

December 2, 2019

**BY HAND DELIVERY**

Ms. Lora W. Johnson  
Clerk of Council  
Council of the City of New Orleans  
City Hall, Room IE09  
1300 Perdido Street  
New Orleans, LA 70112

Re: *2018 Triennial Integrated Resource Plan of Entergy New Orleans*, CNO Docket No. UD-17-03

Dear Ms. Johnson:

Enclosed please find an original and three (3) copies of the *Advisors' Report Regarding the Entergy New Orleans, LLC 2018 Integrated Resource Plan*, which we are requesting be filed on behalf of the Council's Utility Advisors. Please file the enclosed document and this letter in the record of this proceeding in accordance with your normal procedure.

Sincerely,

Jerry A. Beatmann, Jr.  
Counsel

JAB/dpm  
Enclosures

cc: Official Service List UD-17-03

**BEFORE THE  
COUNCIL OF THE CITY OF NEW ORLEANS**

**IN RE: 2018 TRIENNIAL )  
INTEGRATED RESOURCE PLAN OF ) DOCKET NO. UD-17-03  
ENTERGY NEW ORLEANS, INC. )  
)**

**ADVISORS REPORT REGARDING THE  
ENTERGY NEW ORLEANS, LLC 2018 INTEGRATED RESOURCE PLAN**

**December 2, 2019**

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Pursuant to the procedural schedule set forth in Resolution No. R-17-430, as modified by the March 26, 2018 Order by the Hearing Officer in this proceeding, the Advisors submit this Advisors' Report regarding ENO's 2018 Integrated Resource Plan. As discussed in full below, the Advisors recommend that the Council accept the Final 2018 IRP as being in compliance with the Council's requirements, approve the Final 2018 IRP subject to certain caveats, and provide certain guidance to the parties in the Initiating Resolution for the next IRP cycle.

## **I. Background**

The purpose of requiring a utility to complete an Integrated Resource Plan ("IRP") generally is to ensure that the utility is making prudent decisions regarding long-term investments in generation resources and power purchase agreements to ensure reliable service at a reasonable cost while adhering to Council policies. To do so, an integrated planning process requires the utility to forecast its peak load and energy needs and then evaluate a wide array of resources available to meet the long-term needs identified -- the resource options including all forms of commercially viable generation, as well as demand-side resources for reducing load, and investments in the transmission and distribution system that can enable a wider variety of resources to reach and serve load. Ideally, a well-developed IRP provides the regulator and the public with some assurance that the utility is properly considering all options available to it as it makes decisions about how to service its load.

The Council has required the utilities subject to its jurisdiction to complete an IRP under a uniform set of rules since 2008.<sup>1</sup> Subsequent to its consideration of Entergy New Orleans, LLC's ("ENO") 2015 IRP, the Council determined that it would revise its Integrated Resource Plan Rules<sup>2</sup> which ultimately resulted in the Council's adoption of Resolution No. R-17-429, establishing the Electric Utility Integrated Resource Plan Rules of the Council of the City of New Orleans ("IRP Rules") in Council Docket No. UD-17-01.<sup>3</sup> In the IRP Rules, the Council states:

*These IRP Rules are intended to inform and empower effective Council and utility decision-making, while augmenting utility resource planning and enhancing public awareness of and input into the utility's energy choices. It is the Council's desire that a comprehensive IRP conducted in accordance with these IRP Rules provide a full picture of all reasonably available resource options in light of current and expected market conditions and technology trends, and generate an informed understanding of the economic, reliability, and risk evaluation of utility resource planning as well as the associated social and environmental impacts. Further, the Council wishes to encourage and enforce a transparent process that allows all interested constituents and stakeholders to participate and that fosters the development of a complete administrative record upon which informed Council decision-making can occur.<sup>4</sup>*

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<sup>1</sup> Council Resolution No. R-08-295, "Resolution Regarding Proposed Rulemaking to Establish IRP Components and Reporting Requirements for Entergy New Orleans, Inc."

<sup>2</sup> See Council Resolution No. R-17-32 (as corrected), "Resolution and Order Establishing a Rulemaking Proceeding Regarding Integrated Resource Planning."

<sup>3</sup> The currently effective version of the IRP Rules are attached to Resolution No. R-17-429 as Attachment B.

<sup>4</sup> IRP Rules at 1.

The IRP Rules establish an open and transparent process by which all electric utilities subject to the Council's regulatory jurisdiction develop and file IRPs. The IRP Rules set forth the procedural and substantive requirements for the development of an IRP and the required contents of an IRP Plan submitted to the Council. The IRP Rules also require an Initiating Resolution to be adopted by the Council for each triennial IRP process that outlines the IRP process and timeline, Intervenor and public participation, policy objectives for consideration in the IRP and other matters as deemed necessary by the Council. This is the first IRP performed under the new IRP Rules.

In the IRP Rules, the Council set forth specific objectives for the IRP, including, but not limited to: (1) optimize the integration of supply-side resources and demand-side resources, while taking into account transmission and distribution, to provide New Orleans ratepayers with reliable electricity at the lowest practicable cost given an acceptable level of risk; (2) maintain the Utility's financial integrity; (3) anticipate and mitigate risks associated with fuel and market prices, environmental compliance costs, and other economic factors; (4) support the resiliency and sustainability of the Utility's systems in New Orleans; (5) comply with local, state and federal regulatory requirements and regulatory requirements and known policies (including such policies identified in the Initiating Resolution) established by the Council; (6) evaluate the appropriateness of incorporating advances in technology, including, but not limited to, renewable energy, storage, and DERs, among others; (7) achieve a range of acceptable risk in the trade-off between cost and risk; and (8) maintain transparency and engagement with stakeholders throughout the IRP process by conducting technical conferences and providing for stakeholder feedback regarding the Planning Scenarios, Planning Strategies, input parameters, and assumptions.<sup>5</sup>

For the 2018 IRP, the Council issued its Initiating Resolution in August of 2017, Resolution No. R-17-430 ("Initiating Resolution"), which established a procedural schedule for the IRP in new Docket No. UD-17-03, set forth certain policy objectives and determined the Council would hire its own, independent consultant to perform a demand-side management ("DSM") Potential Study, as well as addressing other procedural matters. The procedural schedule set forth in Resolution No. R-17-430 was later modified in an Order issued in the Docket by the Hearing Officer on March 26, 2018 ("March 26 Order"). A number of parties intervened in the case, including 350 New Orleans, the Alliance for Affordable Energy ("AAE"), Air Products and Chemicals, Inc. ("Air Products"), Wisznia Company, Inc., U.S. Green Building Council, Louisiana Chapter, Sewerage and Water Board of New Orleans ("S&WB"), Lower Nine House of Music, Green Light New Orleans, The Water Collaborative of Greater New Orleans, American Institute of Architects, Gulf States Renewable Energy Industries Association ("GSREIA"), Deep South Center for Environmental Justice, Greater New Orleans Housing Alliance, PosiGen, and the Advanced Energy Management Alliance. The Council selected Optimal Energy, Inc. ("Optimal") as the Council's independent consultant to provide a DSM Potential Study. ENO subsequently held various technical meetings of the parties and public meetings regarding the development of the IRP and ultimately submitted its IRP to the Council on July 19, 2019 ("Final IRP Plan").<sup>6</sup> AAE

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<sup>5</sup> IRP Rules at Section 3.A.

<sup>6</sup> Entergy New Orleans, LLC., 2018 Integrated Resource Plan, ("Final IRP Plan"), Docket No. UD-17-03, July 19, 2019.

filed comments on the Final IRP Plan on September 16, 2019,<sup>7</sup> and ENO filed comments in response on October 29, 2019.<sup>8</sup>

The Advisors have considered the Final IRP Plan and the comments submitted regarding it, and now submit this Report to the Council. Under the IRP Rules, the Council must make two determinations. First, the Council must determine whether or not the Final IRP Plan is in compliance with the Council's IRP Rules and the procedural schedule established for this triennial IRP cycle; in which case the Council shall accept ENO's IRP as filed in compliance with the Council's substantive and procedural requirements (if it is not in compliance with the requirements, it may be rejected without prejudice to the utility refiling the IRP once it has corrected the deficiencies).<sup>9</sup> Second, after consideration of all of the evidence entered into the record, the Council may approve the accepted IRP, approve it subject to conditions or with modifications, approve it in part and reject it in part, reject it in its entirety, or choose to terminate the proceeding without either approving or rejecting the accepted IRP.<sup>10</sup> The Council's acceptance of the IRP has no precedential effect with respect to the Council's evaluation of any application for approval of the acquisition, implementation, or deactivation of any supply-side or demand-side resource or program.<sup>11</sup>

## **II. Whether the Report is in Compliance with the Council's Requirements**

Section 10.E of the IRP Rules states in part:

Provided the IRP fulfills the requirements contained herein and was developed in compliance with the procedural schedule established for the triennial IRP cycle, the Council shall accept the Utility's IRP as filed in compliance with the Council's substantive and procedural requirements. Failure of the utility to substantially comply with the provisions of these Rules may result in summary rejection of the Utility's IRP. Such rejection may be without prejudice to the refiling of the IRP once the utility has corrected the deficiencies.

### **A. Procedural Requirements**

The IRP Rules, the Initiating Resolution and the March 26 Order set forth specific procedural requirements and a specific procedural schedule for the case. Below is a table summarizing ENO's procedural requirements through the date of this Report and whether and how ENO met each requirement:

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<sup>7</sup> Alliance for Affordable Energy's Comments on Entergy New Orleans, LLC's Integrated Resource Plan Report ("AAE Comments"), Docket No. UD-17-03, Sept. 16, 2019.

<sup>8</sup> Entergy New Orleans, LLC's Reply Comments Concerning the 2018 Integrated Resource Plan Report ("ENO Reply Comments"), Docket No. UD-17-03, Oct. 29, 2019.

<sup>9</sup> IRP Rules at Section 10.E.

<sup>10</sup> IRP Rules at Section 10.E.

<sup>11</sup> IRP Rules at Section 10.F.

<b>IRP Rules Requirement</b> <i>(Initiating Resolution as modified by March 26 Order, and IRP Rules Section 9)</i>	<b>Action(s) Taken</b>	<b>Whether Requirement Was Met</b>
Initial public meeting (kickoff and educational meeting) no later than Sept. 25, 2017	Meeting held Sept. 25, 2017	Yes
Technical Meeting 1 of the parties between January 10 and January 22, 2018 (discussion of Planning Scenarios and Strategies)	Meeting held Jan. 22, 2018	Yes
Completion of DSM Potential Studies by Aug. 31, 2018	Filed Aug. 31, 2018	Yes
Technical Meeting 2 of the parties (to confirm Scenarios and Strategies), between Sept. 17 and Sept. 28, 2018	Meeting held Sept. 14, 2018 (date chosen with consensus of the parties)	Yes
Technical Meeting 3 of the parties (finalization of Scenarios and Strategies and lock down of inputs) between Nov. 19 and 30, 2018	Meeting held Nov. 28, 2018	Yes
Finalization of all IRP inputs, Dec. 7, 2018	Agreement among parties reached at Technical Meeting 3, memorialized in Advisor email to parties dated Dec. 4, 2019	Yes
Completion of all optimized portfolio development and results, April 8, 2019	Completed on time, circulated to parties on April 17, 2019 in advance of Technical Meeting 4	Yes
Technical Meeting 4 of the parties (to review the optimized portfolios and finalize scorecard metrics) between April 22 and May 3, 2019	Meeting held May 1, 2019	Yes
2018 IRP Final Report filed July 19, 2019	Filed July 19, 2019	Yes
Second Public Meeting (present IRP Report) between July 29 and Aug. 9, 2019	Meeting held Aug. 9, 2019	Yes
Third Public Meeting (to receive public comment on IRP Report) between Aug. 28 and Sept. 11, 2019	Meeting held Sept. 11, 2019	Yes
Technical Meeting 5 of the parties (to discuss Energy Smart Implementation Plan) between Aug. 28 and Sept. 11, 2019	Meeting held Sept. 11, 2019	Yes
Intervenor Comments filed Sept. 16, 2019	Comments filed Sept. 16, 2019	Yes

ENO Reply Comments filed Oct. 29, 2019	Comments filed Oct. 29, 2019	Yes
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The Advisors conclude that ENO did meet the procedural requirements of the IRP Rules, the Initiating Resolution and the March 26 Order.

**B. Required Report Content**

The IRP Rules and Initiating Resolution set forth numerous substantive requirements for the IRP analysis and Report. As is required in the IRP Rules,<sup>12</sup> ENO included as Appendix A to its Final IRP Plan a Rules Compliance Matrix setting forth each requirement and explaining how ENO met each requirement. The Advisors have reviewed ENO’s Rules Compliance Matrix, which is attached to this Report as Attachment A, and verified the information contained therein, and find that it is complete and does demonstrate to the Advisors’ satisfaction that ENO has complied with the substantive requirements of the IRP Rules and Initiating Resolution.

**C. The Final IRP Plan is in Compliance with the Council’s Requirements**

The Advisors conclude that ENO has met both the Council’s procedural requirements and the requirements for the content of the IRP report, and therefore recommend that the Council accept ENO’s Final IRP Plan as filed in compliance with the Council’s substantive and procedural requirements.

**III. Outcome of the Report**

The second part of Section 10.E of the IRP Rules states:

Further, after consideration of all the evidence entered into the record, the Council may approve the accepted Utility IRP, approve it subject to stated conditions, approve it with modifications, approve it in part and reject it in part, reject it in its entirety, or choose to terminate the proceeding without either approving or rejecting the accepted Utility IRP. Nothing in this provision limits the Council’s ability to take any action with respect to the IRP that is within its authority, including the Council’s ability to open a prudence investigation for noncompliance on the part of the Utility.

The Advisors recommend that the Council approve the IRP subject to certain caveats, as discussed below.

The Advisors believe that the 2018 IRP does provide a credible planning perspective to consider options for meeting forecasted utility electrical energy and demand over the 20-year planning period, assuming a range of expected market conditions in MISO. Contrary to previous IRPs, which offered a “preferred portfolio,” the revised IRP Rules and resulting Final IRP Report represents the first attempt to provide a useful planning tool for the Council to assist in evaluating future resource options.

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<sup>12</sup> IRP Rules Section 1.



Future market conditions were adequately recognized in the IRP process through three different Planning Scenarios, defined by key market assumptions, and policy and planning objectives were also adequately recognized by five different Planning Strategies. The IRP modeling process produced several optimum resource portfolios from the combinations of planning scenarios and planning strategies. The Planning Scenarios were agreed to by the parties as being representative of the different possible future market outcomes. Planning Scenario 1 was essentially a middle-of-the-road or reference Scenario that assumed moderate load growth, natural gas prices, and CO<sub>2</sub> prices, a low level of deactivations of coal and legacy gas resources and a moderate mix of new gas resources and renewable resources being added to MISO going forward.<sup>13</sup> Planning Scenario 2 is a scenario that is essentially favorable to the addition of traditional fossil generating resources, with high load growth, low natural gas and CO<sub>2</sub> prices, a moderate level of retirement of legacy resources, and a high mix of new natural gas in MISO relative to new renewables.<sup>14</sup> Planning Scenario 3 is a scenario that is essentially favorable to greater deployment of renewables and distributed energy resources with low load growth, high natural gas and CO<sub>2</sub> prices, the highest percentage of retirements of existing resources and an even mix of new fossil resources and new renewable resources in MISO.<sup>15</sup> The Advisors concur with the parties that these three Planning Scenarios capture a reasonable range of possible future scenarios that could occur over the next twenty years. It should be noted that in all likelihood the actual market future will not match any of the three scenarios precisely but will likely fall somewhere within the range of futures the scenarios represent.

The five Planning Strategies agreed to by the parties were intended to represent the different policy and planning objectives that could be achieved by various optimized resource portfolios. Strategy 1 was designed to demonstrate the least expensive portfolios that would result in a reliable power supply for the city across each of the three possible future scenarios.<sup>16</sup> Strategy 2 was designed to demonstrate the least expensive portfolios that would achieve the Council's 2% energy efficiency savings goal and provide reliable power across each of the three possible future scenarios.<sup>17</sup> Strategy 3 was designed to demonstrate the least expensive portfolio assuming the level of achievable energy efficiency and demand response determined in the Optimal DSM potential study while assuring reliable power across each of the three possible future scenarios.<sup>18</sup> Strategy 4 was designed to demonstrate the least expensive portfolios that would achieve the high case of energy efficiency and demand response determined in the Navigant DSM Potential Study while ensuring reliable power across each of the three possible future scenarios.<sup>19</sup> Finally, Strategy 5 was the Stakeholder Strategy, chosen by the stakeholders and assuming the level of achievable energy efficiency and demand response determined in the Optimal DSM potential study using only DSM, renewable and energy storage resources while assuring reliable power across each of the three possible future scenarios.<sup>20</sup>

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<sup>13</sup> Final IRP Plan at 54.

<sup>14</sup> Final IRP Plan at 54.

<sup>15</sup> Final IRP Plan at 54.

<sup>16</sup> Final IRP Plan at 55.

<sup>17</sup> Final IRP Plan at 55.

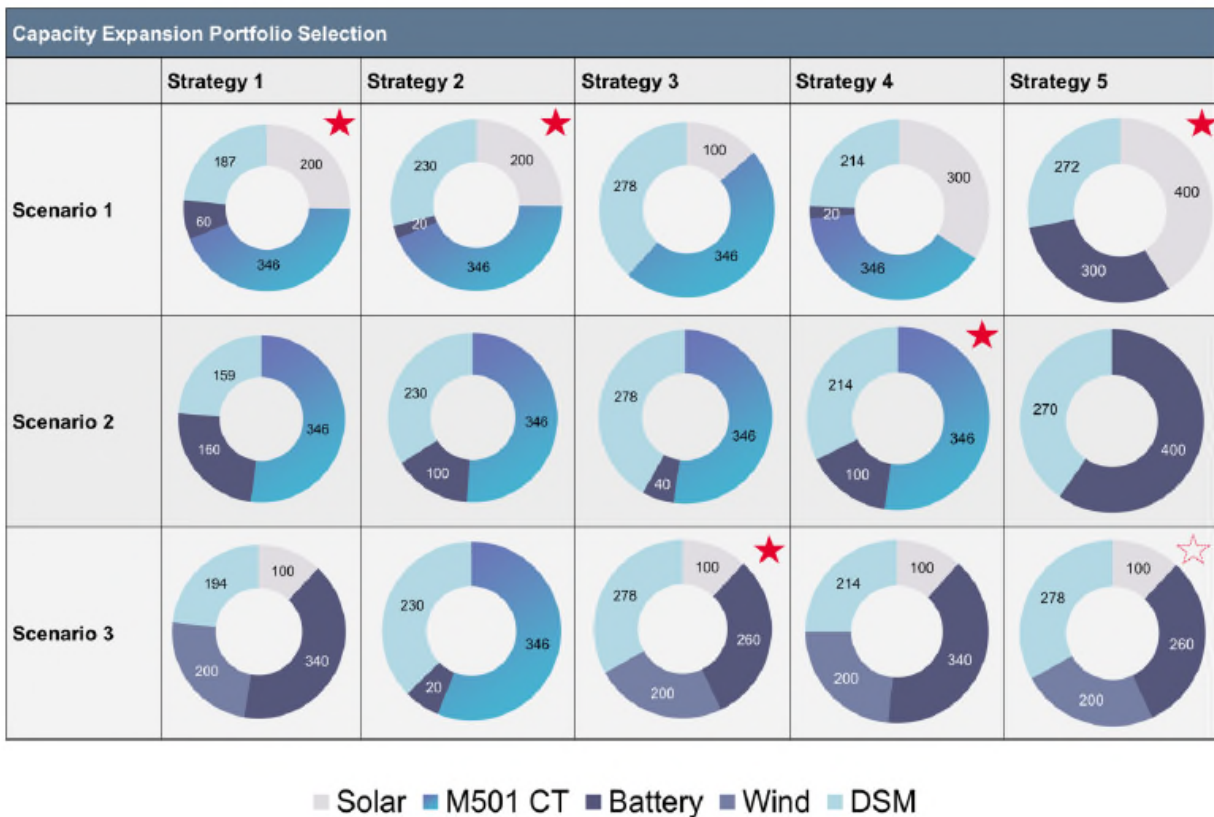
<sup>18</sup> Final IRP Plan at 55.

<sup>19</sup> Final IRP Plan at 55-56.

<sup>20</sup> Final IRP Plan at 55-56.

Although this IRP included one more Planning Strategy than is specified under the IRP Rules, the Planning Scenarios and Strategies were defined and agreed upon by the parties during the stakeholder process, and subsequently were implemented in the IRP AURORA modeling process to result in 15 optimized resource portfolios. The optimized portfolios presented the total supply cost to serve customers’ energy and demand needs reliably under the assumptions of each portfolio through the 20-year planning horizon. The optimized portfolios included different combinations of renewables, battery storage, combustion turbines, and DSM programs based on specific planning assumptions. The Scenarios and Strategies resulted in the following portfolios, as set forth in Table 16 of the Final IRP Plan.<sup>21</sup>

Table 16: ENO Optimized Portfolios<sup>18</sup>



Each of the fifteen optimized portfolios represents the least cost portfolio that could be employed under the assumptions contained in the relevant Planning Scenario pursued under the relevant Planning Strategy. When looking at the annual results of the IRP modeling, it is very important to note that based on current assumptions, the overall analysis shows that ENO will not have a need for new resources until 2033.<sup>22</sup> Therefore, the optimized portfolios produced are essentially suggesting resources to be added in the 2033-2038 timeframe. There will be several more triennial IRP plans performed between now and then that will further inform future planning before new resources are added. Consequently, the current Final IRP Plan is best used to inform the near term

<sup>21</sup> Final IRP Plan at 58.

<sup>22</sup> Final IRP Plan at 5. It is important to note that the Final IRP Plan does assume that none of the current ENO resources would be retired or otherwise disposed of prior to the end of the life of the asset.

DSM goals, and specifically, the Energy Smart Program design to implement for the next set of program years. Nevertheless, there are a few key takeaways that can be gleaned from looking at the total range of long-term optimized resource portfolios produced.

First, DSM plays a significant role in every portfolio, ranging from 159 to 278 MW, which indicates that continuing to invest in and grow DSM with the Energy Smart Program is desirable. Second, while the ideal amount of battery storage varied substantially across the scenarios, ranging from 20 MW to as much as 400 MW, fourteen of the fifteen optimized portfolios indicated that reasonable amounts of battery storage should be included in ENO's future resource portfolio. Third, nine of the optimized portfolios included the addition of 346 MW of new natural gas capacity, but six did not include any new natural gas. Similarly, nine of the fifteen optimized portfolios included significant solar resources of at least 100 MW, ranging up to as much as 400 MW while six do not. Four of the optimized portfolios include significant amounts of both solar and natural gas. Based on recent trends, the Advisors anticipate that over the next few triennial IRP cycles, results are likely to show reliance on natural gas decreasing and reliance on solar increasing. The results of this IRP cycle, however, show that depending on which future planning scenarios come into being, there is potential for both solar and natural gas to continue to play significant resource roles in the future.

In particular, because DSM is recognized as an important demand-side resource, the five planning strategies enabled the evaluation of two separate DSM potential studies as inputs to the IRP process -- one DSM potential study from ENO and a separate DSM potential study authorized by the Council. The parties agreed on separate assignments of DSM inputs from either study to each of the five Strategies analyzed in the IRP modeling, which was exhibited in the comparative results of the portfolios.

ENO cautioned in the Final IRP Report regarding direct comparisons between optimized resource portfolios based on different DSM potential studies, writing, “[i]t is important to note that the total costs of Portfolios incorporating DSM inputs from the two different studies cannot be directly compared.”<sup>23</sup> ENO's caution regarding comparative results between the two DSM potential studies was also extended to the IRP scorecard. Since the IRP represents a principal DSM source to inform the implementation of Energy Smart DSM programs in the city over the next few years, the triennial DSM cost-benefit analysis and selection of DSM programs by the independent Energy Smart Third Party Administrator and Third Party Evaluator in turn represent valuable sources for IRP DSM inputs. The Final IRP Plan alluded to the increased complexity of the analysis with DSM inputs from two DSM potential studies, but it is necessary for the IRP process to include the range of energy and demand reductions and associated costs represented by differing credible sources. The Advisors note that the prospective three-year Energy Smart Implementation Plan is expected to include DSM program reductions and costs that differ from each of the two DSM potential studies used as IRP DSM inputs.

The objectives related to identifying these specific three Planning Scenarios and five Planning Strategies were generally achieved through limiting the complete IRP modeling process and calculations to five optimized resource portfolios. During a technical conference, the parties reviewed the initial set of fifteen optimized portfolios and agreed that a subset of the five portfolios

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<sup>23</sup> Final IRP Plan at 6.

would be sufficiently representative to accomplish the planning objectives, since the remainder of the detailed supply cost analysis encompassed hourly production cost modeling. The total supply costs for the initial set of 15 optimized portfolios were provided in the AURORA capacity expansion module which included a useable estimate of variable supply costs based on an annual hours and operating costs of resources compared to the more detailed hourly production cost modeling. The comparative net present value (“NPV”) revenue requirement results from the capacity expansion model were not provided for the fifteen optimized portfolios.<sup>24</sup> However, the NPV revenue requirements for each of the subset five portfolios were developed for each of the three Planning Scenarios, exhibiting a revenue requirement range for the five subset portfolios. A range of results was also provided for four of the five subset portfolios related to changes in the input assumptions of natural gas price and CO<sub>2</sub> price, as agreed upon by the parties. These ranges of results helped to increase confidence in the IRP portfolios and their underlying assumptions.

The Final IRP Plan did include a scorecard, agreed upon by the parties, to assist the Council in assessing the IRP portfolios beyond the total supply cost metric. The scorecard included several aspects of the Resource Portfolios, including social and environmental impacts, some of which could only be evaluated on a subjective basis. The Final IRP Plan statements regarding the IRP scorecard were apprehensive, noting the difficulty inherent in trying to compare resource portfolios based on different assumptions and subjective characteristics. Despite such apprehension, the Advisors found this first attempt to employ an IRP scorecard to be a valuable tool in comparing the various optimized resource portfolios.

There was considerable discussion among the parties on the issue of how to evaluate existing resource retirements in the IRP planning process. While existing resource retirement dates may be fixed for several reasons, the IRP planning process does represent an avenue to explore alternate possibilities related to resource retirement, including various economic based analyses. It is the Advisors’ understanding that AURORA’s modeling capability provides for an economic analysis of retirement rather than fixed retirement dates as used in this IRP process. IRP Rules Section 1.D states:

Each Utility IRP is intended to serve as a **general resource planning tool** to the Utility and the Council, rather than a forum for the approval of the acquisition, implementation, or deactivation of any supply-side or demand-side resource (emphasis added).

It is the Advisors’ understanding of the IRP modeling capability that AURORA uses real levelized cost to make decisions about new units and resource retirements. AURORA Capacity Expansion Long Term Optimization Logic enable Long-Term Optimization studies used to forecast capacity expansion resources and retirements. Future resources can be included in a resources table with pre-determined start dates. Alternatively, a new resources table can be used in conjunction with long-term optimization logic to use market economics to select resource additions and retirements. This optimization process simulates what happens in a competitive marketplace and produces a set of future resources that have the most value in the marketplace. AURORA modeling can assume that new generators will be built (and existing generators retired) based on economics.

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<sup>24</sup> Final IRP Plan at 58, Table 16.

The Final IRP Plan did present an acceptable summary of ENO’s ongoing efforts related to the current status towards optimizing distributed energy resources on the distribution grid, including the current implementation of AMI and several associated software systems, the ongoing progress of grid modernization projects, and the implementation of the LoadSEER application to enable bottom-up capacity analyses at distribution feeders. Similar to previous IRPs, the Final IRP Report summarized the long-term hourly load forecast, and estimated load shapes for each customer class. The forecasted energy, the forecasted peaks, and the forecasted customer class hourly profiles are calibrated together and typical load shapes for incremental solar and electric vehicle consumption are used to allocate reduced or increased consumption to the appropriate hour of use. However, future IRP final reports should include more detail regarding how specific various distributed energy resources impact the load forecast, with potential ranges of projected estimates.

**A. Comments of the Parties**

While many of the parties were active participants in the technical meetings and public hearings, AAE was the only party to file written comments regarding the Final IRP Plan. AAE praises the report, writing that “[t]his IRP represents a significant step forward in modern energy planning and stakeholder engagement for New Orleans” and that the AAE “is encouraged to see the outcome.”<sup>25</sup> AAE comments that the Final IRP Plan is best used at this time to inform the upcoming years of Energy Smart programming.<sup>26</sup> AAE notes that while the two DSM Potential Studies project substantially different achievable energy efficiency potentials, they both outline opportunities to significantly increase efficiency and reduce peak demand.<sup>27</sup> AAE states that just as ENO argues that Optimal’s assumptions may have been more aggressive than Navigant’s, the Council should consider that Navigant’s assumptions may have been too conservative since they were based on past performance of the Energy Smart program in years where ENO was not required to achieve all cost-effective energy efficiency.<sup>28</sup>

AAE has difficulty understanding why none of the modeled portfolios achieve the full DSM potential identified in either potential study.<sup>29</sup> AAE requests that ENO provide tables, similar to Table 27 of the February 2, 2016 IRP report that show the annual incremental addition of capacity for each of the four portfolios.<sup>30</sup> AAE also states that more information is needed regarding the expected total MWh energy savings associated with the different programs that comprise each of the portfolios.<sup>31</sup> AAE requests information regarding the extent to which ENO expects to rely on behavioral programs to achieve the savings levels it includes in different portfolios.<sup>32</sup> AAE states that ENO’s omission of any discussion of Conservation Voltage Reduction measures is a significant omission that should be explained.<sup>33</sup>

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<sup>25</sup> AAE Comments at 1.

<sup>26</sup> AAE Comments at 2.

<sup>27</sup> AAE Comments at 3.

<sup>28</sup> AAE Comments at 3-4.

<sup>29</sup> AAE Comments at 4.

<sup>30</sup> AAE Comments at 4-5.

<sup>31</sup> AAE Comments at 5.

<sup>32</sup> AAE Comments at 5.

<sup>33</sup> AAE Comments at 5-6.

AAE states that more information is needed from ENO on the expectation of retirements associated with affiliate PPAs, and how these plant retirements impact the energy mix in terms of time, cost, and resource replacement.<sup>34</sup> AAE recommends that ENO plan to file Entergy Louisiana's Legacy Economic Study with the Council when the study is filed with the Louisiana Public Service Commission.<sup>35</sup> AAE objects that the IRP Final Report shows only information related to incremental additions to ENO's current resources, rather than allowing potentially lower-cost resources to compete and replace inefficient and uneconomic power.<sup>36</sup> AAE also argues that the resources allowed to compete are assumed to be investments by ENO, as opposed to contracted or acquired in other ways, and it may be far more cost-effective for ENO to contract with an unaffiliated third-party for resources than for ENO to build, own, and operate them.<sup>37</sup>

AAE references ongoing negotiations between ENO and S&WB regarding the electrification of the S&WB's drainage and water purification system, and notes that the impact of additional load replacing S&WB's current self-generation would represent a significant change in New Orleans' energy system and load shape.<sup>38</sup>

AAE supports ENO's efforts to optimize distributed resources and modernize the distribution grid, including leveraging the value of the features inherent in Advanced Metering Infrastructure.<sup>39</sup> AAE notes that none of the portfolios included in the Final IRP Report include as many renewables as parties are proposing in the Renewable Portfolio Standards ("RPS") docket (UD-19-01).<sup>40</sup> AAE states that ENO's proposed acquisition of 150 MW of renewables in the RPS docket would likely supplant existing resources, but existing resources are "baked in" to the IRP analysis and therefore it is difficult to use it to inform the Council's decision in the RPS docket.<sup>41</sup> AAE claims that the best information to be gleaned from the IRP report is that optimized demand, plus renewable, efficient resources, all supported by backup storage would be the most cost effective new choices going forward.<sup>42</sup>

ENO submitted comments responsive to the AAE's comments, but reserves any comment on issues related to the Energy Smart Implementation Plan for when it is filed later this year.<sup>43</sup> ENO notes that the 2018 IRP cycle has been the most collaboratively conducted IRP to date.<sup>44</sup> ENO states that in particular, the requirement in the new IRP Rules that parties work to achieve consensus on and "lock down" certain inputs and assumptions by specific dates in the process prior to conducting the modeling greatly improved the efficiency of the process and has, evidently, significantly narrowed the number of issues about which the parties have outstanding concerns as related to the Final IRP Report.<sup>45</sup>

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<sup>34</sup> AAE Comments at 6.

<sup>35</sup> AAE Comments at 7.

<sup>36</sup> AAE Comments at 7.

<sup>37</sup> AAE Comments at 7.

<sup>38</sup> AAE Comments at 7.

<sup>39</sup> AAE Comments at 8.

<sup>40</sup> AAE Comments at 9.

<sup>41</sup> AAE Comments at 9.

<sup>42</sup> AAE Comments at 9.

<sup>43</sup> ENO Reply Comments at 1.

<sup>44</sup> ENO Reply Comments at 2.

<sup>45</sup> ENO Comments at 2.

ENO argues that AAE's complaint that the IRP does not consider accelerated resource deactivations of existing units by "allowing potentially lower-cost resources to compete and replace inefficient and uneconomic power" was previously addressed in the rulemaking and Technical Meeting process adopted by the Council.<sup>46</sup> ENO argues that AAE provided no evidence to substantiate its assertions that the Grand Gulf Nuclear Station ("Grand Gulf") or any other resource is "uneconomic."<sup>47</sup> ENO argues that the parties clearly explained to AAE in Technical Meeting 2 that such analyses (i) were purposefully and intentionally rejected from inclusion in the Council's IRP Rules, (ii) would be beyond the scope of and increase cost and time associated with, the IRP, (iii) could not be accommodated by modeling constraints and timelines, and (iv) would ultimately not provide relevant information to the Council to inform its decision making process.<sup>48</sup> ENO notes that various PPAs, tariffs, and rates associated with Grand Gulf and other resources are within the exclusive jurisdiction of the Federal Energy Regulatory Commission ("FERC").<sup>49</sup> ENO argues that therefore, because the Council cannot order the termination of agreements and rates approved by FERC, such analysis would not inform and empower effective Council decision-making.<sup>50</sup>

As to AAE's criticism of the Navigant DSM Potential Study, ENO argues that AAE has misunderstood Navigant's methodology.<sup>51</sup> ENO also explains that Navigant did not consider CVR in its study because it is a grid-level measure, not a program that incents participating customers to increase energy efficiency at a particular service location.<sup>52</sup> In response to AAE's request for information on ramp-up periods and rates for programs, ENO attached to its Reply Comments several exhibits with additional information.<sup>53</sup>

The Advisors agree with the parties' assessment that this first IRP cycle under the new IRP Rules resulted in a more collaborative and efficient process with a less contentious result than prior IRP cycles under previous rules. The Advisors also agree that while the Final IRP Plan provides interesting insight into long-term resource planning, the most immediate application of the Final IRP Plan should be in informing the Implementation Plan for Energy Smart Program Years 10-12, which is due to be filed by ENO on December 9, 2019.

Further, while the Advisors do recognize that with respect to certain resources, the FERC and not the Council has the jurisdiction to determine the extent to which ENO can terminate its commitments and obligations, however, the Advisors believe it would be informative to the Council to see the results of AURORA's analysis as to when it would be economic to retire ENO's various existing resources rather than programming in a specific retirement date for each resource.

Finally, the Advisors note that there are various outstanding proceedings, such as the RPS Docket (UD-19-01) and the Smart Cities docket (UD-18-01) that may impact resource choices and should inform future triennial IRP cycles. The IRP plan completed in this triennial cycle was initiated,

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<sup>46</sup> ENO Comments at 2-3, citing Resolution No. R-17-429 at 26.

<sup>47</sup> ENO Comments at 3.

<sup>48</sup> ENO Reply Comments at 3.

<sup>49</sup> ENO Reply Comments at 3.

<sup>50</sup> ENO Reply Comments at 3.

<sup>51</sup> ENO Reply Comments at 4.

<sup>52</sup> ENO Reply Comments at 4.

<sup>53</sup> ENO Reply Comments at 4-5.

and many steps in the IRP process were completed before these dockets began to take shape. Therefore, while this Final IRP Plan for 2018 may have points of interest worthy of discussion in such dockets, approval by the Council of this Final IRP Plan should not be considered to have a precedential effect in any other ongoing docket.

ENO's 2018 IRP Action Plan appears reasonable. The Advisors recommend that the Council approve the plan subject to the following caveats: (1) consistent with Section 1.D of the IRP Rules, approval of the plan does not constitute Council approval of any specific future resource acquisition, any such acquisition must still be submitted for Council approval consistent with the Council's rules and regulations; (2) Council approval of the IRP does not preclude the Council from considering and/or ordering further actions by ENO relative to resource planning and acquisition, in particular, approval of the 2018 IRP shall have no precedential impact upon the Council's considerations in the RPS rulemaking docket (UD-19-01), the Smart Cities docket (UD-18-01) or any other future docket.

#### **IV. Advisor Recommendations for Future IRP Processes**

While the Advisors find that the Final IRP result is in compliance with the Council's requirements and should be approved subject to certain caveats, as discussed above, the Advisors do recommend a few changes that can be implemented in the Initiating Resolution for the next IRP cycle that we believe would improve the resulting analyses. First, it would be helpful for ENO to provide the parties with an estimate of the annual DSM costs for each portfolio modeled. Second, to the extent that the Council determines that it will use its own independent expert to produce a DSM Potential Study in the next IRP cycle, it would be helpful if the Council provided guidance to ENO and the independent consultant as to how to make resource portfolios produced using inputs from different studies more directly comparable. Third, the most recent DSM planning tool of the Energy Smart Third Party Administrator and Third Party Evaluator related to specific DSM measures metrics and costs, as well as the most recent results of the program years implementation plan should also be considered among the DSM inputs to the various planning strategies. Fourth, the initial total supply costs from the Aurora capacity expansion module for all optimized portfolios related to the planning scenarios and planning strategies should be provided with supporting detail. Fifth, future IRP final reports should include more detail regarding how specific various distributed energy resources impact the load forecast, with potential ranges of projected estimates. Sixth, planning strategies should include specific information reflecting Council policy contained in the RPS docket, Smart Cities docket, and other dockets related to the planning of future resources. Seventh, the qualitative analysis and subjective aspects of the IRP scorecard should be improved and updated to make the scorecard a more useful portfolio evaluation tool. Finally, the Advisors recommend that ENO be directed to utilize AURORA's modeling capability for an economic analysis of retirement dates for ENO's existing assets rather than utilizing fixed retirement dates.



**V. Conclusion**

As discussed herein, the Advisors recommend that the Council accept the Final 2018 IRP as being in compliance with the Council's requirements, approve the Final 2018 IRP, subject to certain caveats and provide certain guidance to the parties in the Initiating Resolution for the next IRP cycle.

RESPECTFULLY SUBMITTED:



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Advisors to the Council of the City of New Orleans

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing pleading has been served upon the following parties of record by electronic mail on this 2nd day of December 2019.



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