet in place, they suggest the Council reconsider the LCFC payments mechanism and require a true-up based on whether the utility has met its revenue requirement through regular energy sales, and if not, LCFC payments should be limited to the amount necessary to reach the minimum Council authorized revenue requirement level; and

WHEREAS, the AAE also disputes the inclusion of LCFC as part of the "total costs" of the Energy Smart Program, arguing that the utility's fixed costs exist regardless of whether there is an energy efficiency program, is not caused by the existence of the energy efficiency program, and therefore is not itself a cost of the Energy Smart Program; and

WHEREAS, AAE also argues that ENO has not provided sufficient justification for its requested incentive of 12.5% of program costs, and notes that in prior years, ENO has earned 7-8% and that the national median for performance incentives, as reported by ACEEE, is 8% of program spending; and

WHEREAS, AAE notes that Performance Incentives and LCFC represent a combined 29.5% of the total budgets presented, and argues that these charges are excessive and incompatible with basic regulatory obligations for the utility to provide service at the lowest practical cost; and

WHEREAS, AAE argues that the Application is lacking tables that clearly demonstrate the benefits that accrue to customers and that their analysis demonstrates that in all three budget scenarios, the benefits to customers (using net present value for lifetime DSM savings) outweigh the costs of the programs, and that the greatest level of customer benefits is achieved under Scenario 2; and

WHEREAS, AAE observes and applauds additions that have been made to the Energy Smart Program offerings, but states that one notable absence that is hard to understand is why there is no program for residential Heating, Ventilation, and Air Conditioning ("HVAC") replacement and recommends that such a program be added to Energy Smart for Program Years 7-9; and

WHEREAS, AAE argues that the Evaluation, Measurement, and Verification ("EM&V") is an important function not only enabling accurate quantification of actual achieved DSM program-related energy savings used for performance incentive and compensation calculations, but also informing program design and policy making. AAE alleges that EM&V for Energy Smart has fallen far short of these objectives and the level of control ENO holds over the EM&V budget, hiring, scope and activities reveals not only a serious conflict of interest, but also deprives the Council of critical resources and capacity to oversee and improve Energy Smart at the policy level; and

WHEREAS, AAE requests that the Council reserve funds, hiring authority, and responsibility for oversight of at least a significant portion of the EM&V budget and functions here forward; and

WHEREAS, the Council notes that it has already reviewed, evaluated and approved the selection of ADM as the independent TPE for Program Years 7 through 9 in Resolution No. R-17-31; and

WHEREAS, AAE argues that the analysis of proposed programs in future Energy Smart filings should include the Utility's Cost Test and complete documentation for all cost/benefit calculations that demonstrate to customers that the benefits outweigh the costs; and

WHEREAS, AAE recommends that the Council add a residential HVAC replacement program to Energy Smart years 7 through 9 within the existing budget framework; and

WHEREAS, AAE supports a formal convening of stakeholders for continued program design and IRP planning around DSM levels; and

WHEREAS, on March 27, 2017, ENO filed its *Entergy New Orleans, Inc. Reply to Filings of PosiGen and the Alliance for Affordable Energy and Opposition to Proposed DSM Pilot Program* ("ENO's Response"), and

WHEREAS, in its Response, ENO argues that AAE's statements concerning EAI are misleading and incomplete, and that the third party hired to analyze the potential for DSM in Arkansas found that a target of 2% of total sales was not achievable, resulting in the Arkansas Public Service Commission setting a "stretch" savings target of 0.9% of total sales; and

WHEREAS, ENO argues that some of the key elements to EAI's success include stable rules, fair costs recovery inclusive of program costs, LCFC and performance incentives, and a transparent rider with a sustainable funding source subject to annual true-ups. ENO states it supports such an approach; and

WHEREAS, ENO argues that AAE's selective citations concerning performance incentives portray an inaccurate and incomplete picture. ENO argues that ENO's average level of performance incentive for Program Years 3 through 5 was 11.6% of program costs, and that the ACEEE study cited by AAE as demonstrating a national average of 8% considered only 14 jurisdictions; and

WHEREAS, ENO argues that AAE ignores the ACEEE's findings that indicate that stable and fair cost recovery mechanisms are necessary for the continued success of Energy Smart; and

WHEREAS, ENO argues that the 12.5% incentive percentage it proposed would (i) retain the current mechanism used by the Advisors to calculate performance incentives while explicitly connecting the target incentive amount for each program year to the program costs incurred for that year; and (ii) set the target incentive percentage within the range of what ENO has received in the past while also recognizing the significant effort it will take to achieve higher savings goals; and

WHEREAS, ENO argues that AAE's statement that the Implementation Plan contains no residential A/C program is inaccurate and that it does offer a residential HVAC replacement through the AC Tune-up Program; and

WHEREAS, ENO argues that ENO neither had nor exercised control over the EM&V budget or scope, as alleged by AAE, because for Program Years 5 and 6, the Council set the EM&V budget at 6.5% of program costs and ENO issued an RFP which included the Council's requests in the scope; and

WHEREAS, ENO argues that ADM has conducted extensive EM&V, producing a nearly 600-page evaluation report and an objective and critical analysis of the program. ENO argues that ADM has been working on the New-Orleans-specific Technical Resource Manual ("TRM"), which is taking time to develop, being based upon primary data collection values rather than being built off of hypotheticals, citations, and simulations like the Arkansas TRM; and

PosiGen of Louisiana, LLC

WHEREAS, on March 10, 2017, PosiGen of Louisiana, LLC ("PosiGen") also submitted comments on the Application; and

WHEREAS, PosiGen encourages and supports the adoption of Scenario 2 by the Council and offers feedback and minor suggestions on how to increase the efficiency of the 2% plan; and

WHEREAS, PosiGen asserts that with the proper financial support, the comprehensive capture of kWh savings, removal of unnecessary programmatic barriers and creative programming, the 2% goal might be attained much faster and with even more ancillary benefits. PosiGen explains that the Energy Smart Program, in its current iteration, employs limitations on the number of rebate applications any given energy efficiency contractor can submit, limiting the number to 10 applications per month, in order to prevent any one contractor from harvesting all or the majority of available incentives. PosiGen argues that this limitation prevents all of PosiGen's customers who want energy efficiency from getting the incentives. PosiGen argues that because it has borne the costs of marketing and acquiring its customers, which it claims, reduces the administrative costs of the Energy Smart Program, ENO therefore has not paid the full costs of the Energy Smart Program or for the grid benefits that have resulted from PosiGen's deployment of energy efficiency retrofits. PosiGen notes that in Scenario 2, the Home Performance with Energy Star ("HES") rebates do not cover the full cost of those upgrades; and

WHEREAS, the Council observes that incentives are intended to facilitate investment that is in the best interest of the City that might otherwise not take place, incentives are not meant to compensate parties for investments that are already being made in the absence of incentives; and

WHEREAS, PosiGen argues that ENO should not receive 30% of program costs in the form of LCFC and a 12.5% incentive. PosiGen argues that ENO has been overearning and therefore has no reason for a mechanism to make them whole. PosiGen argues that the proposed 12.5% incentive is offered with no justification, is a 60% increase from current levels and rewards ENO for the successful reduction in kWhs despite consistently underfunding the program, being resistant to implementing goals directed by the Council, failing to capture all of the kWh savings harvested by the New Orleans energy efficiency contractor base, and not appropriately compensating customers and contractors for kWh savings; and

WHEREAS, PosiGen argues that if ENO should request increased funding and the Council were to oblige, multiple positive benefits would result, including: (1) more households would be able to participate in the program, leading to (2) greater kWh energy savings and (3) greater data collection to better ascertain and measure what the cost per kWh savings actually costs and how many kWhs are saved versus energy efficiency; and (4) allowing ENO to more appropriately track their possible LCFC and merit performance-based incentives for managing the available energy efficiency proposal; and

WHEREAS, PosiGen suggests combining the budgets for the HES and HES Income Eligible ("IE")⁶ programs because of: (1) New Orleans' energy poverty rate, energy burden for African American Households, and Louisiana's high energy consumption per customer, all of which mean New Orleans ratepayers would benefit significantly from energy efficiency; (2) combining the programs would remove an additional barrier to accessing and participating in clean energy programs by removing the income verification requirement, which would enable more of PosiGen's low-income customers to participate; and (3) combining the programs in EAI's territory resulted in unprecedented DSM adoption and the highest kWh savings in the South; and

WHEREAS, PosiGen claims that many of the kWh savings and upgrades performed in New Orleans are not captured by ENO or the City because of underfunding, over-subscription, program participation limitations and lack of access to financing or funds to cover the total costs for a DSM upgrade. PosiGen identifies the following benefits of capturing all or most of the kWh savings in New Orleans: (1) measuring, capturing, and managing all or most of the kWh savings in New

⁶ The HES and HES IE discussed here are the Home Performance with Energy Star and Low Income programs in the Implementation Plan.

Orleans reduces overall demand for energy which can defer the need for investment in energy infrastructure; (2) the cost of measuring, capturing, and managing all, or most, of the kWh savings in the City is miniscule in comparison to capital intensive infrastructure investments; and (3) by capturing the kWh savings, ENO and the Council can defer expensive investments to allow for other DSM, distributed energy resources, and other technologies to develop; and

WHEREAS, PosiGen argues that removing limitations on contractor participation will correct the skewed HES program numbers to accurately represent how much each kWh of savings costs and capture all kWh savings; and

WHEREAS, PosiGen also proposes a DSM pilot program with a budget of \$10,000,000. PosiGen proposes that for every HES upgrade that achieves at least a 2,500 annual modeled kWh savings, assuming a 10-year life savings equal to \$0.01/kWh, that the household/contractor shall be eligible for a \$2,500 rebate. Should the modeled annual kWh savings exceed 3000 kWh, PosiGen proposes that the respective household/contractor be eligible for a 30% performance bonus on the original 2,500 kWh modeled savings. PosiGen also proposes that in addition to this rebate and possible incentive, there should be a Cool Saver Program Incentive commensurate with the Arkansas Cool Saver 2015 rebate program and that for every household that signs up for Direct Load Control, the household/contractor should be eligible for an up-front rebate of \$100 and, the household should be eligible for an annual payment of \$50.00 per year for participation in the program. Finally, PosiGen proposes that the contractors be required to submit all modeled household savings for the HES upgrade, as well as any other ancillary services including, but not limited to, low flow water aerators, lighting upgrades, etc., and that at no time should any household receive more than \$4,000 for any comprehensive upgrade as part of the pilot; and

WHEREAS, while PosiGen proposes to increase Energy Smart budgets, it proposes no specific budget increase to the Council and has provided no supporting analysis, such as a cost-benefit analysis or ratepayer bill impact analysis of any such increase for the Council to consider. With neither a specific alternative budget proposal to consider nor the necessary data to support the justness and reasonableness of any proposed increase in Energy Smart budget funding, the Council declines, at this time, to increase the Energy Smart Program budgets beyond that which is proposed by ENO in its Application; and

WHEREAS, in its Response, ENO argues that the Council should reject PosiGen's proposal for a DSM Pilot Program because it fails to provide the minimum amount of information the Council requires for review of pilot programs; and

WHEREAS, ENO states that it has grave concerns that PosiGen is attempting to both establish policy and derive profits from working as a contractor in the Energy Smart program at the same time, which would allow PosiGen to gain a competitive advantage over other contractors in the program; and

WHEREAS, ENO argues that PosiGen's criticism of the inclusion of three Scenarios is unfounded because the Council's instructions have been to include a 2% budget "for evaluation" along with other scenarios; and

WHEREAS, ENO states that it did not make a recommendation for one Scenario over the other, but it notes that ICF International, Inc., found that the maximum achievable potential for cost-effective DSM in New Orleans is 0.9% of annual sales and that to reach the mandatory 0.2% target for Program Years 8 and 9 for Scenario 2 CB&I and ENO had to make certain assumptions concerning the market for Behavioral program participants and the availability and desire for large commercial participation that may not prove to be achievable; and

WHEREAS, ENO argues that PosiGen's comments concerning LCFC evidence a fundamental misunderstanding, or willful distortion of, regulatory rate issues related to DSM programs. ENO argues that LCFC represents an aspect of cost recovery for the utility associated with implementing energy efficiency and DSM programs and that taking away recovery now would border on retroactive ratemaking and harm the utility for having implemented Council-approved energy efficiency measures; and

WHEREAS, ENO argues that PosiGen makes a baseless assertion related to ENO's share of program costs, apparently arguing that PosiGen's own sales and marketing efforts should be subsidized by ENO's customers' and

WHEREAS, ENO disputes PosiGen's assertion that much of the work achieved in the Energy Smart residential HES program is a direct result of PosiGen's efforts, but the benefits have been split. ENO argues that this is incorrect, because the kWh savings achieved by customers outside of the Energy Smart program are excluded from program results and evaluation; and

WHEREAS, ENO argues that PosiGen's concern regarding limitations on rebate application submissions appear to be motivated by PosiGen's self-interest. ENO states that program requirements and contractor rebate limitations are aimed at achieving many goals, all for the benefit of the program, including (i) spreading the work throughout the program year so a program does not run out of funding and suffer a lull in activity which could destroy momentum; (ii) allowing a larger group of contractors to participate; and (iii) increasing the ability to track remaining available funding. ENO disputes PosiGen's argument that limiting the amount of rebate applications precludes some of PosiGen's customers who perform energy efficiency projects from receiving rebates. ENO notes that in Program Years 5 and 6 all of the funding for the HPwES program was used, and that had there been no contractor rebate limitation, it is possible PosiGen would have claimed a greater percentage of program funding for its customers, and as a matter of consequence, squeezed out other contractors; and

WHEREAS, ENO argues that PosiGen's suggestion to combine the Home Performance with Energy Star and Low Income Programs is flawed because it would allow customers who would not qualify for low income programs to access funding traditionally reserved for low income customers. ENO states that the implementation costs in the low income program are higher because non-incentive costs associated with the Low Income Program account for a larger percentage of total program costs due to higher program costs related to coordination with local agencies to market and identify customers, increased enrollment costs for income eligibility, increased QA/QC of completed projects, and incorporation of tools and equipment for low income project installations; and

WHEREAS, ENO disputes PosiGen's claim that "New Orleans ratepayers simply consume substantially more electricity per home than almost anywhere else in the country . . . " ENO points out that, according to the U.S. Department of Energy, Energy Information Administration data for 2016, ENO residential customers consumed 1,045 kWh on average, which is among the lowest in the region compared to the regional average of 1,128 kWh per month. More importantly, ENO argues, ENO's average electric bills are among the lowest in the region, ranking 5th lowest among 30 electric utilities in the region; and

WHEREAS, the Council has set forth the criteria that any application for a pilot program related to the IRP or Energy Smart Program must meet. In Resolution No. R-15-140, the Council ruled that prior to the implementation of any new pilot program for the ENO Legacy Energy Smart

Program, the Companies must file an application with the Council for review and approval that includes, at a minimum:⁷

- a. Incentive costs, non-incentive costs and kWh savings (in some cases where the supporting calculations require, individual measures should be shown within a program) for each individual pilot program proposed;
- b. EM&V spending at 6.5%;
- c. LCFC including the adjusted gross margin (“AGM”) calculation;
- d. The composite of the pilot program costs and other proposed program costs, including NOLA Wise, should be shown to equal the annual total spending levels of \$6.5 million for Program Year 5 and \$7.8 million for Program Year 6 (for ENO Legacy) as approved in Resolution No. R-14-509; and
- e. A program description that includes the objective of the pilot, including results, as appropriate, that will provide data to determine cost-effectiveness should a full implementation of the pilot program be considered; and

WHEREAS, in addition, in Resolution No. R-16-106, the Council noted the Advisors’ recommendations that any proposed pilot programs should include (1) the number of customers to be included in order to generate adequate data for evaluation, which customer classes should participate, whether participation is voluntary or mandatory; (2) what data is to be collected and how it will be collected; (3) the duration of the proposed pilot program; (4) draft tariff provisions to implement such a pilot program; and (5) the anticipated costs and rate impact of such a pilot program; and

WHEREAS, the Council finds that PosiGen has failed to provide in its proposal (1) incentive costs, non-incentive costs and kWh savings for each individual pilot program proposed; (2) EM&V spending at 6.5%; (3) LCFC including the AGM calculation; (4) explanation of whether the program fits within the proposed budget for Energy Smart or would be additive thereto; (5) a program description that includes the objective of the pilot, including results, as appropriate, that will provide data to determine cost-effectiveness should a full implementation of the pilot program be considered; (6) the number of customers to be included in order to generate adequate data for evaluation, which customer classes should participate, whether participation is voluntary or mandatory; (7) what data is to be collected and how it will be collected; (8) the duration of the proposed pilot program; (9) draft tariff provisions to implement such a pilot program; or (10) the anticipated rate impact of such a pilot program. The Council therefore concludes that PosiGen’s pilot program proposal has not met the Council’s requirements for a pilot program and should be denied; and

WHEREAS, the Council also notes that the \$10,000,000 budget for the proposed pilot program is comparable to the annual budget for the entire Energy Smart program, and the Council would need to be able to evaluate an extensive level of detailed analysis to support such an expenditure; and

Building Science Innovators

WHEREAS, On February 3, 2017, Building Science Innovators, LLC (“BSI”) filed a *Motion by Building Science Innovators, LLC for to Rescind “Resolution of All Issues” Filed on January 17 Within the 2015 Entergy New Orleans (“ENO”) Integrated Resource Plan*; and

WHEREAS, BSI moved to rescind its January 17, 2017 Motion in Docket No. UD-08-02; and
Advisor Observations and Conclusions

⁷ *Id.*

WHEREAS, on March 14, 2017, the Advisors submitted their *Observations & Conclusions for Council Consideration of ENO's February 13, 2017 Filing for Approval of Energy Smart Program Years 7-9* ("Advisors' Observations"); and

WHEREAS, the Advisors reported there are inconsistencies in the metric of DSM measures' costs and corresponding kWh reduction for various DSM measures of the proposed programs when compared to similar DSM measures in the DSM Preferred Portfolio of the 2015 Final IRP, as well as inconsistencies in ENO's Scenario budget analysis and supporting models. These inconsistencies will require data clarification by ENO and CB&I before the Advisors could recommend that the Council approve the details of the program budget as proposed; and

WHEREAS, the Advisors stated that Scenario 2 is consistent with Resolution No. R-15-599 wherein the Council referenced an increase in the annual kWh savings goal of 0.2% per year.⁸ Accordingly, the Advisors recommend the Council adopt Scenario 2 with an appropriate budget as the Scenario that is consistent with Resolution No. R-15-599; and

WHEREAS, the Advisors recommended that ratepayer funding requirements for Scenario 2 should be allocated to each customer class based upon the cost of the Energy Smart programs or program expenditures projected for each customer class, as determined within the final approved Energy Smart detailed program design so as to reflect the regulatory principle of the benefits and burdens test. Within each customer class, the additional ratepayer funding would be recovered on the basis of the non-fuel (base rate) portion of the monthly bill; and

WHEREAS, the Advisors concluded that LCFC could be replaced by a three-year pilot decoupling mechanism, or a Formula Rate Plan ("FRP") as part of the Council's decision pursuant to the combined rate case, which is anticipated to be filed in the first quarter of 2018; and

WHEREAS, the Advisors recommended the current performance-based utility incentive amounts and incentive structure previously approved by the Council in Resolution No. R-15-140 for achieving 100% of the kWh savings goal for ENO Legacy and ENO Algiers should be maintained, as directed by the Council in Resolution No. R-17-31, and ENO's proposed incentive structure rejected as not in conformance with the Council's previously approved incentive structure; and

WHEREAS, the Advisors concluded the success of the Energy Smart Implementation Plan for Program Years 7 through 9 is partly dependent upon the non-ENO data provided by AI in estimating the impact that the Behavioral Pilot Program will have on attaining the savings goal. As the initial 12 months of ENO data from the Behavioral Pilot Program has yet to be fully collected and analyzed to determine the realized impact on the total projected kWh savings, other program designs may have to be revised if the estimated kWh savings from the Behavioral Pilot Program fall short of the initial kWh savings estimates proposed in the Implementation Plan; and

WHEREAS, the Advisors noted the initial 12 months of data from the Behavioral Pilot Program should be evaluated expeditiously to determine if the proposed individual program design and kWh reductions need revision to accommodate the Energy Smart savings goal, and if the Behavioral Pilot Program should become a fully implemented program; and

⁸ The Council stated in Resolution No. R-15-599: "...the Council believes it would be reasonable in the development of subsequent Energy Smart Program Years (Program Year 7 and beyond) for the Company to incorporate in its Energy Smart and IRP filings for evaluation by the Advisors, Intervenors, and the Council the goal of increasing the projected savings from the Energy Smart program by 0.2% per year, until such time as the program generates kWh savings at a rate equal to 2% of annual kWh sales".

WHEREAS, the Advisors also recommended deferring the start of Program Year 7 to January 1, 2018, for the following reasons: (1) the time needed for a careful evaluation of the proposed program structure, kWh savings targets, and budgets, noting the significant time that was required for such evaluation of ENO proposals for Program Years 4, 5, and 6 before the Council's final approval; (2) the transition from the incumbent TPA to a new TPA requires a carefully executed timeline to reduce risk and ensure a successful transition – the new TPA proposed a four-stage transition of up to 26 weeks; (3) the Residential Direct Load Control Pilot, Behavioral Pilot, and Algiers Smart Thermostat Pilot programs were initiated in the second half of 2016 and will require additional time before Program Year 7 to assess full implementation and their impact on the proposed Energy Smart savings goal; (4) additional ratepayer funding is estimated to be required in calendar year 2018, and the funding requirements by customer class and the ratepayer bill impacts will need to be determined; and (5) Energy Smart Program years should coincide with calendar years, as was originally intended for Program Year 1, to enable better verification of source data and to be more consistent with the test years anticipated for the combined rate case, FRPs, and a decoupling rate mechanism that may be approved by the Council; and

WHEREAS, in a subsequent telephone conference with the Advisors and representatives of the Company, ENO personnel indicated that both the Company and its TPA were prepared to commence Program Year 7 upon final Council approval in April 2017; and

WHEREAS, the Council expects that the programs, as proposed in the Implementation Plan, should commence within seven days of the adoption of this Resolution and continue through December 31, 2017; and

WHEREAS, Program Year 7 would commence, upon final Council approval, in April 2017, and end on December 31, 2017, extending for a period of nine months, instead of 12 months. The Program Year 7 budget and savings goal should be adjusted accordingly; and

WHEREAS, although ENO and the TPA have expressed their readiness to implement the programs proposed in the Application upon final Council approval in April 2017, the shortened timetable resulting from the three-month delay in TPA selection by ENO causes Council concern regarding adequate time for a comprehensive evaluation of the proposed Energy Smart Implementation Plan, as raised in the comments expressing concerns of the Stakeholders and Advisors regarding the current proposed Implementation Plan; and

WHEREAS, the Council finds that to ensure a successful implementation of the new programs with a new TPA, the aforementioned concerns of the Stakeholders and Advisors, as expressed in their filed comments, should be addressed concurrently through a series of three technical conferences with the parties; and

WHEREAS, the Council finds that the series of three technical conferences attended by ENO, the TPA, the TPE, the Stakeholders and the Advisors, the first of which should convene within 30 days of the adoption of this Resolution should include, but not be limited to the following concerns: (1) resolve the inconsistencies in DSM measure level costs and savings of the proposed program structure when compared to the DSM Portfolio of the 2015 Final IRP; (2) resolve the inconsistencies in the Scenario budget analysis and supporting models of the Application; (3) assess whether the Residential Direct Load Control Pilot, Behavioral Pilot and Algiers Smart Thermostat Pilot implemented in 2016 should be fully implemented with the programs proposed in the Application; (4) evaluate Stakeholders proposed changes to the programs listed in the Application including, but not limited to, a residential HVAC replacement program, and combining the home performance with Energy Star Program budget with the low

income program budget; (5) determine the impact of all program design changes on the proposed budget framework; (6) ensure that the estimated kWh savings derived from the evaluation of the pilot programs and any Energy Smart Program design changes meet the kWh savings goal approved by the Council in this Resolution; (7) assess the status, adequacy and specific use of the New Orleans Technical Reference Manual as a critical resource in supporting the design and performance evaluation of the measures and programs proposed for Energy Smart; (8) evaluate the feasibility of an additional program year goal related to peak kW reduction; and (9) determine the appropriate individual program redesign to adjust the Program Year 7 budget and savings goal to a nine-month basis; and

WHEREAS, the Council expects the two additional technical conferences should be conducted expeditiously during the subsequent months as required to resolve any remaining concerns and achieve a general consensus among the parties prior to August 1, 2017; and

WHEREAS, no later than October 1, 2017, the Council requires ENO to file with the Council a Supplemental and Amended Implementation Plan for Program Years 8 and 9; and

WHEREAS, the Council expects that such Supplemental and Amended Implementation Plan should contain: (1) new program definitions resulting from any changes in program design addressing any consensus reached in the technical conferences regarding the Stakeholders' and Advisors' Comments; (2) the results of modifications that resolve the inconsistencies between the Implementation Plan's DSM measure level costs and savings and those in the DSM Portfolio of the 2015 Final IRP; (3) the results of modifications that resolve the inconsistencies between the Scenario budget analysis and supporting models of the Application; (4) recommendation on the level of implementation of the Residential Direct Load Control Pilot, Behavioral Pilot, and Algiers Smart Thermostat Pilot into new programs based on a complete assessment of collected data; (5) an updated total budget that considers any program design changes while maintaining the kWh savings goal approved in this Resolution for Program Years 8 and 9 and the nine months (April 2017 to December 2017) of Program Year 7; (6) any consensus of all parties related to the current status, adequacy and specific use of the New Orleans Technical Reference Manual as a critical resource in supporting the design and performance evaluation of all Energy Smart measures and programs, and an estimated time of completion; (7) a recommendation based on any consensus of all parties for incorporating an additional program year goal relating to peak kW reduction into the evaluation of all Energy Smart measures and programs for future program years and program year filings; (8) an analysis that includes the Utility's Cost Test and complete documentation for all cost/benefit calculations that demonstrates to customers that the benefits outweigh the costs; and (9) the specific customer class allocation and bill impact cost recovery mechanism related to any incremental ratepayer funding that may be required for Program Years 8 and 9; and

WHEREAS, the Council finds that the analysis of proposed programs in future Energy Smart filings should include the Utility's Cost Test and complete documentation for all cost/benefit calculations that demonstrate to customers that the benefits outweigh the costs; and

WHEREAS, the Council accepts the Advisors' recommendation that the Energy Smart Program years should coincide with calendar years to enable better verification of source data and to be more consistent with the test years anticipated for future rate applications and financial reporting periods; and

WHEREAS, the Council finds that Program Year 8 should coincide with calendar year 2018, with Program Year 8 program implementation beginning January 1, 2018 subject to Council action on the Supplemental and Amended Implementation Filing for Program Years 8 and 9; and

WHEREAS, the Council finds that the \$11.8 million balance of Energy Smart funds for ENO Legacy as of April 1, 2017, as reported by ENO, should be used for continued funding of the ENO Legacy Energy Smart programs until Council action on incremental ratepayer funding that may be required in the latter portion of calendar year 2018, for Program Years 8 and 9. In the interim, and until the time additional ratepayer funding is required for ENO Legacy customers and at which time a universal funding mechanism is approved by the Council for both, the Algiers Energy Smart programs shall continue to be funded through the Algiers Fuel Adjustment Clause; and

Interim Program Year 7 Budget

WHEREAS, the Advisors have analyzed the total program budgets and achieved kWh savings of Energy Smart Program Years 1 through 5, as well as the EAI Energy Efficiency Potential Study, to develop relevant sources to compare ENO's Program Year 7 costs with corresponding amounts of kWh reduction (savings) for a program year. Specifically, the Advisors examined the actual total program costs expended and actual total kWh reductions within each of the Program Years 1 through 5 and have computed a credible metric of program costs and corresponding kWh savings goal of \$0.27 per kWh of program year savings to apply to Program Year 7; and

WHEREAS, the Advisors found that the results from Entergy Arkansas correspond to the results from recent ENO Energy Smart Program Years and determined the \$0.27/kWh metric to be more appropriate for use in calculating the Program Year 7 budget than the \$0.32/kWh metric reflected in ENO's Implementation Plan; and

WHEREAS, applying the metric of \$0.27/kWh of program year savings to the kWh savings goal of Program Year 7 of 31,304,050 kWh for Scenario 2 results in a revised total program budget of \$8.45 million as compared to ENO's proposed Program Year 7 program budget of \$9.9 million; and

WHEREAS, the Advisors believe a \$8,452,094 annual budget to achieve the Council target goal of 31,304,050 kWh reduction would be more in line with providing ENO and its TPA an incentive to achieve the target goals; and

WHEREAS, the revised Program Year 7 program budget achieves additional ratepayer savings of \$1.5 million while adhering to the targeted kWh savings goal of Scenario 2; and

WHEREAS, the Council finds that the revised interim program budget of \$8.45 million is reasonable and should be implemented with the new programs in Program Year 7, until a final budget for Program Year 7 can be approved pending Council review of the results of the technical conferences and action on ENO's Supplemental and Amended Implementation Plan; and

LCFC Recovery Mechanism

WHEREAS, the existing LCFC mechanism originated in 2009 with an ENO rate case and annual revenue requirement adjustments from an FRP;⁹ and

WHEREAS, in Council Resolution No. R-16-103, the Council ordered ENO to include in its next base rate case filing, anticipated to be filed in early 2018, a proposal for a full decoupling mechanism, which would replace the LCFC mechanism; and

WHEREAS, neither Council Resolution No. R-15-140 nor No. R-15-599 require that the LCFC mechanism remain in place until the Council has approved a decoupling mechanism; and

WHEREAS, ENO found it necessary to specifically request in its Application that the Council approve continued usage of the LCFC mechanism; and

⁹ Council Resolution No. R-09-483.

WHEREAS, certain stakeholder comments have opposed allowing ENO to recover LCFC resulting from reduced kWh consumption related to Energy Smart programs to the extent ENO is already able to recover all of its cost of service through existing rates absent a LCFC cost recovery mechanism; and

WHEREAS, ENO's cost of service allows it the opportunity to earn a reasonable return on equity ("ROE") investment in ENO, which the Council last determined to be the ROEs of 11.1% for electric and 10.75% for gas, or a combined company ROE of approximately 11.04% in its 2013 finding in ENO's 2012 FRP evaluation report; and

WHEREAS, ROEs throughout the industry have been trending downward since the last Council-allowed ROEs for ENO in 2013 so that the last Council approved ROE now exceeds recent ROE rates as reported in the ROE survey in the November 2016 issue of *Public Utilities Fortnightly*; and

WHEREAS, due to the fact that rates are set based on a number of forecasted events which may or may not come to pass precisely as predicted, a utility will typically either over-earn or under-earn on its allowed ROE in any given year. Whether the over- or under-earning is just and reasonable relates to the magnitude of the over- or under-earning; and

WHEREAS, while no formal regulatory ROE analysis has been presented to the Council by ENO, the Advisors believe it is reasonable to approximate the regulatory ROE through data presented in Entergy Corp's Form 10-K Annual Report to the SEC; and

WHEREAS, based upon data presented in Entergy's Form 10-K Annual Report to the Securities and Exchange Commission for the years 2014, 2015, and 2016 the Advisors believe it is probable that ENO's book Earned ROE for those years exceeded the Council's last authorized ROE to a significant enough extent that there can be no doubt that ENO was able to recover its fixed costs in full. The Advisors anticipate that this situation is likely to continue until the Council establishes new rates as part of the combined rate case; and

WHEREAS, ENO stated in a March 31, 2016 letter to the Advisors "it would be highly unusual for regulatory ROE to be drastically different than book ROE;" and

WHEREAS, the Council has allowed ENO through its rates to recover its cost of service as a whole, but does not seek to ensure ENO may recover each element of its cost of service through special ratemaking mechanisms; now therefore

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NEW ORLEANS THAT:

1. The Council finds that Scenario 2 presented in the Application is consistent with the annual kWh savings goal of 0.2% per year described in Council Resolution R-15-599; therefore, the individual programs proposed by the Company for the ENO Legacy and ENO Algiers Energy Smart Program Years 7 through 9 are approved, with the exception of the program budget level and utility incentive level as further ordered herein.

2. The \$11.8 million balance of Energy Smart funds for the ENO Legacy Energy Smart Program as of April 1, 2017 reported by ENO should be used to continue funding of the ENO Legacy Energy Smart programs until Council action on incremental ratepayer funding is required, as anticipated in 2018. Subsequent to ENO's Supplemental and Amended Implementation Filing for Program Years 8 and 9, filed no later than October 1, 2017, the Council will determine the method of allocation for additional ratepayer funding requirements to each customer class, as well as the specific cost recovery mechanism. Until such time that additional ratepayer funding is required for ENO Legacy customers and at which time a universal funding mechanism is approved by the Council for both, the Algiers Energy Smart programs will continue to be funded through the Algiers Fuel Adjustment Clause.

3. ENO shall be permitted to collect the costs of implementing programs related to Program Year 7 from April 1, 2017 forward.
4. The Council directs the current performance-based utility incentive amount and incentive structure previously approved in Resolution R-15-140 for achieving 100% of the kWh savings goal for ENO Legacy and ENO Algiers be maintained.
5. The Council directs ENO, the TPA, the TPE, the Stakeholders and the Advisors to convene three technical conferences, the first of which will convene within 30 days of the adoption of this Resolution addressing the matters discussed hereinabove.
6. The Council directs that the two additional technical conferences be held expeditiously during the subsequent months as required prior to August 1, 2017.
7. No later than October 1, 2017, ENO is directed to file with the Council a Supplemental and Amended Implementation Plan for Program Years 8 and 9. Such Supplemental and Amended Implementation Plan shall contain:
 - a. Any new program definitions resulting from changes in program design addressing any consensus reached in the technical conferences regarding Stakeholders' and Advisors' Comments and the technical conferences that include, but are not limited to, a Residential HVAC replacement program and combining the Home Performance with Energy Star program budget with the Low Income program budget;
 - b. The results of modifications that resolve the inconsistencies between the Implementation Plan's DSM measure level costs and savings and those in the DSM Portfolio of the 2015 Final IRP;
 - c. The results of modifications that resolve the inconsistencies between the Scenario budget analysis and supporting models of the Application;
 - d. Recommendation on the level of implementation of the Residential Direct Load Control Pilot, Behavioral Pilot, and Algiers Smart Thermostat Pilot the new programs based on a complete assessment of collected data;
 - e. An updated total budget that considers any new program design changes while maintaining the kWh savings goal approved in this Resolution for Program Years 8 and 9 and the nine months (April 2017 through December 2017) of Program Year 7;
 - f. Any consensus of the parties related to the current status, adequacy and specific use of the New Orleans Technical Reference Manual as a critical resource in supporting the design and performance evaluation of all Energy Smart measures and programs and a final time for its completion;
 - g. A recommendation based on any consensus of all parties for incorporating an additional program year goal relating to peak kW reduction into the evaluation of all Energy Smart measures and programs for future Program Years and Program Year filings;
 - h. Analysis that includes the Utility's Cost Test and complete documentation for all cost/benefit calculations that demonstrates to customers that the benefits outweigh the costs; and
 - i. The specific customer class allocation and bill impact cost recovery mechanism related to any incremental ratepayer funding that will be required for Program Years 8 and 9 based upon the Advisors' recommendation as contained herein.
8. The Council accepts the Advisors' recommendation that the Energy Smart Program Years should coincide with calendar years to enable better verification of source data and to be more consistent with rate making test years and financial periods. The Council directs Program Year 7 to commence on April 1, 2017 and end on December 31, 2017, extend Program Year 7 for a period of nine months instead of 12 months. The revised Program Year 7 budget of \$8.45

million and the savings goal of 31,304,050 kWh shall be adjusted accordingly as determined by a consensus in the technical conferences ordered herein. The Council finds that Program Year 8 will coincide with calendar year 2018, with Program Year 8 implementation beginning January 1, 2018.

9. The Council finds that the revised annual budget of \$8.45 million recommended by the Advisors and the metrics supporting such recommendation are reasonable as an interim budget that should be implemented with the new programs in Program Year 7, with a final budget for Program Year 7 to be approved pending Council review of the results of the technical conferences and Council action on ENO's Supplemental and Amended Implementation Plan. Since ENO and the TPA have both expressed their readiness to implement the programs proposed in the Application, and in the interest of realizing an increased level of annual kWh savings more quickly, ENO is directed to begin program implementation of the ENO Legacy and the ENO Algiers Energy Smart Program Year 7 within seven days of the adoption of this Resolution by the Council using the revised annual budget of \$8.45 million and the current performance-based utility incentive structure with the current incentive amounts for achieving 100% of the kWh savings goal previously approved in Resolution No. R-15-140.

10. The Council will consider the appropriateness of the future use of a Lost Contribution to Fixed Cost Mechanism and other mechanisms in conjunction with its consideration of all ratemaking issues to be addressed in the 2018 Combined Rate Case. With regard to Energy Smart Program years 7, 8, and 9, the Council finds that ENO shall not be permitted to recover Lost Contribution to Fixed Costs. However, in order to facilitate the collection of robust data for the Council's future consideration of the Energy Smart programs, ENO is directed to continue to make its annual filing of its calculation of Lost Contribution to Fixed Costs.

11. PosiGen's proposal for a DSM pilot program is denied.

12. BSI's *Motion by Building Science Innovators, LLC for to Rescind "Resolution of All Issues" Filed on January 17 Within the 2015 Entergy New Orleans ("ENO") Integrated Resource Plan* is granted.

THE FOREGOING RESOLUTION WAS READ IN FULL, THE ROLL WAS CALLED ON THE ADOPTION THEREOF AND RESULTED AS FOLLOWS:

YEAS: Brossett, Cantrell, Gray, Guidry, Head, Ramsey, Williams - 7

NAYS: 0

ABSENT: 0

AND THE RESOLUTION WAS ADOPTED.

NO. R-17-177

CITY HALL: April 6, 2017

BY: COUNCILMEMBERS WILLIAMS, HEAD, GUIDRY, BROSSETT AND GRAY
IN RE: RESOLUTION REGARDING PROPOSED RULEMAKING TO ESTABLISH
INTEGRATED RESOURCE PLANNING COMPONENTS AND REPORTING
REQUIREMENTS FOR ENTERGY NEW ORLEANS, INC.

DOCKET NO. UD-08-02

RESOLUTION AND ORDER REGARDING ENTERGY NEW ORLEANS, INC.'S
REPORT IDENTIFYING ITS CHOICE OF THIRD PARTY ADMINISTRATOR FOR THE
NEW ORLEANS ENERGY SMART PROGRAMS IN COUNCIL UTILITY DOCKET NO.
UD-08-02

WHEREAS, pursuant to the Constitution of the State of Louisiana and the Home Rule Charter of the City of New Orleans ("Charter"), the Council of the City of New Orleans ("Council") is the governmental body with the power of supervision, regulation, and control over public utilities providing service within the City of New Orleans; and

WHEREAS, pursuant to its powers of supervision, regulation, and control over public utilities, the Council is responsible for fixing and changing rates and charges of public utilities and making all necessary rules and regulations to govern applications for the fixing and changing of rates and charges of public utilities; and

WHEREAS, Entergy New Orleans, Inc. ("ENO"), effective September 1, 2015, is a public utility providing electric and natural gas service to all of New Orleans;¹⁰ and

WHEREAS, ENO is a wholly owned subsidiary of Entergy Corporation ("Entergy"). The other four operating companies are Entergy Arkansas, Inc. ("EAI"), Entergy Louisiana, LLC ("ELL"), Entergy Mississippi, Inc. ("EMI") and Entergy Texas, Inc. ("ETI"). These five operating companies are referred to collectively as the "Operating Companies"; and

WHEREAS, through the Council's Integrated Resource Plan ("IRP") process, the Companies, working with the Council and stakeholders, have established the Energy Smart programs to promote energy efficiency and conservation measures throughout New Orleans; and

WHEREAS, the Council in Resolution R-15-140 required that ENO issue a Request for Proposals ("RFP") for a Third-Party Administrator ("TPA") to administer the subsequent Energy Smart Program Years 7-9 from April 1, 2017 to March 31, 2020; and

WHEREAS, on December 11, 2015, ENO submitted its draft TPA RFP for Program Years 7-9 to the Council's Advisors for review and comment; and

WHEREAS, after review and comment by the Advisors, ENO incorporated certain revisions to the RFP, and on May 2, 2016, filed with the Council its amended and final RFP for a TPA for future Energy Smart programs; and

WHEREAS, ENO's filing set forth a detailed schedule for the selection of a TPA, which indicated that ENO would submit its choice of a TPA to the Council on September 14, 2016; and

WHEREAS, on May 19, 2016, the Council issued Resolution No. R-16-186 accepting and approving ENO's RFP for a new TPA to administer the Energy Smart Program in years 7-9, from April 1, 2017 through March 31, 2020; and

WHEREAS, on December 16, 2016, several months after the date initially set forth in its timeline, ENO submitted its *Report Identifying its Choice of Third Party Administrator for the New Orleans Energy Smart Programs in Council Utility Docket No. UD-08-02* ("TPA Application"). In that report, ENO described its choice of Chicago Bridge and Iron Company, Environmental and Infrastructure, Inc. ("CB&I Capital Services") as its TPA, its choice of ADM Associates ("ADM") as its Third Party Evaluator ("TPE") and its choice of Accelerated Innovations L.L.C. ("AI") as its Behavioral Program Implementer for the Energy Smart programs; and

WHEREAS, the Council recognized that CB&I Capital Services was an affiliate of Chicago Bridge and Iron, L.L.C. ("CB&I"), which had been selected by ENO for the engineering, procurement, and construction ("EPC") contract for the New Orleans Power Station proposed in Council Docket UD-16-02. Accordingly, the Council expressed concern that the selection of the

¹⁰ Prior to September 1, 2015, ENO's electric service area consisted of all of New Orleans except for Algiers ("Legacy-ENO service area"), which, prior to that date, was served by Entergy Louisiana, LLC ("Legacy ELL-Algiers service area"). Throughout this document, "Company" refers to ENO after September 1, 2015 and "Companies" refers to ENO and ELL-Algiers, acting jointly, prior to September 1, 2015.

two CB&I affiliates for the TPA position and the EPC contract, respectively, might create a conflict of interest; and

WHEREAS, the Council directed the Advisors to examine the matter and to report to the Council; and

WHEREAS, after examining the matter the Advisors did not find a disqualifying conflict, but reported to the Council that protective language could be included in the TPA contract to avoid or mitigate any possible future conflicts; and

WHEREAS, the Council's Advisors further informed the Council that there were additional protections against a conflict of interest already in the TPA contract, including that (1) the Energy Smart program contains performance incentives that create incentives for exceeding the kWh goal targets set by the Council and penalties for failing to meet those targets; (2) a portion of CB&I Capital Services' compensation as TPA will be "at risk" and dependent upon the Council's kWh goals being met; (3) that CB&I's EPC contract is for engineering, procurement, and construction of the plant and does not tie CB&I's payment to the operations of the plant or the kWh of power produced by the plant; and (4) that the contract with CB&I Capital Services for the TPA role had not yet been finalized and further provisions could be added to avoid and/or mitigate any actual conflict of interest; and

WHEREAS, the Advisors reviewed the TPA Application and were of the opinion that the selection of ADM and Accelerated Innovations was reasonable, and that CB&I Capital Services was qualified and that no actual conflict of interest existed, and that any future concerns could be mitigated through the factors noted above along with additional provisions in the TPA contract; and

WHEREAS, the Council agreed with the Advisors that the selection of ADM and Accelerated Innovations is reasonable; and

WHEREAS, the Council concluded that any actual conflict of interest could be mitigated through the incentive and penalty structure for the Energy Smart program; keeping a portion of CB&I Capital Services compensation "at risk"; and by including provisions in the TPA contract to protect against and/or mitigate any conflicts of interest;

WHEREAS, on January 26, 2017, the Council adopted Resolution R-17-31 approving the selection of ADM as the Third Party Evaluator and Accelerated Innovations as the Behavioral Program Implementer; and

WHEREAS, the Council also approved the selection of CB&I Capital Services as the Energy Smart TPA subject to the following conditions:

- a. That the Council's incentive and penalty structure for Energy Smart shall be adhered to.
- b. That ENO shall consult with the Council's Advisors regarding the TPA contract with CB&I Capital Services to ensure that the contract contains sufficient terms and conditions to avoid and/or mitigate any actual conflict of interest. Further, the Advisors were directed to file a report with the Council by April 1, 2017 indicating whether or not they are satisfied that the conditions in the TPA contract provide sufficient mitigation of any actual conflict of interest; and

WHEREAS, pursuant to Council Resolution R-17-31, the Advisors have had extensive discussions with ENO and representatives of CB&I Capital Services regarding the Council's concerns about conflicts of interest; and

WHEREAS, specifically, the Council's Advisors' have recommended, and ENO and CB&I Capital Services have accepted, the inclusion of Paragraph 36 in the TPA's contract, which includes the following language:

Conflicts of Interest. The ENO Energy Smart energy efficiency programs are a product of the regulatory authority of the Council. Accordingly, all Work shall be done in compliance with the terms of the Contract and the directives of the Council. Further, the Council has an acknowledged interest in the faithful execution of the TPA's obligations and duties under the Contract. A Conflict of Interest exists if the TPA's obligations or duties to another person or entity are directly adverse to its obligations and duties to ENO and the Council under this Contract, or such obligations and duties would create a significant risk that its obligations and duties to ENO and the Council under this Contract would be materially limited. Accordingly, the TPA represents that it has no current affiliations or business relationships with any other person or entity that would be a Conflict of Interest as defined above. Should there be doubt as to whether such a Conflict of Interest exists the TPA shall disclose such relationship(s), in writing, to ENO and the Council, and the Council shall have final regulatory authority to determine whether such relationship(s) is disqualifying or shall be waived subject to requirements imposed by the Council. The TPA's obligation not to engage in Conflict of Interest relationships is an on-going obligation that binds the TPA for the entire term of the Contract, including any extensions thereof. Violation of this obligation may result in the Council imposing regulatory action up to and including termination of the Contract; and

WHEREAS, the Council's Advisors are satisfied that any actual or perceived conflict of interest is sufficiently mitigated by the inclusion of this provision in the TPA's contract and therefore, represent that the conditions contained in Ordering Paragraph 3(b) in Council Resolution R-17-31 have been met; now therefore

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NEW ORLEANS THAT the condition contained in Ordering Paragraph 3(b) of Council Resolution R-17-31 requiring ENO to consult with the Council's Advisors regarding the TPA contract with CB&I Capital Services to ensure that the contract contains sufficient terms and conditions to avoid and/or mitigate any actual conflict of interest has been met and the Advisors are satisfied that the conditions in the TPA contract are sufficient to avoid and/or mitigate any actual conflict of interest.

THE FOREGOING RESOLUTION WAS READ IN FULL, THE ROLL WAS CALLED ON THE ADOPTION THEREOF AND RESULTED AS FOLLOWS:

YEAS: Brossett, Cantrell, Gray, Guidry, Head, Ramsey, Williams - 7

NAYS: 0

ABSENT: 0

AND THE RESOLUTION WAS ADOPTED.

NO. M-17-178

CITY HALL: April 6, 2017

BY: COUNCILMEMBERS WILLIAMS, HEAD, GUIDRY, BROSSETT AND GRAY

Determining great and repeated deficiencies in providing requested information to the UCTTC and the Council, and that other responses from NOA-TV are inadequate, the City Council has directed CURO to recall the RFQ and to issue a new RFQ for a Manager of Public, Educational and Government ("PEG") Access Channels on the Cox Cable System, to include the management of live streaming and archiving for later access of meetings of the City Council, Council Committees, City of New Orleans Boards and Commissions, and other civic meetings and events as necessary.

WITHDRAWN. *(At the meeting of April 20, 2017).*

EAS Exhibit E
City Council Resolution No. R-17-303

RESOLUTION

NO. R-17-303

CITY HALL: June 8, 2017

BY:    COUNCILMEMBERS WILLIAMS, BROSSETT AND CANTRELL

WHEREAS, there is an international consensus that global climate change due to human activities is causing our planet to warm at an unsustainable rate; and

WHEREAS, New Orleans' geographical landscape and position make the city especially vulnerable to the ill effects of climate change; and

WHEREAS, without continued efforts to stop current trends, a rise in the global average temperature by two degrees Celsius above the pre-industrial global average temperature have catastrophic consequences including for New Orleans; and

WHEREAS, the current pace of climate change forecasts increasingly irregular, severe, and lethal weather patterns, loss of life and land due to rising sea levels, threatening food and water supplies, and global safety, stability and peace; and

WHEREAS, President Barack Obama, on behalf of the United States, joined 194 other signatories to adopt the Paris Agreement by consensus on December 12, 2015 to embrace a roadmap for climate action that will reduce emissions and build climate resilience; and

WHEREAS, the implementation of actions to uphold the agreement and achieve the collective goal of the agreement are to be defined and implemented by each participating nation; and

WHEREAS, the United States pledged to reduce greenhouse gas emissions 26% by 2025 from 2005 levels; and

WHEREAS, President Donald Trump's decision on June 1, 2017 to withdraw from the Paris agreement has far reaching implications for the spirit of international cooperation in pursuit of this goal and our international standing as a nation; and

WHEREAS, President Trump's controversial actions have had the unintended consequence of igniting a groundswell of support for the Paris agreement and an unprecedented depth of commitment to climate action, both domestically and internationally; and

WHEREAS, despite President Trump's decision, cities, states, corporations and other entities in the private sector are committing to continue to work to reduce carbon emissions and slow climate change; and

WHEREAS, this Council has made clear our diligent commitment to a sustainable future including improved energy efficiency and alternative energy sources to reduce greenhouse gas emissions and investment in sustainable infrastructure to build resilience; and

WHEREAS, backing out of the commitment put forth in the Paris agreement will have devastating long-term effects on our residents, environment, wildlife, and businesses; and

WHEREAS, New Orleans has an unparalleled opportunity to collaborate with domestic and international partners in resisting this potentially harmful decision, **NOW THEREFORE**;

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NEW ORLEANS, That the New Orleans City Council is committed to continue its efforts to mitigate carbon emissions through promoting and adopting achievable increased energy efficiency measures and use of alternative energy sources; and

BE IT FURTHER RESOLVED, That the City Council hereby declares its support of and joins with the growing coalition of leaders locally and around the world declaring their intent to continue to adhere to the Paris agreement; and

BE IT FURTHER RESOLVED, That pursuit and protection of sustainable development goals remains a top priority of this City, and this City Council wishes to reaffirm its commitment to the principles of the Paris agreement.

THE FOREGOING RESOLUTION WAS READ IN FULL, THE ROLL WAS CALLED ON THE ADOPTION THEREOF AND RESULTED AS FOLLOWS:

YEAS:

NAYS:

ABSENT:

AND THE RESOLUTION WAS ADOPTED.

EAS Exhibit F
City Council Resolution No. R-17-428

**RESOLUTION
R-17-428**

CITY HALL: August 10, 2017

BY: COUNCILMEMBERS WILLIAMS, HEAD, GUIDRY, BROSSETT AND GRAY

**RESOLUTION REGARDING CLIMATE ACTION FOR A RESILIENT NEW
ORLEANS STRATEGY**

WHEREAS, international scientific consensus has determined that global climate change due to human activity is causing our planet to warm at an unsustainable rate; and

WHEREAS, New Orleans' geographical landscape and position make the city especially vulnerable to the ill effects of climate change; and

WHEREAS, the Council has recently reaffirmed its longstanding commitment to achieving a sustainable, resilient future with reduced greenhouse gas emissions; and

WHEREAS, the Council also recently reaffirmed its commitment to the principles of the Paris Agreement and declared its intent to continue to adhere to the Paris Agreement; and

WHEREAS, the Council is committed to fulfilling its duty to ensure that reliable and affordable energy is provided to the citizens of New Orleans; and

WHEREAS, as a result of the Council's efforts, working with ENO regarding its resource portfolio over the last decade, ENO's carbon emissions are already 50% below the national average with less than 4% of its energy portfolio coming from coal and 2016 statistics indicating that number may be as small as 2%; and

WHEREAS, as a result of the Council's regulatory path, ENO is on pace to reduce its coal component to less than 1% before the Mayor's goal date of 2030; and

WHEREAS, the Council has also pressed ENO for greater use of renewable generation sources, which has resulted in a written commitment by ENO to add up to 100 MW of zero carbon emitting renewables to its energy portfolio; and

WHEREAS, over the years the Council has founded, substantially enlarged, and increased funding for its award-winning Energy Smart energy efficiency program; and

WHEREAS, the Council has also managed to keep electric rates among the lowest in the nation; and

WHEREAS, on July 7, 2017, Mayor Mitchell J. Landrieu issued Executive Order MJL 17-06 adopting the "Climate Action for a Resilient New Orleans" strategy ("Climate Action Strategy") with an ambitious goal to achieve additional reductions in the community's greenhouse gas emissions by 2030; and

WHEREAS, the Council welcomes the Administration's interest in and support for the pursuit of sustainable energy policies for the City, and commends the Administration for the considerable effort and resources devoted to developing the Climate Action Strategy; and

WHEREAS, the Council looks forward to the further development of the concepts set forth in the Climate Action Strategy; now therefore:

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF NEW ORLEANS THAT: the New Orleans City Council supports the City's goal to reduce overall greenhouse gas emissions dramatically by 2030; and

BE IT FURTHER RESOLVED THAT: the Council commits to work with the Administration in the further development of the concepts set forth in the Climate Action Strategy in the hopes of achieving its commitment to reduce greenhouse gas emissions dramatically by

2030 in a manner consistent with the Council's duty to ensure the reliable provision of energy to the citizens of New Orleans at just and reasonable rates; and

BE IT FURTHER RESOLVED THAT: the Council directs its Utility Advisors and the Council Utilities Regulatory Office to work with the Administration, and as each proposal for a specific action affected by the Climate Action Strategy that requires Council approval comes forward, the Utility, Cable, Telecommunications and Technology Committee shall open an appropriate docket to provide a full and transparent process, including all stakeholders, to examine the proposed action and develop a supportable regulatory strategy and administrative record upon which to base Council action.

THE FOREGOING RESOLUTION WAS READ IN FULL, THE ROLL WAS CALLED ON THE ADOPTION THEREOF AND RESULTED AS FOLLOWS:

YEAS: Cantrell, Gray, Guidry, Head, Ramsey, Williams - 6

NAYS: 0

ABSENT: Brossett - 1

AND THE RESOLUTION WAS ADOPTED.

THE FOREGOING IS CERTIFIED
TO BE A TRUE AND CORRECT COPY
Lera W. Johnson
CLERK OF COUNCIL