

February 27, 2017 Via Hand Delivery

Ms. Lora W. Johnson, CMC Clerk of Council Room 1E09, City Hall 1300 Perdido Street New Orleans, LA 70112

RE: Resolution Regarding Proposed Rulemaking to Establish Integrated Resource Planning Components and Reporting Requirements for Entergy New Orleans, Inc., Docket No. UD-08-02

Dear Ms. Johnson,

Please find attached the Alliance for Affordable Energy's comments for the above mentioned docket. Please accept this original, and three (3) copies of this filing into the official record.

Respectfully submitted,

Logan A. Burke Executive Director Alliance for Affordable Energy

Cc: 17-01 Service List via e-mail

BEFORE THE

COUNCIL OF THE CITY OF NEW ORLEANS

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IN RE: RESOLUTION AND ORDER ESTABLISHING A RULEMAKING PROCEEDING REGARDING INTEGRATED RESOURCE PLANNING

DOCKET NO. UD-17-01

PROPOSED AMENDMENTS TO THE COUNCIL'S INTEGRATED RESOURCE PLANNING REQUIREMENTS BY THE ALLIANCE FOR AFFORDABLE ENERGY

The Alliance for Affordable Energy ("the Alliance") respectfully submits these comments and language amendments into the above mentioned docket. We appreciate the opportunity the Council has afforded intervenors to offer recommendations for specific language changes to the Council's current Integrated Resource Planning (IRP) rulemaking. For nearly 10 years the Council has directed Entergy New Orleans, Inc, to develop thoughtful IRPs in order to better serve the ratepayers of Orleans Parish. The 2015 IRP cycle was fraught with difficulties and disagreements, that this round of rulemaking seeks to solve. It is in a spirit of collaboration and the public interest that the Alliance continues to work toward better planning processes in New Orleans. In the attached document please find our language recommendations for change. Below, please see some general themes the Alliance believes are vital in this rulemaking proceeding.

- The Alliance recommends a technical conference/workshop between this filing and the reply-comment filing currently described in Resolution R-17-32 in order to better clarify the objectives, procedure, and roles in the forthcoming IRP cycle.
- 2) The Alliance recommends more meaningful public participation and engagement in the IRP process, to include opportunities for public questions, answers, and where appropriate and in the public interest, the adoption of input.
- 3) The Alliance recommends a collaborative Working Group, convened throughout the IRP cycle to offer recommendations and in an attempt to reach consensus with the utility on

items like Demand Side Management inputs, cost assumptions for fuel, renewable/non renewable resources, all environmental and social costs and benefits, etc.

- 4) The Alliance recommends the utility's IRP consider other planning processes underway in Orleans Parish and the region, including but not limited to Resilience, Climate, and coastal planning, other public utility system planning in Orleans Parish.
- 5) The Alliance recommends the utility explicitly include reliability and resilience considerations in the IRP, to include standards set forth by agencies like NERC and MISO. Until this point, New Orleans IRP have been focused on capacity criteria without concern for service reliability and resilience in the face of increasingly impactful storms to the detriment of their customers.
- 6) The Alliance recommends the council take Interim Actions during the course of the IRP cycle in order to avoid conflict among the parties and offer clarity for the utility at the conclusion of future IRP cycles.
- The Alliance recommends the utility's final IRP report includes at least three (3) fully modeled portfolios, as directed by the Council's vision and priorities.
- 8) The Alliance recommends the Council's Concluding Action include the selection of one of the utility's portfolios, and direction to the utility to develop an action plan for implementation of the portfolio, if the Council chooses to accept the final IRP.

The Alliance reserves the right to offer additional language amendments with reply comments, and in any technical conference that may take place. We appreciate the opportunity to improve New Orleans energy future. The utility should be directed to make these improvements to their planning process in order to better serve the public good. Respectfully Submitted,

 $\propto \alpha$ logan A. Burke

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ELECTRIC UTILITY INTEGRATED RESOURCE PLAN REQUIREMENTS

of the

Council of the City of New Orleans¹

Council Resolution R-08-295 set forth an Integrated Resource Planning framework and reporting requirements for Entergy News Oceans, Inc, followed by Council resolution R-10-142 and a requirements document. Through Council Resolution R-10-142-R-17-32 and this document, the Council of the City of New Orleans further clarifies the components required with respect to Integrated Resource Plan ("IRP") filings, and revises the reporting requirements filing periods and deadlines. The Council recognizes that changes in resources, markets, and utility planning systems may further impact these rules. Further IRP rulemakings may be initiated from time to time to make adjustments accordingly or in response to lessons learned during future IRP cycles.² and expands the IRP filing requirements to all electric utilities subject to the Council's jurisdiction Utilities.

The IRP should identify and evaluate all existing and new resource options to meet the Council's expressed policy objectives³. Primary policy objectives for the IRP are least cost planning, reliability, advancement of demand side management and clean energy goals, and transparent consideration of how risks to customers and the Utility are balanced. 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 and multiple portfolios developed expressly to balance identified risks and the Council's policy goals.

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);

¹ The Alliance submits this document of language recommendations for the Integrated Resource Plan Rulemaking, with clarifying footnotes where necessary.

² It should be noted that previous resolutions defining deadlines (currently October 2018, and following triannually) for the filing of final IRP should not be deterministic of the timeline for this and future IRP cycles, as changes, including system planning, will impact the time necessary for completion of an IRP cycle.

³ By making the IRP process a matter of public concern and involvement, the New Orleans City Council, as utility regulators, are able to incorporate a broader set of community priorities and policy considerations than would be considered by the Utility alone.

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, and report on prior planning cycles' forecasting compared with their outcomes (Component 2);

4) Identify and include valid input from all stakeholders resource options on factors related to data inputs, methodologies, and other the demand-side and supply-side resource considerations (Component 3)

5) The evaluation of demand side management potential and cost-benefit shall be conducted by an Independent Evaluator based principally on use of the Evaluate all demandside resources conduct benefit-cost analyses which include the Total Resource Cost test-as well as the Ratepayer Impact Measure test,⁴ and considering any reasonably directly quantifiable⁵ non-energy benefits and environmental externalities. Evaluation of benefits must include all benefits as developed by the Working Group. Resource alternatives are to be evaluated in a manner that attempts to fairly assess all identifiable benefits.

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 at least three a preferred Alternative Portfolio resource plans that best addresses the most likely contingencies while providing flexibility for less likely scenarios while fulfilling the Council's stated objectives;

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.¹

Definitions-

1) "Advanced Metering Infrastructure" (AMI) refers to meters and their underlying technology that records customer usage for time intervals of one hour or less, and can

⁴ The Ratepayer Impact Measure test is inconsistent with the function of long-term resource comparison.

⁵ These requirements refer to "reasonably quantifiable" non-energy benefits, which may merit consideration and consensus by the Working Group.

transmit information to the Utility without the need for a human meter reader. The meter allows for two-way flow of information and can notify the Utility of a power outage, can facilitate demand response programs.

- 2) "Alternative Portfolios" refers to prescribed combinations of supply- and demand- side resources for comparative evaluation in IRP modeling and reporting.
- 3) "Baseline load forecast" refers to a load forecast of electricity demand and consumption that takes into account currently implemented demand-side resources, and the expiration of installed resources, but does not include any anticipated or required future demand-side resources.
- 4) "Council" refers to the New Orleans City Council and the New Orleans Utility, Cable Telecommunications and Technology Committee, the decision-making regulatory body for Investor Owned Utilities in Orleans Parish.
- 5) "Demand Side Resource" refers to a program administered by ENO to reduce retail customer consumption (MWh) or shift or shave the time of consumption of energy (MW) from end users, including energy efficiency programs, demand response programs, and distributed generation.
- 6) "Demand Response Program" (DR) refers to a program that seeks to modify customer loads to reduce or shift loads from hours with high electricity costs or reliability constraints. Demand Response programs may include but not be limited to: Direct Load Control, Critical Peak Pricing, Time-Of Use (TOU) rates, or any other rate design to send market signals to customers to encourage efficient electricity consumption, or any other programs that shift loads from higher- to lower- energy cost times that may become available through the deployment of AMI or other technologies.
- 7) "Distributed Energy Resources" (DERs) refers to generation or energy storage facilities owned or leased by retail customers and located on the customer side of the meter, that is primarily for the use and consumption of energy by the retail customer. Distributed Energy Resources may include renewable/non-renewable generators, combined heat and power, and storage technology including electric vehicles, and any other technology that may similarly serve or dispatch energy from the customer side of the meter.
- 8) "DSM Targets" refers to Council required minimum levels for demand side management resources.
- 9) "Independent Evaluator" refers to an independent consultant retained by the Council to evaluate aspects of utility planning or programs, such as to develop and verify cost assumptions and analysis conducted by the Utility related to DSM targets, load forecasting, cost assumption inputs, as well as related modeling and analysis methods and other factors as needed by the Council and Working Group.

- 10) "Integrated Resource Plan" is an open, public process through which all relevant supplyside and demand-side resources (including energy efficiency), and the factors influencing choice among them, are investigated for the optimal set of resources to meet current and future electric service needs at the lowest total cost to customers and the Utility, in a manner consistent with the long-run public interest, given the expected combination of costs, risks and uncertainty".
- 11) "Interested Party" is a formal party to the IRP process who is distinct from the designation of Intervenor. Interested parties are included on the service list but do not file comments into the record. Subject to approval, Interested Parties may request the opportunity to participate in Working Group meetings and access to confidential information.
- 12) "Interim Council Action" refers to Council decisions made between the Council's initiating resolution and the Council's concluding action on the IRP.
- 13) Least-cost planning refers to integration of supply and demand side options, requires consideration of other than internal costs to the Utility in determining what is least-cost, and involves Council, the customers, and the public prior to the making of resource decisions rather than after the fact.
- 14) "Market Purchase" refers to purchases made through the Resource Auctions, both annual and day-ahead, coordinated by MISO, the Utility's Independent System Operator.
- 15) "Market Sales: refer to sales of energy or capacity from ENO owned and contracted resources to MISO or any other customer besides ENO ratepayers.
- 16) "Planning Reserve Margin" refers to the reserve margin required to operate the utility system reliably. In each IRP, ENO shall set forth the expected reserve margin and describe the basis for the target margin selected.
- 17) "Power Purchase Agreement" refers to a transaction to purchase wholesale capacity and/or energy from an independent power producer, as approved by the Council.
- 18) "Portfolio" shall describe a suite of supply-side, demand-side and transmission resources that best serves the utility customers' needs under a given forecast and scenario.
- 19) "Supply-Side Resource" shall mean an electric generation, transmission, or distribution facility, either owned or operated by ENO, or the output of which is purchased (through a PPA) at wholesale costs by the Utility.
- 20) "Working Group" refers to a group of intervenors and interested parties working in collaboration with the Utility, Advisors, and CURO to reach consensus and develop recommendations ahead of Interim Council Actions.

Component 1- IRP Objectives and Procedures

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 demand-side resources, generation, distribution, and transmission services with demand-side resource options to provide New Orleans ratepayers with reliable electricity that optimizes costs and benefits at the lowest practicable cost; (2) to anticipate and mitigate risks, such as associated with increasing fuel costs and other economic changes; (3) to comply with regulatory requirements, and policies and include related costs of compliance; and (4) to maintain promote the Utility's financial integrity; (5) to evaluate the appropriateness of incorporating advances in technology, including, but not limited to, a careful mix of new renewable energy, storage, and distributed resources; (6) to integrate the Utility's planning with other New Orleans policy or utility planning, including but not limited to climate, resilience, water, gas, and coastal planning in order to meet stated goals of the City of New Orleans; (7) improve transparency and inclusion of stakeholder engagement with energy planning; Another important objective of resource portfolio procurement is to (8) Identify achieve a specified range of acceptable risk in the tradeoff between price and risk in order for Council to make fully informed decisions based on policy priorities 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 owned by the Utility; (2) demand-side resource options such as interruptible load, distributed energy resources located on the customer side, and energy efficiency program initiatives; (3) use of the transmission and distribution systems to deliver power to New Orleans⁶; and (4) any other factors identified by the Utility as necessary to achieve the Utility's listed Council's 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. The IRP stakeholder process shall be used to identify appropriate cost measurements for social and environmental costs, for example social costs and benefits like jobs, economic impacts, etc.

Verifiability is a key objective of the New Orleans IRP process. ENO is directed to provide access to the information required to enable verification by the parties in a complete and timely manner, to use confidentiality designations in the most selective manner possible consistent with the Council's guidelines for such designations, and to coordinate with the Working Group

⁶ The Alliance has highlighted sections of the Council's original language in blue that we support, but where it does not appear ENO has fulfilled such requirements in previous filings.

to enable maximum opportunity to understand and verify the methods used in the resource modeling process.

Portfolios

The IRP shall include at least three (3) fully modeled portfolios, consistent with the guidelines contained in these rules and towards the aim of fulfilling the Council's policy priorities, while balancing cost, risk and reliability. The Working Group will prepare Portfolio Alternatives to present for consideration and Interim Council Action, which will determine the set of Portfolio Alternatives to be modeled.

In the identification and presentation of the preferred IRP portfolios, 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 for each of the portfolios while holding the resource plan constant. These sensitivity analyses should need to be presented in the Utility's IRP filing so that the Council can comprehend the robustness of the preferred plans 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 demand-side programs, and environmental regulation, may be appropriate for sensitivity analyses. The Working Group will provide input prior to Interim Council Action on the scenario and sensitivity components. 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.

Non-New Orleans System Planning

As the Utility is no longer a party to the Entergy System Agreement, ENO should describe and offer analysis on any collaborative planning or cost-sharing agreements and how they impact ENO's planning and resource acquisition, as was historically done through Strategic Resource Planning. This may include Entergy Services, Inc., Entergy System Transmission Planning Operations, MISO, and any other organizations independent of or a part of Entergy Corporation that may impact ENO's planning, timeline, and costs.

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 resource 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 alternate scenarios.

PROCEDURES:

Each IRP cycle shall begin with a public meeting and an initiating Resolution by the City Council outlining a procedural schedule, and providing additional specific guidance to the parties' on Council priorities, expectations, roles, and other matters as needed.

It is assumed to be the goal of all parties that public involvement be meaningful, valuable, and handled responsibly from a public interest perspective. ENO should offer the public opportunities to understand major aspects of the planning process, alternatives, assumptions, and related subject, as well the opportunity for the public to provide meaningful input. These may coincide with technical conferences in order to efficiently and meaningfully bring public input into the planning process. The first of these presentations, with opportunity for question and answer, shall be scheduled to coincide with the initiating resolution.

Working Groups

The Utility shall undertake a process of collaboration with a Working Group of intervenors and selected interested parties that will follow a procedural schedule of milestones, to include technical conferences, updates on inputs, and written comments by the parties.

The members of this Working Group shall review objectives, assumptions, avoided cost determinations, portfolios, reliability,⁷ and estimated forecasted needs early in the planning cycle and submit comments to the Council along the milestones to inform Interim Council Actions described above and take part in technical conferences related to discrete topics to be discussed at a technical level. The Utility shall make a good faith effort to properly inform and respond to Working Group concerns. The Working Group may meet via teleconference as necessary in order to efficiently work toward consensus ahead of Council action. The purpose of the Working Group is to support Council resolutions along the Interim Actions, while allowing for later critique with justification if necessary.

The CURO office shall host technical conferences in collaboration with the Advisors and any Independent Evaluators or consultants, and will determine the agenda for these meetings. The purpose of these workshops is for the Working Groups to discuss the inputs, portfolios, or other issues ahead of Council action, and find consensus among the parties where possible.

⁷ The Council and Working Group should identify a process for resource evaluation that can include costs and benefits associated with such factors as generation, distribution, and transmission infrastructure resistance to flood risk, For energy efficiency and other DSM, value to customers in the event of storm or power loss, for generation, distribution, and transmission infrastructure: system reliability standards and impacts (NERC, MISO)

Documents prepared by the Utility and stakeholders shall be available for review (sent to the service list) well in advance (at least 7 days) before a technical conference.

Interim Actions

The Council shall take Interim Actions at milestones throughout the IRP cycle as necessary and as scheduled in the initiating resolution for each IRP cycle, to give guidance to the Utility on modeling inputs, assumptions and calculation methodologies, scenario design and sensitivities, portfolios, and Council goals.

Certain inputs shall be verified by an Independent Evaluator. These inputs shall include but are not limited to baseline load forecast, DSM inputs including avoided cost determinations, fossil fuel generation, renewable energy, energy storage cost assumptions, and fuel costs. The Council shall take Interim Actions on these verified inputs.

A final IRP shall be submitted by the Utility every three years, with 60 days for comments from stakeholders, 60 days for reply from the Utility, and an additional 60 days for an Advisor's report before a concluding Council Action, further described in Component 5.

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; and shall include:

- a) The total annual electricity consumption for the Utility and for each customer class.
- b) Coincident summer and winter utility peak demands, as well as peak electric demand for each customer class.
- c) Monthly demand and electricity consumption for the total utility system and for each customer class.

2) Prior load forecast evaluation. To the extent the information is available, each IRP shall contain the following historic data:

- a) An assessment of accuracy of previous forecasting, including comparison of forecasted versus actual data (including regulatory planning forecasting, business forecasting, and any other system forecasting that may offer insight;
- b) An explanation of the cause of any significant deviation between the previous forecasts and actual annual peak demand and energy that occurred;

c) An explanation of the impact that historical demand-side resources (including the Energy Smart program) had on the prior load forecast.

(2) (3)A reference planning scenario forecast, a low growth planning scenario forecast, and a high growth planning scenario forecast;

3)-(4) A discussion of the forecasting methodology and a list of key independent variables utilized to develop the reference planning scenario forecast;

4) (5) 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) 6) 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) 7) 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. The baseline forecasts shall take into account all anticipated and naturally occurring and historical Energy Smart energy efficiency program impacts, as well as all naturally occurring energy efficiency projections resulting from changes to building codes, federal energy efficiency standards, and other factors as appropriate; such as existing and expected building codes and appliance standards.

8) A discussion of the impact of line losses included in the forecast, including the extent to which the forecast includes the effects of current and planned line loss reduction programs.

9) To the extent the Utility is a party to a the Entergy System Agreement or other-cost sharing arrangement among the Entergy Operating Companies where costs are allocated on the basis of demand, energy, or planning, 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 - Analysis of Resource Options 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, O/M, transmission), 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 rates. 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.

For consideration in the Working Group prior to Interim Council Action, ENO shall provide details comparing previous assumptions and projections from the past two IRP filings with historical actual data and indicate how resource acquisitions compare to previous IRP recommendations including the following:

1) Implemented Demand Side Management Programs – Expenditures, capacity savings, energy savings (annualized and lifetime), list of implemented programs, and explanation of Market Sales made possible following DSM savings.

2) Renewable Energy Acquisitions (for each specific resource) – nameplate capacity, capacity factor, capacity value, energy production, and Market Sales.

3) Renewable Energy Market Prices vs. Assumptions (by resource type) - LCOE, installed cost, capacity value, capacity factor, O&M, cost of delivery.

4) Traditional Generation Acquisitions (for each specific resource) - nameplate capacity, capacity factor, capacity value, energy production, and related market sales.

5) Fuel (natural gas and coal) - Comparison between previous forecast and actual historical costs.

6) Estimated Customer Bills - Comparison between previous forecast and actual historical costs.

7) Market Sales projected vs. Historical actual - Energy (kWh) and capacity sales (kW), income, financial benefit to ratepayers.

8) Transmission Investments - cost, purpose, and expected benefits of investments made since the last IRP.

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

DSM Targets and Modeling

It is a primary objective of the triennial plan to identify and integrate all cost effective DSM resources for electric and gas ratepayers through sustained demand response, energy efficiency and other DSM approaches such that programs will be made available to all utility customers. The plan should evaluate and include all DSM resources that are shown to be lower cost to consumers than supply side resources, as long as additional capacity needs are verified. IRP filings shall include the Council's DSM Targets of increasing projected savings from the Energy Smart Programs by 0.2% per year, until such time as the program generates kWh savings at a rate equal to 2% of annual kWh sales for the remainder of the IRP planning horizon, as well as demand reduction target as set by Council Interim Action. The minimum level of DSM resources in the

IRP shall be the Council's DSM targets.⁸ Any additional resource needs identified in each triennial integrated resource planning cycle shall first be met through the acquisition of all available energy efficiency resources that are cost-effective, reliable, and feasible.

The analysis of DSM potential shall be conducted by an Independent Evaluator (IE) hired by the Council for the purpose of ensuring that all cost effective DSM resources are identified, appropriately integrated into resource modeling software and analysis, and fully represented in the final IRP report.

The work of the DSM potential study Independent Evaluator shall be supported by the contributions of the Working Group on subjects including, but not limited to: identification of eligible measures, life expectancies, baseline standards, load serving profiles, incremental capacity and energy savings, cost assumptions, participant adoption rates, market development, avoided energy and capacity costs, utility system benefits (ie. reliability benefits, reduced reserves and T&D costs, market price effects, etc.), input methods for resource modeling, verification of modeling results, non-energy benefits and other subjects as necessary. Prior to running the integrated resource planning models, the IE and Working Group will present DSM input recommendations to the Council for approval as an Interim Council Action. Cost effectiveness for DSM will be evaluated primarily from the perspective of the Total Resource Cost test following the California Standard Practice Manual.

The integrated resource plan shall be distinct from, but coordinated with, other DSM related dockets, each with their own separate proceedings, including but not limited to:

Energy Smart Escalating Targets

Energy Smart implementation plans, budget allocations, and EM&V

Utility cost recovery and incentives

The Utility should also evaluate distributed generation technologies on par with other supplyside resources and should consider, and quantify where possible, the additional benefits of distributed generation.

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 alternative portfolios that are substantially different from one another and considered and compare the costs of those

⁸ For information regarding the reason for setting DSM targets within the IRP process, please see http://aceee.org/blog/2014/12/irp-vs-eers-there%E2%80%99s-one-clear-winner-

portfolios to one another to assist the Utility, stakeholders, and the Council to understand their relative pros and cons. The portfolio of resources relied upon by the utility.

To the extent the Utility anticipates altering its resource portfolio during the following 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 portfolios will provide New Orleans ratepayers with reliable electricity at the lowest practicable costs.

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, nameplate and anticipated capacity available at time of peak, annual capacity factor of the previous five years, and planning retirement date or resource contractual termination date, annual emissions rates, as reported to the Louisiana Department of Environmental Quality, annual operational costs (fixed and variable) over the last five years, and expected capital expenditures over the planning horizon;

2) A table depicting co-generation and distributed energy resources (DERs) larger than 300 kW existing on the Utility's system, including resources maintained by the City of New Orleans for city/parish purposes, (eg. Sewerage and Water Board, Orleans Levee District, or by independent agencies or entities such as universities, etc.);

3) Any important changes to the Utility's resource mix that occurred since the last IRP including large capital projects, resource procurements, changes in fuel types, and actual or expected operational changes from economic viability or environmental regulations;

4) A table showing the reference planning scenario demand forecast and planning reserve in comparison with the Utility's existing resources;

5) A monthly reference planning scenario fuel price forecast for all fuels considered for utilization in all existing and potential supply-side resources;

6) Alternative fuel price forecasts for fuels for which a significant variability in price could be expected;

7) 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;

8) A description of each new 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-side resources shall include distributed energy resources (DERs) maintained and operated by the Utility, such as community solar, without prejudice for method of cost-recovery. Supply options must include

non-utility sources of power (e.g., bulk power purchases from independent power producers, cogenerated power, and market purchases);

9) 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") test⁹, defining the impacts on revenue requirements to ratepayers,¹⁰ should be used for initial screening of resource options. The Cost effective demand response programs may should include those programs enabled by the "smart grid" and the associated deployment of Advanced Meter Infrastructure ("AMI") such as "Time of Use Pricing", as well as load control programs which do not require 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. Non-generation distributed technologies designed to improve the resilience and reliability of the Utility's distribution system shall be include;

10) Description of existing AMI installed along with timeline for expected deployment of AMI across the service territory;

11) The results of any Requests for Proposals for power supply that were conducted within the past three years;

12) A description of the portfolios designed 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, supply non-peak demand or operational constraints, achieve more economical production of energy);

13) A schedule of costs showing the annual total demand related costs, energy related costs, and total supply costs associated with each of the Portfolios;

14) If none of the Alternative Portfolios UPRP are the least cost plan, the Utility shall indicate the pros and cons of each provide the basis for rejecting the least cost plan and provide a schedule of costs comparing showing the annual total demand related costs, energy related costs, and total supply costs associated with the least cost plan.

15) An analysis of the rate and expected bill impacts of the Portfolios 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

⁹ California Standard Practice Manual: Economic Analysis of Demand-Side Programs and Projects, State of California Governor's Office of Planning and Research, July 2002

¹⁰ Impact on the revenue requirement is important, but not for initial screening.

Companies that have submitted a notice to terminate participation in the Entergy System Agreement;

16) Discussion of existing and planned Transmission Facilities, identifying transmission constraints and critical contingencies;

14) Discussion of existing and planned Distribution Facilities, with a characterization of its ability to receive increasing penetration of distributed generation, and new loads over time, such as increasing penetration of electric vehicles. Potential system enhancements such as microgrids and integration of AMI shall be considered where appropriate;

17) To the extent an alternate cost sharing arrangement other than the Entergy System Agreement, among the Entergy 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.

18) A risk assessment of the Portfolios UPRP is required to evaluate their riskiness of alternative portfolios-using a 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 Portfolios 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 resource prices, load projections, forced outages, environmental costs, and gas price data with multiple iterations of potential future conditions.¹¹ The simulation results should be used to estimate the regional electric market, and the iterations collectively form the Portfolios 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;

19) A discussion and presentation of results for each of the alternative planning scenarios considered, including a schedule of costs showing the annual total demand related costs, energy related costs, and total supply costs associated with each alternative planning scenario; and

20) 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 guide the selection of a portfolio change the UPRP under alternative conditions. The scenarios should identify changes to underlying assumptions that could guide the selection of portfolio alter the UPRP such as changes to load growth, capital costs, resource upgrades, the emergence of other small renewable projects DER technologies, and resource alternatives.

^{11 3} 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.

Demand-side/load management options would be dispatched in an optimal manner similar to the dispatch of utility generating units.

Modeling and Analysis

The Utility shall use a model to develop least cost resource plans that meet customer needs and Council goals. The model shall seek to consider demand-side resources competitively with supply--side resources. 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.¹

Component 4 - Integration of Delivery

ESTABLISHMENT OF PORTFOLIO ALTERNATIVES

The development of portfolios beyond the unmodified resource modeling software selections will be done for the purpose of providing the Council with meaningful alternatives whose characteristics present different methods of meeting the clean energy objectives of these rules and reflect the vision and priorities of the Council.

Each alternative portfolio will be developed and analyzed with the same level of rigor and intent to affirmatively solve for New Orleans' resource needs. To ensure the Council receives the best information for each of the alternative portfolio options, cost and performance attributes for each resource considered will be the best relevant current-, or reasonably assumed projected-, market opportunities available.¹²

The Council will have the opportunity to select which alternative portfolios will be evaluated by Resolution prior to the Utility inputting and analyzing resources with modeling software. Alternative Portfolio's will be provided to the Council for consideration by the Working Group.

¹² The Working Group and Independent Evaluator will provide information to the Council to verify or critique the methods and assumptions used.

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. If transmission projects have the potential to reduce supply costs, these will be identified with sufficient detail in the Alternative Portfolio analysis. The Utility shall include transmission projects selected for development through the most recent MISO Transmission Expansion Planning (MTEP) and MISO Economic Planning Users Group (EPUG) cycles. 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 and benefit impact to the Utility and customers.

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. and comment. The Utility shall present the final IRP and portfolios at a publicly noticed and broadly accessible meeting, and shall maintain a page on their website for public access to non-confidential milestone documents and the final IRP.

The CURO office shall hold a public hearing for the Council and Utility to receive feedback on the Final IRP Report before the Advisor's final report. This hearing shall be documented and a transcript entered into the record of the docket.

The Utility, Stakeholders, and Council Advisors shall have the opportunity to identify any policy matters raised in the IRP process that may warrant Council action, including matters that extend beyond the scope of the present docket.

Component 6 - Conclusion of the IRP Cycle, Council Resolutions and Reporting Requirements

A final IRP report¹³ shall be submitted by the Utility every three years, with 60 days for comments from stakeholders, 60 days for reply from the Utility, and 60 days for an Advisor's report to be completed at least 30 days prior to a concluding Council Action.

One element the Advisor's report shall include is a list of disputed items that remain unresolved for consideration and possible action by the Council.

¹³ The Working Group is encouraged to develop a standardized filing format for use the next IRP and successive IRP cycles to better enable review and comparison from one IRP report to the next.

The Council has the authority but no obligation to formally accept the Utility's IRP filing. Concluding Council Action on the IRP may consist of:

- Acceptance of the IRP, selection of a portfolio and guidance by Council to the Utility to submit an action plan based on their portfolio selection.

- Neutral acknowledgement with Council guidance on conditions and / or modifications.

- Rejection with conditions, based on IRP deficiencies with respect to these rules and Council's stated priorities.

Based on the Council's concluding action, the Utility will be directed to develop and submit an Implementation Action Plan in accordance with Council direction. Parties will have the opportunity to file comment on the Implementation Action Plan before a decision is rendered by the Council.

Portfolios in the final IRP that are not selected by the Council in the concluding action may be considered in following IRP reports and considered for future decisionmaking as realities unfold, such as market changes and updates in technologies.

Nothing in these rules shall restrict the jurisdiction of the Council with respect to the decisionmaking following an IRP cycle.

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 prudency of costs incurred by the Utility to construct generation, and purchase and deliver electricity.

In Re: RULEMAKING TO ESTABLISH INTEGRATED RESOURCE PLANNING COMPONENTS AND REPORTING REQUIREMENTS FOR ENTERGY NEW ORLEANS, INC. UD-17- 01

Certificate of Service Docket No. UD-17-01

I hereby certify that I have this 27th Day of February, 2017, served the required number of copies of the foregoing correspondence upon all other known parties of this proceeding, by USPS or electronic mail.

Logan Atkinson BurkeAlliance for Affordable Energy

UD-17- 01

In Re: RULEMAKING TO ESTABLISH INTEGRATED RESOURCE PLANNING COMPONENTS AND REPORTING REQUIREMENTS FOR ENTERGY NEW ORLEANS, INC.

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