STATE OF MISSOURI PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held at its Office in Jefferson City, Missouri on the 23rd day of October, 2024.

In the Matter of a Determination of Special Contemporary Resource Planning Issues to be Addressed by Ameren Missouri in its Next Triennial Compliance Filing or Next Annual Update Report

File No. EO-2025-0077

ORDER ESTABLISHING SPECIAL CONTEMPORARY RESOURCE PLANNING ISSUES

Issue Date: October 23, 2024

Effective Date: November 2, 2024

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 (OPC), 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.

OPC and Sierra Club filed suggested special contemporary issues for Union Electric Company d/b/a Ameren Missouri (Ameren Missouri) to analyze and respond to in its annual update IRP Filing. Ameren Missouri filed responses to those suggestions. The Commission must now determine what special contemporary issues Ameren Missouri should address.

In this file, 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.¹ 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.²

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 Ameren Missouri's IRP filing. Ameren Missouri may already plan to address these issues in its triennial 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, 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 Commission can find that other analysis. The Commission does not intend that a utility spend an unreasonable amount to address any special contemporary issue is

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

² 20 CSR 4240-22.080(4).

excessive, it may explain its concerns in its next IRP filing, while addressing the issue to the extent reasonably possible.

To give Ameren Missouri 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. Ameren Missouri shall analyze and document the following special contemporary issues in its 2025 annual update IRP filing:

A. Model and explicitly present future resource adequacy scenarios based on the following assumptions:

1. Incorporation of the utility's Commission-approved and/or anticipated demand-side programs and the utility's Commission- approved demand-side rates;

2. Only utility's Commission-approved demand-side rates;

3. Alternative demand-side rates options that may be needed to meet near-term resource adequacy;

4. Indicate whether or not naturally occurring savings and/or federally-sponsored DSM savings are included in the modeling. If yes, these savings should be identified and separated as well.

5. Include an explicit section within the DSM volume and the executive summary where low, medium, and high time-of-use (TOU) differentials are modeled and presented with expected demand savings articulated separate and aside from other demand side management practices.

3

B. Conduct a literature review of best practices on how other utilities are accounting for the addition of data centers in their IRPs and how risks can be minimized.

C. Model large load growth scenarios stemming from: 1) data centers with a demand of 30 megawatts or greater; 2) potential re-shoring of industries, specifically manufacturing or materials refinement; and 3) electrification of buildings and vehicles as a result of federal mandates changes in the marketplace, or evolving consumer preference.

D. Provide a review of the technology and methods currently available, as well as the dollar impact for relevant and projected resources, to be compliant with the Environmental Protection Agency's rules targeting reduction of fossil fuelfired power plant pollution.

E. Investigate the option of a supercritical carbon dioxide power cycle plant as a resource candidate in future supply-side generation planning and modeling scenarios.

F. Model for low, medium, and high interconnection cost estimates that are supported by historic total interconnection costs by fuel type for Midcontinent Independent System Operator (MISO) in its resource planning scenarios.

G. Articulate the estimated project length for all generation resources given the current MISO backflow, and the overall demand for generation resources across the United States.

H. Describe any research, investigation, consideration, and/or inclusion of long-duration energy storage (10 or more hours) as well as non-chemical energy

4

storage technologies the Company performed in the development of its IRP update/ triennial analysis. Nonchemical energy storage technologies mainly refer to thermal or mechanical methods of storing energy which could include storing heat in solid materials such as sand, rocks, or concrete blocks or liquids such as molten salts or water and processes utilizing compression, displacement against gravity, rotation, or accumulation of kinetic energy. Include any details or analysis of costs estimates if relied upon.

 Explore the design and feasibility of piloting energy storage projects with the specific objective of enhancing system reliability and increasing capacity accreditation of renewable energy resources.
Discuss the opportunities and benefits facilitated by inclusion of the explored technology and detail any identified limitations.

2. Detail any other emerging technologies intended to improve reliability or resource adequacy discovered by the Company or suggested by stakeholders that was considered and describe any pertinent analysis or findings.

- I. Evaluate the potential for coal to natural gas conversions.
- 2. This order shall become effective on November 2, 2024.



BY THE COMMISSION

Nancy Dippell

Nancy Dippell Secretary

Hahn, Ch., Coleman, Holsman Kolkmeyer, and Mitchell CC., concur.

Pridgin, Deputy 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 23rd day of October 2024.



Wy Dippell

Nancy Dippell Secretary

MISSOURI PUBLIC SERVICE COMMISSION

October 23, 2024

File/Case No. EO-2025-0077

MO PSC Staff	Office of the Public Counsel
Staff Counsel Department	(OPC)
200 Madison Street, Suite 800	Marc Poston
P.O. Box 360	200 Madison Street, Suite 650
Jefferson City, MO 65102	P.O. Box 2230
staffcounselservice@psc.mo.gov	Jefferson City, MO 65102
	opcservice@opc.mo.gov

Clean Grid Alliance Legal Department 570 Asbury St., Ste. 201 St. Paul, MN 55104

Consumers Council of Missouri	Council for the New Energy	Dutchtown South Community
Legal Department	Economics	Corporation
3407 S. Jefferson	Legal Department	Legal Department
St. Louis, MO 63118	1390 Yellow Pine Ave.	4204 Virginia Ave
	Boulder, CO 80304	319 North 4th Street
		St. Louis, MO 63111

Grain Belt Express, LLC

Legal Department 1 South Wacker Drive Suite 1800 Chicago, IL 60606 Homes for All St. Louis Legal Department 2748 Chippewa Street St. Louis, MO 63118 srubenstein@greatriverslaw.org

Midwest Energy Consumers Group

srubenstein@greatriverslaw.org

Legal Department 308 E. High Street, Suite B101 Jefferson City, MO 65101 tim.opitz@opitzlawfirm.com

Missouri Electric Commission Legal Department 2200 Maguire Blvd.

Columbia, MO 65201-7608

Missouri Industrial Energy Consumers (MIEC) Legal Department 130 S. Bemiston, Suite 200 St. Louis, MO 63105 dplescia@chgolaw.com

National Association for the Advancement of Colored People Legal Department 4805 Mt. Hope Drive Baltimore, MD 21215

Sierra Club

Legal Department 2101 Webster St., Ste. 1300 Oakland, CA 94612 Natural Resources Defense Council Legal Department 20 North Wacker Drive, Suite 1600 Chicago, IL 60606

Union Electric Company

Legal Department 1901 Chouteau Avenue P.O. Box 66149, Mail Code 1310 St. Louis, MO 63103 amerenmoservice@ameren.com

MO PSC Staff Carolyn Kerr 200 Madison Street Jefferson City, MO 65101 carolyn.kerr@psc.mo.gov

Renew Missouri

Legal Department 915 East Ash Columbia, MO 65201 Enclosed find a certified copy of an Order or Notice issued in the above-referenced matter(s).

Sincerely,

Nancy Dippell Nancy Dippell Secretary

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