# BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of The Empire District Electric	c)	
Company's Application for Variance and	)	
Clarification Concerning Select Provisions	)	Case No. EE-2010-0246
of Commission Rules Related to Electric	)	
Utility Resource Planning.	)	

# EMPIRE'S REPLY TO STAFF RECOMMENDATION AND MDNR RESPONSE

COMES NOW The Empire District Electric Company (Empire or Company), and, in reply to the Response filed by the Missouri Department of Natural Resources (MDNR) and the Recommendation filed by the Staff of the Missouri Public Service Commission (Staff), states as follows:

- 1. On February 26, 2010, Empire asked the Commission to grant it variances from certain requirements of the Commission's Integrated Resource Planning (IRP) Rule, 4 CSR 240-22, and to clarify certain other requirements. The Commission directed that responses to Empire's Application be filed by March 31, 2010.
- 2. On March 31, 2010, the Staff filed its Recommendation to Grant Variances and Clarification Requested by Empire For Its 2010 Electric Resource Planning Submission (Recommendation) and MDNR filed its Response to The Empire District Electric Company's Application for Variance and Clarification (Response). In the following paragraphs, Empire will set forth the substance of these two documents and then provide its position in reply.

## **STAFF RECOMMENDATION**

3. Staff's Recommendation suggested that the Commission grant, for purposes of Empire's 2010 electric resource planning submission, the variances and clarifications that Empire requested, subject to the condition that Empire provide Staff with a plan to assess the

feasibility of changing its forecasting methodology for its IRP filings following its September 2010 IRP filing,

**Empire Reply**: Empire does not object to the load forecasting methodology feasibility report requirement that Staff requested. In fact, Empire's Application outlined its plan to provide Staff with this feasibility report.

4. Staff's Recommendation stated that Staff had discussions in recent months concerning Empire's plans to request variances from the 4 CSR 240-22 rules.

**Empire's Reply**: Empire confirms that it has discussed IRP load forecasting methodology and prospects for variances in that area with Staff and other stakeholders in the 2007 IRP post-filing meetings and during the recent semi-annual IRP meetings.

### **MDNR RESPONSE**

5. In its Response to Empire's request for variance, MDNR recommended that the Commission deny several of Empire's requests for variance and recommended that the Commission impose additional IRP requirements on Empire in the area of Load Analysis and Forecasting.

Empire Reply: Empire would have preferred working with MDNR about its concerns in advance of Empire's variance request filing. MDNR did not participate in Empire's Load Forecasting 2007 IRP post-filing meeting. Additionally, MDNR did not raise any concerns about Empire's plan to request a variance from the IRP rules on load forecasting when the variances were discussed during the recent semi-annual IRP meetings that are held with the stakeholders. MDNR participated in all of Empire's semi-annual IRP meetings. This having been stated, Empire will provide the following substantive reply to MDNR's suggestion.

When considering an IRP load forecast it is important to note that a forecast is not just the forecast of a single point in the future, but a band or range of forecast outcomes. In its upcoming IRP filing Empire will have base, high and low forecasts of its future loads to capture the uncertainty inherent in any load forecast. During the integration and risk portions of the IRP process, resource plans will be generated for this range of possible outcomes. Currently, the Empire IRP in accordance with Commission rules has a 20-year planning horizon, and the IRP is updated and refined every three years.

- 6. In its Response to Empire's request for variance, MDNR suggested the following additional IRP forecasting procedures be applied to Empire:
- a. MDNR requests that the Commission "1) require Empire to provide details of its regression analysis as soon as practicable."

**Empire Reply**: As stated in its IRP variance request, Empire will provide an entire volume dedicated to load forecasting with the IRP filing. This report will fully explain the load forecasting methodology and provide the forecast results. Empire has no objection to sharing this report with the MDNR prior to the IRP filing date once it is completed.

b. MDNR requests that the Commission "2) require Empire to use economic variables in conjunction with trend variables in load forecasting/regression analysis."

**Empire Reply**: Empire has used economic variables for load forecasting in the past, including its most recent IRP filing in 2007. Empire's experience has indicated that there are problems incorporating forecasts of future economic activity into the IRP load forecast. This is especially true during this period of unprecedented economic uncertainty that includes the reshaping of Wall Street in late 2008, the severe downturn of the housing market and the downturn of the overall economy. As Empire discussed in its recent IRP meetings with the

stakeholders, by utilizing internal resources, which includes field personnel, Empire has an indepth knowledge of its service territory which can be used to help develop an acceptable range of future load levels that can be used for resource planning purposes.

For purposes of this upcoming IRP load forecast, Empire had concerns about using published economic data due to its limited "shelf-life" and the severe nature of economic disruption that has and is occurring in the United States. More specifically, by the time the IRP process is complete in Missouri, the published economic report containing the data used in the IRP is more than one year old. In addition, the actual historical economic data in these reports may be up to three years old, since some historical data is estimated, and all historical data is subject to future revision. As the publisher of the economic data points out, the economic data includes, forecasts and projections that are uncertain and future data may differ substantially from forecasts and projections. The publisher of the economic data makes no guarantee as to the accuracy of the data, analysis, forecasts and projections.

Empire has found that if economic variables are incorporated into the IRP load forecast process; these variable(s) tend to become a dominant driver in the load forecast. As a result, the outcome is an economic forecast driving a load forecast, and the results may have to be manually adjusted by the analyst to avoid an unreasonable load forecast. In some cases, the economic variables, which are supposed to be a forecasting tool, can actually become a forecasting hindrance.

Another problem that Empire has encountered using economic forecast data, which has been pointed out to the IRP stakeholder group, is associated with the applicability of the economic data to the Empire service territory. For example, the economic data is generally published at the county and state level. This creates a problem, when Empire only serves a

portion of the county and Empire does not serve that portion of the county that dominates the economic activity within that county. In these circumstances it is very difficult to use the county data as presented from an economic forecasting service without misrepresenting the impact on Empire's load forecast. In fact, it is not uncommon for the analyst to "modify" economic data in order to produce a load forecast that is reasonable.

In its response, MDNR points out that "economic variables (such as gross domestic product, population, per capita income, etc) are important drivers and critical components of load forecasting." Empire agrees that the economy is an important driver of how customers have used energy in the past, which makes it an important component of load backcasting. The problem remains that the future state of the economy is difficult, if not impossible, to forecast with any degree of certainty.

MDNR states, "If the forecast ignores economic variables, it ignores economic trends as well." In its modeling, Empire has not ignored past economic trends since it is represented in the historical customer count, use per customer and total energy consumption. But again, future economic trends cannot be forecasted, especially in a 20-year forecast.

c. MDNR recommends that the Commission "3) grant Empire's variance to starting points of the data base used to forecast net system loads and system peak demand."

**Empire Reply**: Empire agrees.

d. MDNR requests that the Commission "4) clarify the rule to require Empire to provide subclass level data for residential forecasting."

**Empire Reply**: Empire disagrees with MDNR's contention that the existing IRP rules require the use of residential subclass data when preparing an IRP load forecast. This is similar to a clarification that Empire requested during its 2007 IRP and no objections were raised by the

parties to the last IRP, including MDNR. Empire does not maintain residential data by subclass (dwelling type).

In the variance application in this case, Empire wanted to clarify the forecasting method it would use prior to the actual IRP filing. Empire did not specifically request a variance from forecasting by residential subclass. The rule states that the utility shall consider the use of subclasses for the residential class when forecasting, but the IRP rule does not require it.

Based on its response, "MDNR interprets the rule to consider subclass level data for the residential class to be a requirement." The rule reads: "Taking into account the requirement for an unbiased forecast as well as the cost of developing data at the subclass level, the utility shall determine what level of subclass detail is required for forecasting and what methods to use in gathering subclass information for each class." In short, the rule allows the utility to determine the level of subclass detail needed to produce an adequate load forecast taking into consideration the cost of gathering and maintaining the subclass data.

The utility should report its rationale for either using or not using subclass data in the IRP forecasting report. Empire took into consideration the cost of obtaining residential subclass data and determined that it would not be beneficial to do so. Empire has also reviewed other recent Missouri utilities' IRP filings and could find no evidence that any other Missouri utility uses residential subclass data for load forecasts. Two of the IRP filings explicitly stated that residential subclasses are not used in load forecasting, and another filing did not mention the use of subclasses in its nonproprietary load forecasting documents.

WHEREFORE, Empire respectfully requests that the Commission issue its order granting a variance and clarification as requested in Empire's Application, subject to the requests contained in the Staff Response and in Empire's Application, which states as follows:

After the completion of the September 2010 IRP, Empire has agreed to provide the Missouri Public Service Commission Staff with a plan that addresses the feasibility of changing the Company's forecasting method for the IRP filing that will follow the September 2010 filing. This plan will include a proposed time line and cost estimate that can be used for further discussions. The plan will consider the use of economic variables; forecasting at the class cost of service level; and the requirements in the Load Analysis and Forecasting rule that will be in place at the time of the IRP filing that is subsequent to the September 2010 filing.

Respectfully submitted,

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ATTORNEYS FOR THE EMPIRE DISTRICT ELECTRIC COMPANY

### **CERTIFICATE OF SERVICE**

I do hereby certify that a true and correct copy of the foregoing document has been sent by electronic mail this  $9^{th}$  day of April, 2010, to:

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