

The Empire District Electric Company Responses to the Aug-04-09 IRP Questions

August 4, 2009

As discussed in the July 31, 2009 Chapter 22 rulemaking workshop, Staff is requesting that each utility independently provide the following information by close of business on Friday, August 7, 2009 via email to john.rogers@psc.mo.gov.

1. Identification of those specific parts of the latest draft Chapter 22 rules your utility believes to be too prescriptive, especially those analyses and reporting requirements that the rules require the utility to perform or file that the utility would not perform absent the rules.

Empire Response:

Empire still contends that the new rule should be revised to concentrate on objectives and goals, rather than be a set of detailed instructions on how to prepare the plan and perform the analysis. Given that view, Empire feels that in general, the entire reworking of the old rule which has become the latest draft of the new rule is the wrong approach. It would be reasonable to say that the entire latest draft of the IRP rule is too prescriptive. Nonetheless, Empire will respond after a limited review of the latest draft of the Chapter 22 (integrated resource plan or IRP) rules given the time requirements to prepare this response. It should be noted that by making these comments Empire has not settled on what the new rule (in the old format) should look like.

Load Forecasting

The objective of the load forecasting section of the IRP rule should be to generate a 20-year revenue class level forecast by month with a base, high and low forecast. The methodology used to achieve this objective should not be prescribed in the rule.

In the current draft of the IRP rule specific areas that are too prescriptive or are unnecessary include but are not limited to:

- **The rule states that selected models will include a method of end-use analysis**
- **Several sections of the rule reference end-use information**
- **Assessment of consumption drivers is required**
- **Models based on end-use parameters used for the analysis of actual or proposed legal mandates**
- **Analysis of economic and rate policies**
- **Analysis of impacts of demand-side resource programs**
- **Rule outlines what data should be included in a historical data base**

- Maintaining class and subclass data
- Requires a procedure to routinely measure and update estimates of the effect of departures from normal weather and tells how to conduct this procedure
- Analysis of number of units for each major class or subclass
- Analysis of load profiles and how to do it
- Forecasts compared to historical trends with significant differences analyzed
- Account for effects of real prices of electricity
- The stock of energy-using capital goods
- Sensitivity analysis of the components of the base-case forecast for each major class to variations in key independent variables
- Extreme weather forecasts
- Reporting requirements
- Overall the current draft is too detailed and difficult to understand with too many extraneous side analyses

Load Analysis

The objective of the load analysis section of the IRP rule should be to provide reasonable load shapes for use in the planning process and demand side analyses. This may be primary data, secondary data or a combination.

Note: The link between load forecasting and load analysis in the current IRP rule seems to be the primary reason for the requirement of end-use data. Empire suggests that load forecasting and load analyses become separate processes.

Supply-Side Resource Analysis

The primary objective of the supply-side resource analysis section of the IRP rule should be an analysis of existing supply-side resources, the generation of a diverse list of candidate supply-side options, including the documentation of candidate costs and operating characteristics. This section should also encompass fuel forecasts and power market prices and the correlation of specific alternate plans for uncertainty.

In the current draft of the rule specific areas that are too prescriptive or are unnecessary include but are not limited to:

- The rule specifically states which supply-side attributes to consider
- Preliminary screening analysis required
- Screening candidate resources in order to eliminate them should be an option instead of a requirement
- Supply-side rules require a thorough analysis of the existing transmission system
- Identifies factors that the fuel forecast must consider
- Details how to identify efficiency improvements

- Fixed and variable operation and maintenance cost obtained from same source as capital costs
- Reporting requirements
- Overall the draft is much too detailed

Demand-Side Resource Analysis

The objective of the demand-side analysis section of the IRP rule should involve the generation of a comprehensive list of candidate demand-side options, document the cost and load characteristics of the options, and their cost effectiveness.

In the current draft of the rule specific areas that are too prescriptive or are unnecessary include but are not limited to:

- The draft rule is very rigid and does not take into account the types of waivers that have been recently requested by utilities, and the ability to use a best practices approach
- The draft rule explicitly lays out a process for the demand-side analysis
- The draft rule explicitly details the calculation of avoided costs
- The draft rule includes an explicit step-by-step process for evaluation
- Reporting requirements

Integrated Resource Analysis

The objective of the integrated analysis of the IRP rule should involve the generation of a set of alternate resource plans to be analyzed and evaluated.

In the current draft of the rule specific areas that are too prescriptive or are unnecessary include but are not limited to:

- The draft rule provides specific performance measures for each alternate plan
- The rule dictates which types of alternate plans are to be analyzed (five plans are required with any additional plan(s) the utility deems appropriate)
- The rule prescribes the set of tasks that are required to analyze the various alternate resource plans
- Specifies the analysis of load-building programs
- Reporting requirements

Risk Analysis and Strategy Selection

The objective of the risk analysis section of the IRP rule should involve the development of a list of critical variables and an assessment of the impact of these variables on the set of alternate resource plans. The primary objective of the strategy selection portion of the IRP rule should involve the selection of a

“preferred” resource plan that strikes an appropriate balance over all the planning objectives, and describes how the “preferred” plan will be implemented.

In the current draft of the rule specific areas that are too prescriptive or are unnecessary include but are not limited to:

- **The current draft rule explicitly states how to perform the analyses (it lists phases 1 through 3 of the process)**
- **It requires a preliminary sensitivity analysis of the uncertain factors**
- **It states which uncertain factors must be evaluated**
- **It requires the use of a decision-tree (only listed here due to it being a specific requirement)**
- **It requires multiple statistical analysis tests to measure the plans and associated risks**
- **It requires an analysis of unserved hours and emergency power for a twenty year plan**
- **It requires the quantification of the expected value of better information concerning the critical uncertain factors**
- **It addresses research to update load forecasting and load analysis**
- **It requires an analysis to determine how the preferred plan will perform under extreme weather**
- **It is very prescriptive concerning the implementation plan**
- **It requires the chairman of the board to sign**
- **Reporting requirements**
- **Overall this section contains too much detailed and difficult to interpret processes with extraneous side analyses. The link between integration and risk analysis is very confusing.**

Transmission and Distribution Analysis

At this point, it is not clear what the objective should be given the RTO’s role in the planning process. Transmission and Distribution analysis may need to be minimized or totally eliminated from the IRP rule.

2. **If the updated Chapter 22 rules are made less prescriptive, identify what your utility believes should be the appropriate deliverables (reporting requirements) to demonstrate that the fundamental objectives of each rule are being achieved.**

Empire Response:

This response assumes that the “deliverables” being requested are the standard IRP reports. This is a cursory review of “deliverables” given the quick turnaround requested by Staff.

In general the IRP reports should include an executive summary and supporting volumes, which provide the supporting details about the various sections of the process employed by the reporting utility. In addition to a comprehensive description of the processes, the reports should contain charts, graphs, and tables that the utility deems appropriate for presenting the findings, explaining the processes employed and how the utility complied with the objectives of the IRP rule.

The IRP rule should not specify the exact contents of the reports in order to maintain as much flexibility as possible. The following represent Empire's suggestions for the reporting requirements for each section of the IRP.

Executive Summary

The Executive Summary should provide an overview of the entire IRP process. It should concentrate on the essentials. For example, the executive summary should present the findings; describe the selected plan; outline the implementation plan; present the major assumptions and provide a description of each of the supporting sections used in the IRP process.

The supporting sections used to report the results of the IRP should provide a comprehensive description of the process used, provide a description of the outcome and demonstrate compliance with the IRP objectives. For example, the standard tables, charts and graphs could include:

LOAD FORECASTING

- **Tables of data and accompanying graphs showing the base, low and high peak and energy forecasts with at least ten years of actual historical and weather normalized peaks and energy**
- **Historical and projected growth rates**
- **Tables displaying sales and revenue projections by revenue class**
- **Tables and graphs showing the historical and projected number of customers by revenue class**

SUPPLY-SIDE RESOURCE ANALYSIS

- **Table providing data on existing supply-side resources**
- **Performance parameters for all supply-side candidate resources**
- **Tables and graphs that depict projected fuel costs used in the analysis**
- **Tables that display the environmental costs used in the analysis**
- **Tables or graphs that depict the market price of power used in the analysis**

DEMAND-SIDE RESOURCE ANALYSIS

- **Tables that depict the performance parameters and cost effectiveness screening for all demand-side candidate resources reviewed during the analysis**
- **Tables that depict the performance parameters for all demand-side candidate resources subjected to further analysis through the integration process**

INTEGRATED RESOURCE ANALYSIS, RISK ANALYSIS AND STRATEGY SELECTION

- **A data table of performance measures for each plan**
- **Capacity and resource balance tables for each plan**
- **Risk profile associated with the “preferred” plan**
- **Tables and graphs showing the timing and MW impact of the “preferred” plan**
- **Information that displays the PVRR and risk associated with the “preferred” plan and any alternative plans considered**

3. If the updated Chapter 22 rules are made less prescriptive, identify the procedures your utility believes to be appropriate to ensure that stakeholders got the information they need in a timely fashion to determine that your utility has demonstrated that the fundamental objectives of each rule are being achieved.

Empire Response:

There could be several terms included in the IRP rule to ensure that the various stakeholders receive timely information and gain insight into the planning process. These could include: (1) stakeholders will receive the various IRP reports, (2) stakeholders will have access to or copies of the IRP supporting workpapers, (3) stakeholders can use the normal data request approach to gain access to IRP information, (4) periodic IRP meetings or updates could be held to keep stakeholders informed and (5) if the “preferred” plan has significant changes, the Commission and other stakeholders could be notified.