

RESOLUTION  
(AS CORRECTED)  
NO. R-17-32

CITY HALL: January 26, 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 ESTABLISHING A RULEMAKING PROCEEDING  
REGARDING INTEGRATED RESOURCE PLANNING

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”) is a public utility providing electric and natural gas service to all of New Orleans;<sup>1</sup> and

The Council's Integrated Resource Plan Criteria

WHEREAS, pursuant to the Council’s desire to have uniform Integrated Resource Planning (“IRP”) guidelines applicable to all electric utilities in its jurisdiction, on June 5, 2008,

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<sup>1</sup> On September 1, 2015, the service territory of Entergy Louisiana, LLC-Algiers was transferred to ENO. Prior to that date, ENO and Entergy Louisiana, LLC (“ELL”) both participated in this proceeding. Throughout this Resolution, “Companies” refers to ENO and ELL-Algiers, acting jointly prior to September 1, 2015 and “Company” refers to ENO representing the entire service territory within Orleans Parish after September 1, 2015.

the Council issued Resolution No. R-08-295, titled "Resolution Regarding Proposed Rulemaking to Establish IRP Components and Reporting requirements for Entergy New Orleans, Inc.;" and

**WHEREAS**, in Resolution No. R-08-295, the Council commenced a rulemaking proceeding to develop IRP components. The IRP components are intended to provide a framework to help guide ENO in its decisions to (1) develop generation resources and purchase power both individually and in conjunction with its affiliate Operating Companies pursuant to the System Agreement; (2) develop transmission and distribution facilities both individually and in conjunction with its affiliate Operating Companies pursuant to the System Agreement;<sup>2</sup> (3) develop and deploy demand-side resource options; (4) incorporate into its planning process the results of energy efficiency programs developed at the direction of the Council, (*e.g.*, the Energy Smart New Orleans program, and others as may subsequently be determined applicable); and

**WHEREAS**, Council Resolution No. R-08-295 set forth the IRP framework and reporting requirements for ENO. The Council clarified and expanded upon the IRP framework, components, and reporting requirements through the subsequent Resolution No. R-10-142, titled "Electric Utility Integrated Resource Plan Requirements of the Council of the City of New Orleans" ("Council's IRP Requirements"); and

**WHEREAS**, the Council ordered that IRPs should include a risk analysis which balances costs with risks to customers. These IRP requirements stressed the importance of the IRP process as a whole and the interdependence of matters such as renewable energy, energy efficiency, distributed generation, transmission, regional developments, price stability, environmental and climate change legislation, rather than a discrete analysis of individual issues. These requirements evaluate all resource options from the perspective of both the utility and all

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<sup>2</sup> The Council notes that the System Agreement terminated on August 31, 2016.

stakeholders, integrating both the supply- and demand-side in a fair and consistent manner while minimizing costs to all stakeholders (not just the utility), and the creation of a flexible plan that allows for uncertainty through a risk analysis permitting adjustment in response to changed circumstances; and

**WHEREAS**, the Council ordered that the IRP must consist of the following steps:

- (1) Identify the objectives and procedures including time horizon (Component 1);
- (2) Collect data needed for the planning process, including a market analysis;
- (3) Develop several demand, energy, and load profile forecasts in the detail needed to evaluate all resource options (Component 2);
- (4) Identify all stakeholder resource options on the demand-side and supply-side (Component 3);
- (5) Evaluate all demand-side resources by conducting benefit-cost analyses which include the Total Resource Cost ("TRC") test as well as the Ratepayer Impact Measure ("RIM") test, and consider any directly quantifiable environmental externalities;
- (6) Identify several options for an integrated plan by optimizing savings while recognizing constraints including transmission/distribution costs (Component 4);
- (7) Conduct uncertainty or scenario analyses for different economic and environmental circumstances, incorporating regulatory and legislative politics;
- (8) Based on these uncertainty analyses, develop a preferred resource plan that best addresses the most likely contingencies while providing flexibility for less likely scenarios;

- (9) Present the IRP (Component 5); and
- (10) Monitor, evaluate, report, and revise the IRP (Component 6); and

**WHEREAS**, the Council found that the IRP should be a combination of (a) deterministic based modeling (specific parameters and relationships for market fundamentals) and (b) stochastic modeling (ranges of values as probability distributions) for portfolio planning. This overall modeling approach is an accepted analytic approach used in resource planning considering the range of both demand- and supply-side options as well as uncertainty surrounding market pricing. To represent and account for the different characteristics of alternative types of resource options, mathematical methods, such as linear programming formulation, should be used to optimize resource decisions; and

**The 2015 Triennial IRP Process**

**WHEREAS**, in Resolution No. R-14-224, the Council established guidance for ENO's 2015 triennial IRP. In that Resolution, the Council set forth a procedural schedule requiring ENO to conduct four technical conferences at certain milestones in the process of developing the IRP in order to allow greater public input prior to the finalization of its *2015 Final Integrated Resource Plan* ("2015 Final IRP"); and

**WHEREAS**, on June 23, 2014, ENO held the first technical conference required by Resolution No. R-14-224, the Milestone 1 technical conference to address the demand-side management ("DSM") Potential Study inputs; and

**WHEREAS**, based on public input at the Milestone 1 technical conference, ENO held an interim technical conference on September 22, 2014, to address the issue of renewable resources to be included in the draft IRP; and

**WHEREAS**, ENO held the second technical conference required by Resolution No. R-14-224, the Milestone 2 technical conference to address the DSM Potential Study results, on October 30, 2014; and

**WHEREAS**, ENO held the third technical conference required by Resolution No. R-14-224, the Milestone 3 technical conference to address the IRP Modeling Results, on February 26, 2015; and

**WHEREAS**, based on public input at the Milestone 3 technical conference, ENO held an interim technical conference on May 27, 2015, to present the final results of its portfolio evaluation; and

**WHEREAS**, ENO held the fourth technical conference required by Resolution No. R-14-224, the Milestone 4 technical conference to present its Draft IRP Report to the stakeholders, on June 30, 2015; and

**WHEREAS**, ENO submitted its 2015 Draft IRP to the Intervenors and the Advisors on June 23, 2015, and the Advisors and Intervenors subsequently submitted their comments on the Draft IRP to ENO; and

**WHEREAS**, comments on the 2015 Draft IRP plan were submitted by the Advisors, the Alliance for Affordable Energy (“AAE”), the Gulf States Renewable Energy Industries Association (“GSREIA”), Green Coast Enterprises (“GCE”),<sup>3</sup> the Greater New Orleans Housing Alliance (“GNOHA”), and Building Science Innovators (“BSI”); and

**WHEREAS**, on September 18, 2015, ENO submitted its 2015 IRP Updates for the Final IRP Report to provide updates to the Council, Advisors, and Intervenors regarding the effects of the reallocation of the Union Power Station resource from a power purchase agreement to the acquisition of Power Block 1; the economic evaluation of DSM programs; and the total supply

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<sup>3</sup> The Council notes that GCE has subsequently withdrawn from the proceeding.

cost of the evaluated portfolios, including updated load and capability data for the preferred Combustion Turbine (“CT”) portfolio; and

**WHEREAS**, in response to the comments received from Intervenors and Advisors, on the draft IRP, ENO conducted a conference call with the parties on November 11, 2015, to discuss its action plan for addressing the comments in its 2015 Final IRP; and

**WHEREAS**, ENO subsequently requested and was granted an extension of time to file its 2015 Final IRP from the October 31, 2015 deadline set forth in Resolution No. R-14-224 to January 31, 2016; and

**WHEREAS**, at the conclusion of the stakeholder proceedings, ENO filed its 2015 Final IRP with the Council on February 1, 2016; and

**WHEREAS**, the Council on April 7, 2016, issued Resolution No. R-16-104 setting forth further procedural deadlines for the Council’s consideration of the 2015 Final IRP; and

**WHEREAS**, on June 15, 2016, the Advisors convened a Community Hearing in the Council Chambers to allow the public to express its views. The hearing was transcribed and the transcription was distributed to the members of the Council and entered into the record of the case; and

**WHEREAS**, on June 30, 2015, the Sewerage and Water Board (“S&WB”) filed the *Sewerage and Water Board of New Orleans’ Comments on Entergy New Orleans, Inc.’s Final 2015 Integrated Resource Plan*, (“S&WB Comments”), and on August 8, 2016, AAE filed their response to ENO’s 2015 Final IRP, styled as *An Integrated Resilience Plan for New Orleans City Council* (“AAE Comments” or “IResP”); and

WHEREAS, also on August 8, 2016, BSI filed three motions proposing pilot programs for inclusion in the 2015 Final IRP;<sup>4</sup> and

WHEREAS, ENO filed comments in response to all three parties on October 7, 2016, in *Entergy New Orleans, Inc.'s Response to Comments of the Sewerage and Water Board of New Orleans Regarding the Final 2015 Integrated Resource Plan*, (“ENO Response to S&WB”); *Entergy New Orleans Inc.'s Comments on the Alliance for Affordable Energy's Alternate IRP* (“ENO Response to the AAE”); and the *Entergy New Orleans Inc. Motion to Strike Comments Filed by Building Science Innovators, LLC, or Alternatively, Opposition to Proposed Pilot Programs* (“ENO Response to BSI”); and

WHEREAS, on November 7, 2016, the Advisors filed their *Advisor Report Regarding Entergy New Orleans Inc.'s 2015 Final Integrated Resource Plan* (“Advisor Report”); and

**Concerns Raised Regarding the IRP Criteria and Process in the 2015 IRP Proceeding**

WHEREAS, the Parties' comments and the Advisor Report raised various concerns regarding both the IRP process and the IRP criteria; and

WHEREAS, AAE argued that although it was an active and vocal participant throughout the IRP process, its contributions were largely ignored by ENO;<sup>5</sup> and

WHEREAS, AAE's final recommendations included, *inter alia*, recommendations that (1) before any resources are approved, the DSM targets established in Resolution No. R-15-599

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<sup>4</sup> See the *Motion by Building Science Innovators, LLC for a Pure Customer Lowered Electricity Price (CLEP) Pilot Within the 2015 Entergy New Orleans (ENO) Integrated Resource Plan* (“BSI CLEP Motion”), the *Motion by Building Science Innovators, LLC for one Battery Pilot Program Financed by the Customer Lowered Electricity Price (CLEP) Tariff within the 2015 Entergy New Orleans Integrated Resource Plan* (“BSI Battery CLEP Motion”), and the *Motion by Building Science Innovators, to the New Orleans City Council to Require Entergy New Orleans (ENO) to Cooperate with a Solar Energy Generator of a Size Between 1 and 2 MW sited within the Distribution System of ENO and Organized as a Community Solar Farm so that Its Clients Will be Compensated Via the Customer Lowered Electricity Price (CLEP) Tariff in an Automated Fashion with Appropriate, Monthly, Utility-Bill Credits within the 2015 ENO Integrated Resource Plan* (“BSI Community Solar Motion”).

<sup>5</sup> *Id.* at 18.

must be evaluated to determine their impact on future load projections and resource adequacy requirements; (2) criteria should be established that can be used to compare the resilience, environmental, and economic development impacts of various combinations of resource additions;<sup>6</sup> and

**WHEREAS**, the AAE proposed an alternative Resiliency Rubric for New Orleans that would include the following criteria: (1) risk of fuel spikes; (2) environmental justice score; (3) economic impact to New Orleans; (4) ability to provide emergency power; (5) offsets transmission islanding; and (6) flood risk, and proposed a methodology for implementing each criteria;<sup>7</sup> and

**WHEREAS**, the Council takes note that several members of the public who attended the June 15, 2016 Community Hearing argued for greater community involvement and transparency in the IRP process;<sup>8</sup> and

**WHEREAS**, ENO argued in its reply comments that the S&WB's input came very late in the process and disputes the S&WB's criticisms of the IRP;<sup>9</sup> and

**WHEREAS**, ENO also argued in its reply comments that many of the AAE's criticisms should have been made much earlier in the stakeholder process and that the AAE's alternate IResP fails to meet even the basic requirements for IRP and appears to employ an "anything but NOPS" approach to resource planning;<sup>10</sup> and

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<sup>6</sup> *Id.* at 110.

<sup>7</sup> AAE Comments at 50-52.

<sup>8</sup> *Integrated Resource Plan Community Hearing*, Docket No. UD-08-02, Tr. At 37:7-17, 41:19-24, 49:3-11, and 57:15-20 (June 15, 2016).

<sup>9</sup> ENO Response to S&WB at 1.

<sup>10</sup> ENO Response to the AAE at 1.



WHEREAS, ENO opposed the AAE's proposed Resiliency Rubric as an alternative to ENO's 2015 Final IRP.<sup>11</sup> ENO argued that the AAE's proposal fails to meet even basic requirements for IRP, such as accounting for costs;<sup>12</sup> and

WHEREAS, ENO argues that stakeholder comments regarding the inputs, assumptions, and methods of the modeling should have happened in Milestones 1 and 2, and were offered out of time and should be disregarded;<sup>13</sup> and

WHEREAS, ENO argued that the IResP plan is not, as the AAE claimed, an "alternative plan" that fulfills the Council's "prescribed legal standards for integrated resource planning."<sup>14</sup> ENO argued that the very first objective of IRP set forth in Resolution No. R-10-142 is "to provide New Orleans ratepayers with reliable electricity at the lowest practicable cost" but that the AAE failed to meet this criteria by failing to perform any production cost modeling of the portfolios presented.<sup>15</sup> ENO also noted that the AAE's modeling of the DSM targets in each of the portfolios does not purport to assign estimates for the cost of achieving the targets;<sup>16</sup> and

WHEREAS, ENO argued that the AAE's "Resiliency Rubric" has not been appropriately vetted, analyzed, or developed;<sup>17</sup> and

WHEREAS, the Advisors stated that the IRP process can and should be improved and noted the primary areas of concern are:

1. The inability to achieve consensus early on in the IRP process with respect to demand-side, supply-side, and environmental assumptions was problematic; and

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<sup>11</sup> ENO Response to AAE at 1.

<sup>12</sup> *Id.* at 1-2.

<sup>13</sup> *Id.* at 2-6.

<sup>14</sup> *Id.* at 6.

<sup>15</sup> *Id.* at 6-7.

<sup>16</sup> *Id.* at 7.

<sup>17</sup> *Id.* at 37.

2. The perception by stakeholders that their input and comments are being dismissed by ENO without adequate consideration; and<sup>18</sup>

**WHEREAS**, the Advisors recommended that the Council may wish to consider the certain recommendations which seek to either safeguard the ratepayers or improve the IRP process in the future, including, *inter alia*.<sup>19</sup>

1. The next ENO DSM Potential Study developed for use in the IRP must achieve greater consensus regarding the DSM supply curve and the achievable DSM and associated cost by program prior to formulating the DSM inputs to the IRP process. In the 2012 IRP, DSM Working Groups held frequent technical discussions and teleconferences in an attempt to identify differences in position early in the IRP timetable. The concept of a DSM Working Group should be considered as one alternative to reaching greater consensus regarding the amount of achievable DSM and associated cost.
2. ENO should be reminded that it should include, in its Energy Smart filings (Program Year 7 and beyond), 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.
3. Future IRP filings should include, 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.

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<sup>18</sup> Advisor Report at 1.

<sup>19</sup> *Id.* at 74-75.

4. While future IRPs should still attempt to seek consensus among stakeholders on all modeling parameters, the concept of developing an additional macroeconomic scenario early on in the IRP process which includes stakeholder input assumptions should be considered, especially for use in areas where consensus seems unattainable.
5. Transmission planning should be more fully integrated into the IRP process to ensure that transmission solutions as alternatives to supply-side and demand-side resources are evaluated and that any reliability concerns are addressed.
6. To ensure that demand-side resources are compared on an equal footing with supply-side resources in future IRPs, all supply-side and demand-side resource alternatives should be made available to AURORA's optimization engine concurrently such that AURORA can choose an optimal combination of resources.

**WHEREAS**, the Advisors stated that they share ENO's concerns that the AAE's Resiliency Rubric and proposed portfolios were not sufficiently supported with the necessary analysis to warrant being pursued by the Council, and did not even attempt to meet the Council's criteria for an IRP;<sup>20</sup> and

**WHEREAS**, the Advisors stated that while they do appreciate that some of the factors suggested in the Resiliency Rubric may have merit and warrant further consideration, it would not be appropriate to do so as part of evaluating the 2015 Final IRP.<sup>21</sup> The Advisors recommended that to the extent that parties seek to argue that the Council's IRP Requirements should be changed, the appropriate manner of doing so would be to conduct a rulemaking

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<sup>20</sup> Advisor Report at 69.

<sup>21</sup> *Id.*

process that could affect a change to the Council's IRP Requirements prior to the next triennial IRP filing (expected in 2018);<sup>22</sup> and

**WHEREAS**, the Council takes note that ENO performed a sensitivity analysis of several inputs in the 2015 IRP, but did not do any analysis of portfolio costs versus risks to customers with any stochastic modeling as mentioned in the existing Council's IRP Requirements; and

**WHEREAS**, the rulemaking process would necessarily consider specific modifications and/or additions to the six components defined under the Council's IRP Requirements as set forth in Resolution R-10-142, including but not limited to the requirements "to evaluate all resource options from the perspective of both the utility and all stakeholders", "minimizing costs to all stakeholders (not just the utility)", "allow for uncertainty through a risk analysis", and clearly identify customer-owned resources in the "demand, energy, and load profile forecasts in the detail needed to evaluate all resource options"; and **WHEREAS**, the Council finds that changes to the Council's IRP Requirements are beyond the scope of the proceedings considering ENO's triennial IRP filings; and

**WHEREAS**, in addition, the Council does not believe there was adequate opportunity within the 2015 IRP proceeding for parties to review and comment upon the various proposals put forth to improve the Council's IRP Requirements and process; and

**WHEREAS**, the Council is nevertheless interested in considering the proposals by the parties to change the Council's IRP Requirements , but only if the parties propose specific language to amend or modify the provisions of Resolution R-10-142, encompassing the Council's IRP Requirements ; and

**WHEREAS**, to improve the stakeholder input to enable a more efficient and effective IRP process, the rulemaking proceeding will consider specific additions regarding procedure,

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<sup>22</sup> *Id.*

deliverables, working groups, benchmark objectives, and any other additions that could be appropriately incorporated in the Council's IRP Requirements; and

**WHEREAS**, the Council remains concerned regarding the continued inability of ENO and the stakeholders to reach consensus regarding the development of the IRP; and

**WHEREAS**, in order to carefully consider these issues and to allow all proposals to be more fully vetted, the Council will establish a rulemaking proceeding to consider proposed changes to both the Council's IRP criteria and process; now therefore:

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

**THAT:**

1. The Council hereby establishes Docket No. UD-17-01 to consider changes to the Council's IRP Requirements (attached as Appendix A) and triennial IRP process.
2. The Council appoints the Honorable Jeffrey Gulin as Hearing Officer in this docket, who shall, for good cause shown and as required by the circumstances of the proceedings, have authority to change or amend the procedural dates set forth herein. To the extent that the City Clerk's office closes before 5:00 pm on the date of any deadline contained herein, the deadline shall be extended to the next business day.
3. The following procedural schedule is adopted:
  - a. ENO, the Council's Advisors, and all of the Intervenors in Docket No. UD-08-02 (Jacobs Technology Inc., The Folger Coffee Company, USG Corporation, the Sierra Club, the Alliance for Affordable Energy, Gulf States Renewable Energy Industries Association, Posigen Solar Solutions, Building Science Innovators LLC, South Coast Solar, LLC, Air Products

and Chemicals, Inc., the Greater New Orleans Housing Alliance, and the Sewerage and Water Board of New Orleans) are designated or deemed parties to these proceedings. Additionally, any party not herein designated as a party shall have until February 15, 2017 to file an intervention in this docket. Persons desiring to intervene shall do so by filing an intervention request with the Clerk of Council, with a copy submitted to the Director, Council Utilities Regulatory Office, Room 6E07 City Hall, 1300 Perdido Street, New Orleans, LA 70122; and to all persons on the Official Service List of this docket, which can be obtained from the Council Utilities Regulatory Office. All fees associated with the filing of interventions are hereby waived, in accordance with Section 158-286 of the City Code. Objections to interventions requests shall be filed within 7 days of such requests. Timely-filed intervention requests not objected to within that time period shall be deemed **GRANTED**.

- b. By February 24, 2017, Parties interested in proposing changes to the Council's IRP Requirements (attached as Appendix A) or to improve the Council's IRP process for the development and consideration of the triennial IRP submittals should submit specific language which amends or modifies the Council's IRP Requirements or improves the Council's IRP process. Specific language must be proposed if the Council is to consider any such modifications or amendments.
- c. Parties shall submit their reply comments responding to proposed changes by March 27, 2017.

d. The Advisors shall file an Advisors Report regarding the proposed changes by April 25, 2017.

**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.**

THE FOREGOING IS CERTIFIED  
TO BE A TRUE AND CORRECT COPY

*Lera W. Johnson*  
CLERK OF COUNCIL

**ELECTRIC UTILITY INTEGRATED RESOURCE PLAN REQUIREMENTS**  
of the  
**Council of the City of New Orleans**

Council Resolution R-08-295 set forth an Integrated Resource Planning framework and reporting requirements for Entergy New Orleans, Inc. Through Council Resolution R-10-142 and this document, the Council of the City of New Orleans clarifies the components required with respect to Integrated Resource Plan ("IRP") filings, revises the reporting requirements filing periods and deadlines, and expands the IRP filing requirements to all electric utilities subject to the Council's jurisdiction ("Utility[ies]").

The IRP should include a risk analysis which balances costs with risks to customers. These IRP requirements stress the importance of the integrated resource planning process as a whole and the interdependence of matters such as renewable energy, energy efficiency, distributed generation, transmission, regional developments, price stability, environmental and climate change legislation, rather than a discrete analysis of individual issues. These requirements evaluate all resource options, from the perspective of both the Utility and all stakeholders, integrating both the supply- and demand-sides in a fair and consistent manner while minimizing costs to all stakeholders (not just costs to the Utility), and the creation of a flexible plan that allows for uncertainty through a risk analysis permitting adjustment in response to changed circumstances.

The IRP must consist of the following steps, which are defined fully in the subsequent sections:

- 1) Identify the objectives and procedures including time horizon (Component 1);
- 2) Collect data needed for the planning process, including a market analysis;
- 3) Develop several demand, energy and load profile forecasts in the detail needed to evaluate all resource options (Component 2);
- 4) Identify all stakeholder resource options on the demand-side and supply-side (Component 3);
- 5) Evaluate all demand-side resources by conducting benefit-cost analyses which include the Total Resource Cost test as well as the Ratepayer Impact Measure test, and considering any directly quantifiable environmental externalities;
- 6) Identify several options for an integrated plan by optimizing while recognizing constraints including transmission/distribution costs (Component 4);
- 7) Conduct uncertainty or scenario analyses for different economic and environmental circumstances, incorporating regulatory and legislative policies;
- 8) Based on these uncertainty analyses, develop a preferred resource plan that best addresses the most likely contingencies while providing flexibility for less likely scenarios;
- 9) Present the IRP (Component 5); and
- 10) Monitor, evaluate, report, and revise the IRP (Component 6).



The IRP should be a combination of (a) deterministic based modeling (specific parameters and relationships) for market fundamentals, and (b) stochastic modeling (ranges of values as probability distributions) for portfolio planning. This overall modeling approach is an accepted analytic approach used in resource planning considering the range of both demand and supply side options as well as uncertainty surrounding market pricing. To represent and account for the different characteristics of alternative types of resource options, mathematical methods such as a linear programming formulation should be used to optimize resource decisions.<sup>1</sup>

### **Component 1 - IRP Objectives**

The IRP shall state and support specific objectives to be accomplished, which include but are not limited to the following: (1) to optimize the integration of generation and transmission services with demand-side resource options to provide New Orleans ratepayers with reliable electricity at the lowest practicable cost; (2) to promote the Utility's financial integrity; (3) to anticipate and mitigate risks associated with increasing fuel costs and other economic changes; (4) to comply with regulatory requirements and policies; and (5) to evaluate the appropriateness of incorporating advances in technology, including a careful mix of new renewable resources. Another important objective of resource portfolio procurement is to achieve a specified range of acceptable risk in the trade-off between price and risk.

The IRP shall demonstrate how the Utility achieves or will achieve these objectives. In doing so, the IRP shall address the following: (1) supply-side resources such as generation development, purchased power, and distributed generation; (2) demand-side resource options such as interruptible load and energy efficiency program initiatives; (3) use of the transmission and distribution systems to deliver power to New Orleans; and (4) any other factors identified by the Utility as necessary to achieve the Utility's listed objectives.

The IRP shall identify and quantify the costs and benefits of its resource portfolio and compare those to alternatives available in the market. In addition to economic costs, the IRP shall assess any directly quantifiable social and environmental effects of its choices.

In the identification and presentation of the preferred IRP plan, it is important that the Utility develop alternatives to the preferred plan or, at a minimum, perform analyses that show the cost impact of utilizing alternative probable input assumptions while holding the resource plan constant. These sensitivity analyses need to be presented in the Utility's IRP filing so that the Council can comprehend the robustness of the preferred plan and the range of possible outcomes to the extent that the Utility's reference planning assumptions do not hold true. The Council anticipates that assumptions regarding load growth, fuel price, adoption and penetration of

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<sup>1</sup> Linear programming is a mathematical method or model of optimizing linear functions or relationships within constraints to achieve the lowest costs.

demand-side programs, and environmental regulation, may be appropriate for sensitivity analyses. An initial step in resource portfolio planning must be market outlooks or forecasts of costs, prices, and other input variables, as well as measures of their uncertainty, expressed as possible future price ranges along with associated probabilities and the correlations among them. Estimated market prices will be used to analyze potential conservation initiatives and available supply-side resources to meet forecasted resource requirements. The market analysis must include all expected price and price ranges assumed through the planning period.

Additionally, as the electric utilities under the Council's jurisdiction are currently parties to the Entergy System Agreement among the Entergy Operating Companies, the Utility should consider any certain or probable changes to the Entergy System Agreement, parties to the System Agreement, or alternative cost sharing arrangements that are currently being contemplated.

As utility system planning typically utilizes a cumulative present worth analysis to rank planning scenarios, it is important that the Utility present not only the cumulative present worth of the reference planning scenario and sensitivities, but the annual estimates of costs that result in the cumulative present worth so that the Council may understand the timing of costs and savings under alternative scenarios.

### **Component 2 - Demand and Energy Use Forecast**

The IRP shall provide an annual demand (MW) and energy use (kWh) forecast ("Forecast") for no less than a rolling ten-year planning horizon. The Utility shall identify all assumptions relied upon in developing its Forecast. The IRP shall identify forecasted energy use by customer class.

Data supplied with the forecast shall include:

- 1) Historical demand and energy data for the Utility for the ten (10) years immediately preceding the forecast period;
- 2) A reference planning scenario forecast, a low growth planning scenario forecast, and a high growth planning scenario forecast;
- 3) A discussion of the forecasting methodology and a list of key independent variables utilized to develop the reference planning scenario forecast;
- 4) Forecasts of the key independent variables utilized in developing the reference planning scenario forecast, low growth planning scenario forecast, and high growth planning scenario forecast;
- 5) Forecasted demand and energy usage by customer class under the reference planning scenario forecast, with the supporting development from the forecasted key independent variables;

- 6) Construction of the composite of customer load profiles based on the forecasted demand and energy usage by customer class and relevant load profile data, including the factors which determine future load levels and shape; and
- 7) To the extent the utility is a party to the Entergy System Agreement or other cost sharing arrangement among the Entergy Operating Companies where costs are allocated on the basis of demand or energy, the Utility should supply the reference planning scenario demand and energy forecasts and coincident peak demand forecasts for the Utilities who are parties to the cost sharing arrangements.

### **Component 3 – Supply- and Demand-Side Resources**

The IRP shall identify and evaluate the Utility's existing resources used to serve New Orleans ratepayers load based on their cost, including resources used to serve base-load and incremental demand. These costs shall include fixed and variable costs (e.g., fuel), the cost of current and future emissions controls (to the extent practicable), and other costs identified by the Utility. The IRP shall include a comparison of current costs to annual costs incurred for the previous ten (10) years.

The IRP shall identify and quantify the success of its efforts to develop and implement programs that promote energy efficiency, conservation, demand-side management, distributed generation, interruptible load, and price responsive demand. To the extent the Utility has not achieved its objectives identified as part of the IRP, the IRP shall include a time-line indicating when the Utility anticipates achieving those objectives.

The IRP shall incorporate quantifiable energy efficiency and conservation results implemented under the Energy Smart New Orleans program following program implementation.

The IRP shall consider the types and combination of resources relied upon to ensure a reliable, balanced resource portfolio that incorporates factors including but not limited to fuel cost forecasts, anticipated load growth, environmental risk, timing and changes to the total revenue requirements to New Orleans ratepayers, the Utility's continued financial integrity, and relevant conditions outside the Utility's control. The IRP shall identify different portfolios considered and compare the costs of those portfolios to the portfolio of resources relied upon by the Utility.

To the extent the Utility anticipates altering its resource portfolio during the ten-year planning period, the IRP shall (1) identify the specific changes in resources anticipated, (2) the resultant change in costs to New Orleans ratepayers, and (3) a time-line for and description of those changes including the process the Utility relied upon to ensure that the new resource portfolio will provide New Orleans ratepayers with reliable electricity at the lowest practicable cost.

The data supplied in the Utility's IRP filing shall include:

- 1) A table depicting all of the Utility's existing supply-side and demand-side resources, anticipated capacity available at time of peak, and planning retirement date or resource contractual termination date;
- 2) A table showing the reference planning scenario demand forecast and planning reserve in comparison with the Utility's existing resources;
- 3) A monthly reference planning scenario fuel price forecast for all fuels considered for utilization in all existing and potential supply-side resources;
- 4) Alternative fuel price forecasts for fuels for which a significant variability in price could be expected;
- 5) A monthly forecast of on-peak and off-peak energy prices in the market which is consistent with the reference planning scenario fuel price forecast;
- 6) A description of each supply-side resource considered including a technology description, operating characteristics and limitations, capital cost or demand charge, fixed operation and maintenance costs, variable charges, variable operation and maintenance costs, operating characteristics, earliest date available to provide supply, expected life or contractual term of resource, and fuel type with reference to fuel forecast. Supply options must include non-utility sources of power (e.g., bulk power purchases from independent power producers and cogenerated power).
- 7) A description of each demand-side resource considered including a description of the resource or program, expected penetration levels by planning year, and results of appropriate cost benefit analyses and acceptance tests which are consistent with the planning assumptions utilized within the IRP planning process. At a minimum, the Total Resource Cost ("TRC") test, based on a total stakeholders' perspective, as well as the Ratepayer Impact Measure ("RIM") test<sup>2</sup>, defining the impacts on revenue requirements to ratepayers, should be used for initial screening of resource options. The cost effective demand response programs should include those programs enabled by the "smart grid" and the associated deployment of Advanced Meter Infrastructure ("AMI"). For those options where implementation of a managed resource may necessitate the approval of cost recovery mechanisms associated with the implementation, include all timing and cost impacts on revenue requirements.
- 8) The results of any Requests for Proposals for power supply that were conducted within the past three years;
- 9) A description of the Utility Preferred Resource Plan ("UPRP") to meet the forecasted loads of the Utility(ies) and a table showing the supply-side and demand-side resources that are planned and their principal rationale for selection (i.e., supply peak demand,

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<sup>2</sup> California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, State of California Governor's Office of Planning and Research, July 2002

- supply non-peak demand or operational constraints, achieve more economical production of energy);
- 10) A schedule of costs showing the annual total demand related costs, energy related costs, and total supply costs associated with the UPRP;
  - 11) If the UPRP is not the least cost plan, the Utility shall provide the basis for rejecting the least cost plan and provide a schedule of costs showing the annual total demand related costs, energy related costs, and total supply costs associated with the least cost plan.
  - 12) An analysis of the rate impacts of the UPRP on the Utility's ratepayers including the timing of increased revenue requirements;
  - 13) A schedule of identifying, for the planning horizon, annual payments or receipts under each service schedule of the Entergy System Agreement with consideration of any Operating Companies that have submitted a notice to terminate participation in the Entergy System Agreement;
  - 14) To the extent an alternate cost sharing arrangement, other than the Entergy System Agreement, among the Operating Companies is considered or anticipated, the Utility must provide a description of the alternate arrangement, a list of the Operating Companies assumed to be participating, and a schedule of payments and receipts under each of the cost sharing components of the alternate arrangement.
  - 15) A risk assessment of the UPRP is required to evaluate the riskiness of alternative portfolios using the range of potential costs along with their associated probabilities. The IRP must provide an evaluation of various resource mixes showing both the expected outcome in terms of average price and the potential range of outcomes around the expected price. The IRP should present the expected cost per MWh of the UPRP in selected future years, along with the range of annual average costs foreseen for the 10th and 90th percentiles of simulated possible outcomes. Those ranges should be the result of iterations or simulations performed for the selected years, in which the possible outcomes are drawn from distributions that describe market expectations and volatility as of the current filing date. For example, the widely used Monte Carlo-style analysis varies renewable resources, load projections, forced outages, environmental costs, and gas price data with multiple iterations of potential future conditions.<sup>3</sup> The simulation results should be used to estimate the regional electric market, and the iterations collectively form the UPRP of the IRP. Identify the trade-off between risk and cost similar to finding the optimal mix of risk and return, but the trade-off is future costs against resource cost variation.
  - 16) A discussion and presentation of results for each alternative planning scenario considered, including a schedule of costs showing the annual total demand related costs,

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<sup>3</sup> Monte Carlo modeling involves the use of simulated random sampling of possible conditions to project how the system can be expected to perform in terms of economics.

energy related costs, and total supply costs associated with each alternative planning scenario; and

- 17) An implementation plan and timeline including all major steps necessary to implement the preferred plan; scenarios of resource portfolio options are used to identify tipping points that would change the UPRP under alternative conditions. The scenarios should identify changes to underlying assumptions that could alter the UPRP, such as changes to load growth, capital costs, resource upgrades, the emergence of other small renewable projects and resource alternatives. Demand-side/load management options would be dispatched in an optimal manner similar to the dispatch of utility generating units.

#### **Component 4 - Integration of Delivery**

The IRP shall explain how Entergy's current transmission system, and any planned transmission system expansions, and the Utility's distribution system are integrated into the overall resource planning process to optimize the Utility's resource portfolio and provide New Orleans ratepayers with reliable electricity at the lowest practicable cost. To the extent major changes in the operation or planning of the transmission system are contemplated in the planning horizon, the Utility should describe the anticipated changes and provide an assessment of the cost impact to the Utility.

#### **Component 5 - Public Presentation of IRP**

The Utility shall make its IRP available for public review subject to the provisions of Council Resolution R-10-142.

#### **Component 6 - Reporting Requirements and Council Resolutions**

In addition to its triennial IRP filing, the Utility shall file IRP status reports intended to provide the Council with an update on the Utility's progress in meeting the objectives established in the IRP. The Utility shall file its initial IRP status report fifteen (15) months following the Council's initial approval of The Utility's IRP and shall file subsequent IRP status reports every eighteen (18) months thereafter. The Council reserves the right to issue subsequent resolutions requiring the submission of additional filings and informational reports to ensure compliance with these IRP requirements.

The reports should compare: (a) actual resource portfolio performance for the current period with the previous period and (b) actual resource portfolio performance with the annual portfolio expectation.

The Council will consider the Utility's IRP status reports, implementation of the requirements and the Utility's success in achieving its objectives in rate-making proceedings that address among other things the prudence of costs incurred by the Utility to construct generation, and purchase and deliver electricity.