

**STATE OF MISSOURI  
PUBLIC SERVICE COMMISSION**

At a session of the Public Service  
Commission held by telephone  
and internet audio conference  
on the 4<sup>th</sup> day of November,  
2020.

In the Matter of a Determination of Special )  
Contemporary Resource Planning Issues to be )  
Addressed by The Empire District Electric )  
Company in Its Next Triennial Compliance )  
Filing or Next Annual Update Report )

**File No. EO-2021-0066**

**ORDER ESTABLISHING SPECIAL CONTEMPORARY RESOURCE  
PLANNING ISSUES**

Issue Date: November 4, 2020

Effective Date: November 14, 2020

A provision in the Commission's electric utility resource planning rule, 20 CSR 4240-22.080(4), requires Missouri's electric utilities to consider and analyze special contemporary issues in their integrated resource plan (IRP) triennial compliance filings or in their annual IRP update reports. The regulation provides that by September 15 of each year, the Commission's Staff (Staff), the Office of the Public Counsel (Public Counsel), and other interested stakeholders may file suggested issues for consideration. The regulation allows the utilities and other stakeholders until October 1 to file comments regarding the suggested issues. The Commission is then to issue an order by November 1 of each year specifying the list of special contemporary issues that each electric utility must address. At Public Counsel's request, and with the assent of The Empire District Electric Company d/b/a Liberty (Liberty) and Staff, the Commission extended the filing dates by a week to

September 22 and October 8. Consequently, the filing of this order has also been extended by one week.

Public Counsel filed suggested special contemporary issues for Liberty to analyze and respond to in its 2021 annual update IRP Filing. Liberty filed responses to those suggestions. The Commission must now determine what special contemporary issues Liberty should address.

This is not a contested case. The Commission does not need to hear evidence before reaching a decision and does not need to make findings of fact and conclusions of law in announcing that decision.<sup>1</sup> The Commission's rule gives the Commission broad discretion in determining what issues a utility should be required to address, indicating:

[t]he purpose of the contemporary issues lists is to ensure that evolving regulatory, economic, financial, environmental, energy, technical, or customer issues are adequately addressed by each utility in its electric resource planning. Each special contemporary issues list will identify new and evolving issues but may also include other issues such as unresolved deficiencies or concerns from the preceding triennial compliance filing.<sup>2</sup>

After considering these factors, the Commission will adopt the list of special contemporary issues set forth in this order. The Commission has chosen these issues because they are of particular interest and importance and should be addressed in Liberty's IRP filing. Liberty may already plan to address these issues in its annual update IRP filing apart from their designation as special contemporary issues, or, it may believe it has already adequately addressed some of these issues in a previous IRP filing, or some other filing. If that is so, then it does not need to undertake any additional analysis because of this designation and may simply explain in its upcoming IRP filing exactly where the

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<sup>1</sup> *State ex rel. Public Counsel v. Public Service Com'n*, 259 S.W.3d 23, 29 (Mo. App. W.D. 2008).

<sup>2</sup> 20 CSR 4240-22.080(4).

Commission can find that other analysis. The Commission does not intend that a utility spend an unreasonable amount to address any special contemporary issue. If Liberty finds that the cost to address a special contemporary issue is excessive, it may explain its concerns in its next IRP filing, while addressing the issue to the extent reasonably possible.

To give Liberty as much time as possible to examine these issues before its next IRP filing, the Commission will make this order effective in ten days.

**THE COMMISSION ORDERS THAT:**

1. The Empire District Electric Company d/b/a Liberty shall analyze and document the following special contemporary issues in its 2021 annual update IRP filing:

**(A) Impact of Falling Energy Market Prices in SPP Market.**

Model the current preferred plan both with stable (flat) and with declining market prices. The resulting modeled bill impacts should be compared to the currently forecasted bill impacts to give a more likely range of bill impacts of the utility's preferred resource plan.

**(B) Virtual Power Plant.**

- (1) Determine the necessary customer-owned solar penetration and the steps it would need to take to achieve the penetration within its service territory to justify a virtual power plant option as a resource candidate in future supply-side generation planning and modeling scenarios.
- (2) Examine the possibility of using other DER resource candidates in addition to customer-owned solar as the basis for development and operation of a virtual power plant.

**(C) Small Modular Reactors**

Investigate the option of a small nuclear reactor as a resource candidate in future supply-side generation planning and modeling scenarios.

**(D) Combustion Turbine Conversion to Combined Cycle Units**

(1) Identify existing combustion turbines and consider (to the extent applicable) the conversion of combustion turbine units to combined cycle units as a resource candidate in supply-side generation planning and modeling scenarios.

(2) As an alternative to the conversion to combined cycle units, evaluate the redevelopment of fossil-fueled generations sites that are either set for retirement or requiring environmental mitigation for opportunities to integrate lower or zero-emitting energy production including storage as resource candidates in supply-side generation planning and modeling scenarios.

**(E) Grain Belt Express Energy**

Include Grain Belt Express Energy as a Power Purchase Agreement resource candidate in supply-side generation planning and modeling scenarios.

**(F) Long-Duration Storage**

Consider the potential feasibility of long-duration electricity storage applications within a 20-year planning horizon. That is, at least a cursory review of best available technology and promising options of new long-duration electricity storage systems (as opposed to old technology such

as pumped hydro). This does not require specific modeling of long-duration electricity storage technology that has not been proved commercially. (The Commission is interested in the stacking concrete blocks for purposes of energy storage as one possible option.)

**(G) Integrated Distribution Planning**

Analyze the benefits of integrated distribution planning as a way to manage distribution grid investments in a manner that reduces peaks and fills valleys in load profiles and lowers overall system costs with a combination of energy efficiency, demand response, electric vehicles, distributed generation, storage, advanced metering, and pricing strategies such as time-of-use rates (TOU) for electric vehicles and inclining block rate (IBR).

**(H) Solar**

- (1) Assess the value of a solar tariff that encourages distributed solar installers to optimize the direction that solar panels face to provide one kWh during the utility's peak and provide maximum benefits for all utility customers.
- (2) Conduct a Value of Solar study to inform efforts relating to integrated resource planning. A Value of Solar study is a comprehensive analysis of the cost avoided and benefits created for the grid, electricity customers, and society as result of the generation of solar energy. Because solar energy is often interconnected at the distribution level of the grid, such a study, done correctly, will capture distribution level benefits and costs that cannot be captured by

wholesale level avoided cost estimates. The immediate benefit of such a study is to understand the contributions and costs related to distributed solar generation beyond simplistic and subjective allegations of cross subsidies. The utility's Value of Solar study should consider the National Association of Regulatory Utility Commission's *Distributed Energy Resources Rate Design and Compensation* manual, National Renewable Energy Laboratory's *Value of Solar: Program Design and Implementation Considerations*, and the National Energy Screening Project's *National Standard Practice Manual for Distributed Energy Resources* among any other industry guidance on value of solar study development and implementation.

**(I) FERC Order 2222**

Evaluate the options of potential upgrades to the utility's distribution system needed in light of FERC Order 2222.

2. This order shall become effective on November 14, 2020.



**BY THE COMMISSION**

A handwritten signature in black ink that reads "Morris L. Woodruff".

Morris L. Woodruff  
Secretary

Silvey, Chm., Kenney, Rupp, Coleman, and  
Holsman CC., concur.

Woodruff, Chief Regulatory Law Judge

**STATE OF MISSOURI**

**OFFICE OF THE PUBLIC SERVICE COMMISSION**

**I have compared the preceding copy with the original on file in this office and I do hereby certify the same to be a true copy therefrom and the whole thereof.**

**WITNESS my hand and seal of the Public Service Commission, at Jefferson City, Missouri, this 4<sup>th</sup> day of November, 2020.**



  
**Morris L. Woodruff**  
**Secretary**

**MISSOURI PUBLIC SERVICE COMMISSION**

**November 4, 2020**

**File/Case No. EO-2021-0066**

**Missouri Public Service  
Commission**

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***Enclosed find a certified copy of an Order or Notice issued in the above-referenced matter(s).***

***Sincerely,***



**Morris L. Woodruff  
Secretary**

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Recipients listed above with a valid e-mail address will receive electronic service. Recipients without a valid e-mail address will receive paper service.