

Staff's Suggested Issues and Empire's Comments:

A. Review the impact of foreseeable emerging energy efficiency technologies throughout the 20-year planning period.

Empire's Response: This issue has been addressed in the last two Empire Annual Update cases in 2014 and 2015. In past cases, Empire asked the Commission for clarification on previously addressed issues. The Commission responded: "If it believes that it has already adequately addressed any of the identified special contemporary issues in an earlier filing, Empire need only establish that fact in its [2014] annual update filing to comply with the Commission's directions." If Staff Issue A is included in the Commission's order, Empire plans to revisit the previous responses and provide any updates.

B. Review the impact of foreseeable emerging energy storage technologies throughout the 20-year planning period.

Empire's Response: Empire addressed this issue in its recent 2015 Annual Update case. If Staff Issue B is included in the Commission's order, Empire plans to revisit the previous response and provide any updates. With regard to emerging technologies in general, the IRP rule states that the utility shall evaluate resources "which the utility can reasonably expect to use, develop, implement or acquire..." 4 CSR 240-22.040 (1).

C. Analyze and document the future capital and operating costs faced by each Empire coal-fired generating unit in order to comply with the following environmental standards:

- (1) Clean Air Act New Source Review provisions;
- (2) 1-hour Sulfur Dioxide National Ambient Air Quality Standard;
- (3) National Ambient Air Quality Standards for ozone and fine particulate matter;
- (4) Cross-State Air Pollution Rule, in the event that the rule is reinstated;
- (5) Clean Air Interstate Rule;
- (6) Mercury and Air Toxics Standards;
- (7) Clean Water Act Section 316(b) Cooling Water Intake Standards;
- (8) Clean Water Act Steam Electric Effluent Limitation Guidelines;
- (9) Coal Combustion Waste rules;
- (10) Clean Air Act Section 111(d) Greenhouse Gas standards for existing sources;

(11) Clean Air Act Regional Haze requirements; and

(12) Clean Power Plan.

Empire's Response: Most parts of this issue were addressed in the last two Empire Annual Update cases in 2014 and 2015. In past cases, Empire asked the Commission for clarification on previously addressed issues. The Commission responded: "If it believes that it has already adequately addressed any of the identified special contemporary issues in an earlier filing, Empire need only establish that fact in its [2014] annual update filing to comply with the Commission's directions." Empire also sought further Commission clarification regarding the instructions and whether the Commission is requiring it to document the cost to comply with each of the [then] eleven environmental standards separately. Empire explained that all of its air quality control projects are designed to satisfy multiple environmental standards at once. The Commission clarified as follows: "The Commission is interested in the cost associated with compliance by each coal-fired generating unit with the eleven environmental standards in total. Empire does not need to separately breakdown the cost to comply with each of the eleven environmental standards."

If Staff Issue C is included in the Commission's order, Empire plans to revisit the previous responses and provide any updates.

The newest addition to this list is item 12, the Clean Power Plan. The timing of this IRP is such that there are no final details available about the cost to comply with the Clean Power Plan. At this point, each state must submit its initial compliance plan by summer of 2016 with additional time available by request until summer of 2017 for a single state or summer of 2018 for a multi-state approach. Development of the Empire IRP is underway and it is planned to be filed in April 2016. Additionally, the US Environmental Protection Agency (EPA) received greater than 2 million public comments by the December 1, 2014 closure of the comment period. State, federal and industry representatives voiced their concerns with the regulation as written and the potential impact on electric grid reliability and the cost to implement. State and industry representatives including Empire continue to evaluate potential paths forward if the rule is finalized as proposed by the EPA. If this issue remains in the Commission approved list, Empire plans to address the Clean Power Plan issue based on the environmental assumptions developed for the 2016 IRP with the caveat that it is subject to change.

D. Analyze and document the cost of any transmission grid upgrades or additions needed to address transmission grid reliability, stability, or voltage support impacts that could result from the retirement of any existing Empire coal-fired generating unit in the time period established in the IRP process.

Empire's Response: This issue was addressed in the last two Empire Annual Update cases in 2014 and 2015. If Staff Issue D is included in the Commission's order, Empire plans to revisit the previous response and provide any updates.

E. Analyze and document the range of potential levels of distributed generation in Empire's service territory for the 20-year planning horizon and the potential impacts of each identified level of distributed generation, and in particular distributed solar generation, on Empire's preferred resource plan. The potential impacts should quantify both the amount of electrical energy the distributed generation is expected to provide to the grid and the amount of electrical energy that the distributed generation customers are expected to consume on site that will offset the amount that Empire would normally provide to those customers.

Empire's Response: This issue was addressed by Empire for the 2015 Annual Update. If Staff Issue E is included in the Commission's order, Empire will expand upon that response as appropriate for the 20-year planning horizon of the 2016 IRP.

DE's Suggested Issues and Empire's Comments:

2. Describe any assessments of the value of solar ("VOS") performed or used by the Company specifically for its Missouri service territory.

Empire's Response: Empire reads this suggested issue as asking Empire to describe any assessment of VOS that Empire is currently performing or using. In the event DE Issue 2 would require Empire to perform a VOS assessment, Empire objects to DE Issue 2 being included as a special contemporary issue. The policy objectives of the IRP Rules, 4 CSR 240-22.010(2)(A), instructs each utility to "consider and analyze demand-side resources, renewable energy, and supply-side resources on an equivalent basis." As such, Empire should evaluate all resources equivalently, without being required to make special assessments of specified resource types.

If DE Issue 2 is included as a special contemporary issue for Empire, Empire requests clarification from the Commission regarding how to perform a VOS assessment.