

Exhibit No.: \_\_\_\_\_  
Issues: Rate Base, Capital Improvements,  
Generation  
Witness: Brian Berkstresser  
Type of Exhibit: Direct Testimony  
Sponsoring Party: The Empire District  
Electric Company d/b/a Liberty  
Case No.: ER-2024-0261  
Date Testimony Prepared: November 2024

**Before the Public Service Commission  
of the State of Missouri**

**Direct Testimony**

**of**

**Brian Berkstresser**

**on behalf of**

**The Empire District Electric Company d/b/a Liberty**

**November 6, 2024**



**Liberty**™

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THE EMPIRE DISTRICT ELECTRIC COMPANY D/B/A LIBERTY  
BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION  
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1 **I. INTRODUCTION**

2 **Q. Please state your name and business address.**

3 A. My name is Brian Berkstresser. My business address is 602 S. Joplin Avenue, Joplin,  
4 Missouri 64801.

5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Liberty Utilities Service Corp. (“LUSC”) as the Senior Director of  
7 Generation Operations of Liberty’s Central Region, which includes The Empire  
8 District Electric Company d/b/a Liberty (“Liberty” or the “Company”).

9 **Q. On whose behalf are you testifying in this proceeding?**

10 A. I am testifying on behalf of Liberty.

11 **Q. Please describe your educational and professional background.**

12 A. I have a Bachelor of Science in mechanical engineering from the University of Missouri  
13 – Rolla (now called “Missouri University of Science and Technology”). I have a  
14 professional engineering license in the state of Missouri, and I have a Masters in  
15 Business Administration from William Woods University.

16 I have been in utility operations for over 25 years. My career with the Company  
17 began in 1995. I started as a plant engineer at the Asbury power plant. I then moved to  
18 our Energy Center plant where I helped install Units 3 and 4 in addition to being  
19 responsible for running Units 1 and 2. I then moved to our Supply Management group  
20 where I was responsible for the energy traders, system operators, and fuel procurement  
21 groups. After that, I returned to the Energy Center as the plant manager. I then moved

1 to the State Line generation plant and was the plant director there for over 10 years. In  
2 November 2023, I became Senior Director – Generation Operations, responsible for all  
3 generation fleets in the Central Region for Liberty.

4 **Q. Have you previously testified before the Missouri Public Service Commission**  
5 **(“Commission”) or any other regulatory agency?**

6 A. Yes, I have submitted testimony before this Commission.

7 **Q. What is the purpose of your direct testimony in this proceeding?**

8 A. My testimony will focus on significant capital investments in Liberty’s generation  
9 facilities since its last general rate case, Case No. ER-2021-0312. I present one  
10 schedule, **Direct Schedule BB-1**, which was prepared by me or under my supervision.  
11 In addition, I explain the importance of water to the operation of Liberty’s State Line  
12 generation plant and the impact Missouri American Water’s (“MAW”) general rate  
13 case rate changes have had on Liberty’s generation expenses.

14 **II. GENERATION CAPITAL INVESTMENTS**

15 **Q. What significant capital investments has the Company made in its generation fleet**  
16 **since its last general rate case that it seeks to include in rate base?**

17 A. For this period, which began in July 2021 and continues through September 2024, the  
18 Company has invested just over \$84.1 million of gross plant in its existing generation  
19 facilities. The Company continually reinvests in its infrastructure so that its generation  
20 facilities are capable of providing reliable and efficient service to customers. As  
21 detailed in the Company’s recent Integrated Resource Plan Annual Report,<sup>1</sup> the  
22 Southwest Power Pool (“SPP”) has recently increased its required planning reserve

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<sup>1</sup> Case No. EO-2023-0294, EFIS Item No. 5, Liberty’s 2023 Integrated Resource Plan Annual Update Report, at Section 6.

1 margin, and further increases are under consideration. SPP is developing changes to  
2 accreditation processes for all generation types that will likely reduce the Company's  
3 current accredited capacity. Some of the investments completed since the prior general  
4 rate case seek to improve or maintain current accredited capacity, such as the upgrades  
5 to State Line's Combined Cycle 2-1 combustion turbine. Many of these investments  
6 also support the Company's goal of net-zero scope 1 and scope 2 emissions by 2050.

7 **Q. Please describe your Direct Schedule BB-1.**

8 A. **Direct Schedule BB-1** lists all generation projects completed by Liberty since the last  
9 general rate case that had costs of \$1 million or more. As shown in this schedule, 20  
10 projects met that cost threshold, including a hydro generation plant crane extension  
11 project and a hydro generation head gate project for continued reliable, efficient and  
12 zero-carbon-emission generation. There was also a purchase of a capital spare  
13 transformer, which can serve in multiple locations and increases the reliability of our  
14 generation fleet.

15 **Q. Can you describe in more detail some of the major investments made since the**  
16 **Company's last rate case?**

17 A. Yes, below are specific generation projects completed since the Company's last general  
18 rate case that had costs of \$5 million or more. Those projects are:

- 19 • PO0012 – Improvements to Powerhouse: This project extended the overhead crane  
20 as well as upgraded the headgates at the Ozark Beach hydro facility.
- 21 • PCC006 – CT 2-1 upgrades at major inspection: This project upgraded one of the  
22 combustion turbines and related auxiliaries of the State Line Combined Cycle unit

1 at its second major inspection.<sup>2</sup> The upgrades allow the combustion turbine to  
2 produce additional mega-watts of electricity and improved the heat rate of the unit.

3 • PR0007 – Turbine Gen & Aux Equip Add: The major components of this project  
4 were the purchase of a spare transformer that is capable of being used at multiple  
5 locations within the Liberty Central generation fleet. There were also lube oil  
6 coolers and other instrumentation purchased on this project.

7 • PS0006 – SL1 Spring 2023 HGP: This project began as a Hot Gas Path (“HGP”)  
8 inspection of the State Line 1 (simple cycle) combustion turbine. However, the  
9 HGP inspection revealed cracks in one of the combustion turbine rotor discs and  
10 the Original Equipment Manufacturer refused to certify the machine to be able to  
11 return to service. Through an accelerated evaluation process, diligent procurement,  
12 and installation work, the unit, with a certified new turbine rotor, was able to be  
13 placed back into service in July of 2023. This reduced the risk of potential de-rating  
14 of the unit under SPP’s performance-based accreditation construct, and the unit was  
15 available to serve our customers for as much of the summer season as possible.

16 **III. WATER USAGE AT STATE LINE PLANT & IMPACT OF MAW’S RECENT**  
17 **RATE CHANGES**

18 **Q. How is water used at Liberty’s State Line generation plant?**

19 A. Liberty’s State Line generation plant uses water in the steam cycle of the combined  
20 cycle plant. The primary use is in the cooling tower as a heat exchanger for the steam  
21 turbine. Therefore, Liberty’s water usage is important to efficient operation of the State  
22 Line plant.

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<sup>2</sup> The second major inspection was required due to the unit having been operated more hours than it had originally been rated to operate.

1 **Q. Does MAW supply water to Liberty's State Line generation plant?**

2 A. Yes. Liberty's State Line plant takes water delivery service from MAW under MAW's  
3 Rate J Schedule with a special contract.

4 **Q. What was the impact to Liberty's operational expenses of MAW's most recently**  
5 **completed general rate case, Case No. WR-2022-0303, and its increased rates for**  
6 **Rate J customers effective May 28, 2023?**

7 A. MAW's general rate increase correspondingly increased Liberty's operational  
8 expenses during the test year proposed by the Company for this proceeding. As  
9 explained by Company witness Charlotte Emery's direct testimony, EXP ADJ 24, this  
10 increase in operational expenses should be annualized, to reflect the increase in the  
11 Company's expenses going forward.

12 **IV. CONCLUSION**

13 **Q. Does this conclude your direct testimony at this time?**

14 A. Yes.

**VERIFICATION**

I, Brian Berkstresser, under penalty of perjury, on this 6th day of November, 2024,  
declare that the foregoing is true and correct to the best of my knowledge and belief.

/s/Brian Berkstresser