**Exhibit No.:** Issue(s):Depreciation Rates/Riverton Units 10 and 11/ Riverton Units 13 and 14/Heat Rate Testing/ Witness/Type of Exhibit: **Isolated Adjustments** Robinett/Direct **Public Counsel** Case No.: ER-2024-0261

#### **DIRECT TESTIMONY**

#### OF

#### **JOHN A. ROBINETT**

Submitted on Behalf of the Office of the Public Counsel

#### THE EMPIRE DISTRICT ELECTRIC COMPANY D/B/A LIBERTY

#### FILE NO. ER-2024-0261

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\* \_\_\_\_\_\* Denotes Highly Confidential Information that has been redacted

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Denotes Confidential Information that has been redacted

July 2, 2025

### **PUBLIC**

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#### **DIRECT TESTIMONY**

#### OF

#### JOHN A. ROBINETT

#### THE EMPIRE DISTRICT ELECTRIC COMPANY D/B/A LIBERTY UTILITIES CASE NO. ER-2024-0261

1	Q.	What is your name and what is your business address?
2	A.	John A. Robinett, PO Box 2230, Jefferson City, Missouri 65102.
3	Q.	By whom are you employed and in what capacity?
4	A.	I am employed by the Missouri Office of the Public Counsel ("OPC") as a Utility Engineering
5		Specialist.
6	Q.	Have you previously provided testimony before the Missouri Public Service
7		Commission?
8	А.	Yes. I have testified in front of the Missouri Public Service Commission ("Commission")
9		in both my former occupation with Commission Staff ("Staff") and in my current position
10		with OPC.
11	Q.	What is your work and educational background?
12	A.	A copy of my work and educational experience is attached to this testimony as Schedule
13		JAR-D-1.
14	Q.	What is the purpose of your direct testimony?
15	А.	In this testimony I will first provide some helpful depreciation terminology definitions. The
16		purpose of this testimony is to recommend depreciation rates for Empire's generation
17		facilities, recommend a disallowance related to the Riverton 10 and 11 repair costs,
18		provide a recommendation that the sizing of Riverton units 13 and 14 are imprudent in
19		light of the fact that Liberty has filed a notice for additional resources and the rated
20		capacity of new units does not replace units 10 and 11, and provide a recommendation

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related to Liberty's heat rate testing and documentation of results. I address a concern

1		related to the accumulated depreciation reserve of non-AMI meters and finally recommend
2		an isolated adjustment for accumulated depreciation accrual through the effective date of
3		new rates.
4	Q.	What indications of mismanagement do you describe in your testimony?
5	А.	I describe:
6		• Decision and timeline related to the decision to repair Riverton unit 10
7		• Decision and timeline to replace Riverton units 10 and 11 in Southwest
8		Power Pool
9		• Decision on the sizing of Riverton units 13 and 14 which will replace
10		Riverton units 10 and 11.
11		• Failure to comply with Stipulation and agreement from EA-2023-0131
12		• Failure to comply with Commission Rule 20 CSR 4240-20.090(2)(A)15
13		with providing heat rate testing reports and not all units were timely tested.
14	<u>Depr</u>	eciation Definitions
15	Q.	Is there terminology the Commission should know to better understand your ultimate
16		recommendations?
17	A.	Yes. For this testimony, the following depreciation terms need to be defined: cost of
18		removal, depreciation, amortization, vintage year, final retirement, gross salvage, interim
19		retirements, interim salvage, net salvage, and retirement.
20	Q.	From where are you drawing your definitions?
21	A.	I will be citing two different sources. The first source is the Public Utility Depreciation
22		Practices published by the National Association of Regulatory Utility Commissioners
23		("NARUC") in August, 1996, pages 313 through 327. The second source is Introduction

to Depreciation for Public Utilities and Other Industries ("Introduction to Depreciation"), published by the Edison Electric Institute ("EEI") and the American Gas Association ("AGA") from April 2013, beginning at page 165.

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#### Q. How does NARUC define depreciation?

5 A. Depreciation is the loss in service value not restored by current maintenance, incurred in 6 connection with the consumption or prospective retirement of utility plant in the course of 7 service from causes that are known to be in current operation, against which the company 8 is not protected by insurance, and the effect of which can be forecast with reasonable 9 accuracy. Among the causes to be considered are wear and tear, decay, action of the 10 elements, inadequacy, obsolescence, changes in the art, changes in demand, and the 11 requirement of public authorities.

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#### Q. How does NARUC define amortization?

13 The process of allocating a fixed amount, such as the total cost of an asset, to an expense A. 14 account over future accounting periods.

#### 15 Q. How does NARUC define a vintage year?

Year of placement<sup>1</sup> of a group of property. 16 A.

#### How does NARUC define a final retirement? 17 Q.

- 18 A. A final retirement is the retirement of a major structure unit in its entirety, or a very large 19 part of it, as opposed to interim retirements.
- 20 Q. How does NARUC define gross salvage?
- 21 A. Gross salvage is the amount recorded for the property retired due to the sale, 22 reimbursement, or reuse of the property.

<sup>&</sup>lt;sup>1</sup> Placement is equivalent to in-service date

1	Q.	How does NARUC define an interim retirement?
2	A.	An interim retirement is the retirement of component parts of a major structure prior to the
3		complete removal of the retirement unit from service.
4	Q.	How does NARUC define interim salvage?
5	А.	Interim salvage is the salvage received from the disposition of plant as a result of interim
6		retirements.
7	Q.	How does NARUC define net salvage?
8	А.	Net salvage is the gross salvage for the retired property less its cost of removal.
9	Q.	How does NARUC define a retirement?
10	А.	A retirement is the sale, abandonment, destruction, or withdrawal of assets from service.
11	Q.	How does Introduction to Depreciation define cost of removal?
12	A.	Cost of removal is the costs to demolish, dismantle, tear down, or otherwise remove plant
13		from service, including the cost of handling and transportation. Cost of removal is also
14		used interchangeably with cost of retirement for assets that are retired in place, such as a
15		gas pipeline.
16	Q.	How does Introduction to Depreciation define an interim retirement?
17	A.	Introduction to Depreciation defines interim retirements as the retirement of individual
18		assets occurring prior to the retirement of the overall property group.
19	Q.	How does Introduction to Depreciation define net salvage?
20	A.	Net salvage is defined as the difference between the value of salvage and cost of removal
21		resulting from the removal, abandonment, or other disposition of plant. Positive net salvage
22		results when salvage values exceed removal costs. Negative net salvage results when

1		removal costs exceed the salvage value. Positive net salvage decreases the cost to be
2		recovered through depreciation expense and negative net salvage increases it.
3	Q.	How does Introduction to Depreciation define a retirement unit?
4	A.	A retirement unit is the smallest unit of plant for which addition and retirement records are
5		maintained as defined by utility process and procedures manuals.
6	Gener	ration Depreciation
7	Q.	How did you calculate depreciation rates for Liberty's Generation Facilities?
8	A.	I utilized the projected retirement dates for each of the generating units and common property <sup>2</sup>
9		provided by Liberty in response to OPC data request number 8501 and utilized the plant-in-
10		service and accumulated depreciation reserves provided in response to Staff Data Request
11		Number 0016 which was through September 30, 2024.
12	Q.	Did Liberty provide the projected retirement dates for all its Generation Facilities?
13	А.	No. In response to OPC data request number 8501 Liberty only provided projected retirement
14		dates for generating facilities that were to be retired in their preferred plan of their integrated
15		resource planning. Retirement dates were provided for Iatan 1, Riverton units 10 & 11, and
16		Energy Center units 1 & 2 and three purchase power agreements.
17		Liberty failed to provide projected retirement dates for the following facilities: Iatan
18		2, Plum Point, Riverton 12 CC, Energy Center units 3 and 4, State Line unit 1, State Line CC,
19		Ozark Beach units 5, 6, 7, & 8, North Fork Ridge Wind, Kings Point Wind, Neosho Ridge
20		Wind, and Prosperity Solar. The response to OPC data request 8501 is attached as schedule
21		JAR-D-2.

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<sup>&</sup>lt;sup>2</sup> Energy Center units 1 and 2 are combined.. Energy Center units 3 and 4 are combined. Ozark Beach units 5, 6, 7, and 8 are combined. Each of the wind farms are made up of multiple generators but are combined by the wind farm for plant-in-service and accumulated depreciation reserves.

# Q. What retirement dates did you use for the facilities for which Liberty did not provide estimated retirement dates?

A. I went back to the 2019 depreciation study that was submitted by Liberty in Case Number
 ER-2021-0312 filed on May 28, 2021, and utilized the projected retirement dates from that study.

#### 6 Q. What other assumptions did you use to perform your calculations?

A. I utilized the authorized net salvage percentages associated with the ordered depreciation rates from Case Number ER-2021-0312. Additionally, I used Liberty's response to Staff data request number 0016 in this case for the plant-in-service and accumulated reserves values as of September 30, 2024, for starting points of my calculations of how much is needed to be collected from ratepayers over the remaining lives of the facilities.

#### Q. How did you calculate your recommended depreciation rates?

A. First, I calculated the amount that needs to be collected—the original cost plant-in-service value plus the net salvage value. Depending on which factor of net salvage is driving the calculation—gross salvage or cost of removal—will determine when the utility needs to collect more than the original cost, i.e, cost of removal is out-weighing gross salvage for the retired assets. If gross salvage is the larger quantity, then the utility will not need to recover the full original cost as the net salvage proceeds will be available at the end of the useful life of the asset. To calculate the amount needed to be recovered I multiplied the current plant-inservice by the quantity 1- (Net salvage %). Where Net salvage = (Gross Salvage – Cost of Removal). This calculation should provide the amount that needs to be collected. The next step is to take the total that needs to be collected and subtract from it the currently accrued depreciation reserve to get the remaining amount that needs to be collected over the remaining

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1		life of the assets. Then the next step is to calculate the annual accrual based on the remaining
2		amount to accrue and the remaining life of the facility based on the projected retirement date
3		of each unit or grouped units. The annual accrual is the remaining amount to be collected
4		divided by the remaining life of the facility. To get the depreciation rates for the accounts I
5		took the annual accrual value and divide it by the original plant-in-service.
6	Q.	What rates did you calculate for Empire's generation facilities?
7	A.	My depreciation rates for Empire's generation facilities are attached as Schedule JAR-D-3.
8	Q.	Do any of your depreciation rates concern you?
9	A.	Yes. Specifically, the rates for Riverton units 10 and 11 stand out as outliers. My depreciation
10		rates are all roughly 30%, as the total accrued value stands at about 30-35% accrued. When
11		this is paired with the retirement date of 2026, the depreciation rates indicate that over the
12		next two years Liberty needs to collect approximately \$10 million dollars annually.
12		
12	Q.	Why are you concerned with your rates for Riverton units 10 and 11?
	<b>Q.</b> A.	
13		Why are you concerned with your rates for Riverton units 10 and 11?
13 14		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance
13 14 15		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance was \$33,797,486 with an accumulated depreciation reserve of \$13,147,370 which is a net
13 14 15 16		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance was \$33,797,486 with an accumulated depreciation reserve of \$13,147,370 which is a net plant value of \$20,650,116. Since January 31, 2020, the total company plant-in-service value
13 14 15 16 17		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance was \$33,797,486 with an accumulated depreciation reserve of \$13,147,370 which is a net plant value of \$20,650,116. Since January 31, 2020, the total company plant-in-service value has increased from \$24,927,332 to \$33,797,486. This is an increase of \$8,870,154 or an
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> </ol>		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance was \$33,797,486 with an accumulated depreciation reserve of \$13,147,370 which is a net plant value of \$20,650,116. Since January 31, 2020, the total company plant-in-service value has increased from \$24,927,332 to \$33,797,486. This is an increase of \$8,870,154 or an increase of 35.58% for aging facilities that in the 2021 rate case Empire projected to be retired
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> </ol>		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance was \$33,797,486 with an accumulated depreciation reserve of \$13,147,370 which is a net plant value of \$20,650,116. Since January 31, 2020, the total company plant-in-service value has increased from \$24,927,332 to \$33,797,486. This is an increase of \$8,870,154 or an increase of 35.58% for aging facilities that in the 2021 rate case Empire projected to be retired in 2033, but the Integrated Resource Plan Liberty filed in Case Number EO-2021-0331 on
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> </ol>		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance was \$33,797,486 with an accumulated depreciation reserve of \$13,147,370 which is a net plant value of \$20,650,116. Since January 31, 2020, the total company plant-in-service value has increased from \$24,927,332 to \$33,797,486. This is an increase of \$8,870,154 or an increase of 35.58% for aging facilities that in the 2021 rate case Empire projected to be retired in 2033, but the Integrated Resource Plan Liberty filed in Case Number EO-2021-0331 on April 1, 2022, projected a retirement date of 2025. Now Liberty is scheduling Riverton units
<ol> <li>13</li> <li>14</li> <li>15</li> <li>16</li> <li>17</li> <li>18</li> <li>19</li> <li>20</li> <li>21</li> </ol>		Why are you concerned with your rates for Riverton units 10 and 11? Based on information from Empire, as of September 30, 2024, the plant-in-service balance was \$33,797,486 with an accumulated depreciation reserve of \$13,147,370 which is a net plant value of \$20,650,116. Since January 31, 2020, the total company plant-in-service value has increased from \$24,927,332 to \$33,797,486. This is an increase of \$8,870,154 or an increase of 35.58% for aging facilities that in the 2021 rate case Empire projected to be retired in 2033, but the Integrated Resource Plan Liberty filed in Case Number EO-2021-0331 on April 1, 2022, projected a retirement date of 2025. Now Liberty is scheduling Riverton units 10 and 11 to be retired December 2026 according to Empire's response to OPC data request

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# 1Q.Do you have any insight as to why the depreciation rates that you calculated for Riverton2generating units 10 and 11 are outliers?

A. Yes. Simply put, the depreciation rates are driven by the amount needed to be recovered and
over what period of time. By the effective date of new rates in this current case Riverton units
10 and 11 will be projected to have less than a year of expected life. Utilizing starting balances
from Staff data request number 0016 of September 30, 2024, the remaining life of the facilities
was 2.25 years if the facilities retire in December of 2026.

# 8 Q. Are you familiar with Ameren Missouri's unrecovered net investment in its Meramec 9 facility and how that was addressed?

A. Yes. Before Ameren Missouri retired its Meramec generating units, the parties in Case
 Number ER-2021-0240 agreed to, and the Commission ordered, the creation of a regulatory
 asset for the value of uncollected plant-in-service plus the amount of return on the investment
 that was to be collected by Ameren Missouri before the Meramec units were retired. The
 regulatory asset was amortized over a five-year period.

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#### Q. What is your recommendation for Riverton units 10 and 11?

16 A. I recommend a similar treatment for Riverton units 10 and 11-- creation of a regulatory asset 17 with the value of net plant as of December 31, 2025, with the addition of seven months of 18 return as Liberty has indicated the Riverton units will be retired by August 1, 2026. I 19 calculated the plant-in-service and accumulated depreciation reserves out to December 31, 20 2025. That calculation is attached as Schedule JAR-D-4. I calculated the net plant at December 31, 2025 for Riverton units 10 and 11 to be just over eighteen million dollars. I 21 22 recommend a 5-year amortization of the remaining balance with an annual value of 23 \$3,790,017. The creation of the regulatory asset and amortization expense should be coupled

1		with the removal of the facility from rate base and rate base treatment meaning the stopping
2		of depreciation expense on the units. My recommendation provides for a recovery of the net
3		plant in a different manner.
4	River	ton 10 and 11 Repair Costs
5	Q.	Has Liberty complied with condition 4(j) <sup>3</sup> of the Stipulation and Agreement in Case
6		Number EA-2023-0131, which requires it to include testimony of the process for
7		deciding to repair/replace Riverton units 10 and/or 11 in the first-rate case where it
8		seeks to recover those costs through its general rates?
9	А.	I did not find any discussion of repair costs and decisions and timelines when I reviewed
10		the direct testimony Liberty pre-filed to initiate this case.
11	Q.	Is Liberty seeking to recover its costs to repair Riverton Unit 10?
12	А.	Yes. Based on Empire's response to OPC data request 8507 in this case which I have
13		attached as Schedule JAR-D-5C, **
14		
15		**
16	Q.	How much did Liberty spend to repair Riverton unit 10?
17	А.	The amount is **** which Liberty claims is confidential. That amount and
18		how Liberty classified the value is provided in the above mentioned Schedule JAR-D-5C.
19	Q.	Are you concerned with Empire's decision to repair Riverton unit 10?
20	А.	Yes.

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<sup>&</sup>lt;sup>3</sup> Liberty agreed to provide and the Commission ordered Liberty as follows, "In the initial rate case in which Liberty proposes inclusion of the costs of repair/replacement of Riverton Unit 10 and/or Unit 11, Liberty shall provide testimony on the decision process followed during the repair/replacement of Riverton Units 10 and 11 as well as any changes in policy resulting from that process."

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A. As was discussed in Case Number EA-2023-0131 in both the Staff Report<sup>4</sup> and the OPC's response<sup>5</sup> to the Staff's Report, Riverton Unit 10 went offline February 8, 2021, due to a forced outage. Based on Liberty's responses to several Staff data requests issued in Case EA-2023-0131, the outage was due to a fire which was caused by a leaking labyrinth oil seal that caused lube oil to saturate the insulation around the bearing. Heat from the unit eventually caused the oil to ignite. Attachment 1 in Schedule JAR-D-7HC are the data requests from Staff and Liberty's responses that detail the event, and the initial findings and reporting of the fire to the Public Service Commission. Following this forced outage Liberty received several estimates regarding the cost to repair Riverton Unit 10. At some time following the forced outage of Riverton unit 10 and receipt of the cost estimates to repair the unit. Liberty filed an IRP on April 1, 2022. During the Missouri IRP process, Liberty was considering and ultimately decided that replacement of the then inoperable Riverton 10 was its preferred option.

The Southwest Power Pool has a tariff provision which allows utilities to replace existing generating units with new ones and avoid its new generation interconnection process if the request is made within one year from when the old generating unit no longer is in service. The Company's response to OPC data requests show that this is something that the decision makers at Liberty knew or should have known. Despite this, Liberty failed to apply to the SPP to replace Riverton unit 10 within that one-year time frame. Liberty

<sup>&</sup>lt;sup>4</sup> Attached as Schedule JAR-D-6HC

<sup>&</sup>lt;sup>5</sup> Attached as Schedule JAR-D-7HC

1	filed an untimely application with the SPP to replace Riverton unit 10 on January 23, 2023,
2	11 months after the deadline. Acknowledging its error, Liberty concurrently filed with the
3	Federal Energy Regulatory Commission ("FERC") in Docket No. ER23-928-000 a request
4	for a variance from SPP's tariff, but the FERC denied this request for a variance on March
5	23, 2023. <sup>6</sup> At the same time the Liberty decisions regarding Riverton unit 10 were being
6	made, additional concerns regarding Riverton unit 11 arose. ***
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17	*** As a result of these developments, a
18	meeting was held at Liberty on September 5, 2023, (***
19	***) to make a decision about the path forward for Riverton unit 10. It was at this
20	time that the decision was made to repair the unit. <sup>7</sup> According to the 20 CSR 4240 3.190
19	***) to make a decision about the path forward for Riverton unit 10. It was at

<sup>&</sup>lt;sup>6</sup> Attachment 5 in Schedule JAR-D-7HC is the FERC Order denying Waiver Request <sup>7</sup> Attachment 6 in Schedule JAR-D-7HC is Liberty Response to OPC data request number 8527 and 8535 in Case Number EA-2023-0131

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1		data Liberty submitted for January 2024, its Riverton unit 10 ran for the first time on
2		January 16, 2024, since it went offline prior to Winter Storm Uri on February 8, 2021.
3	Q.	What was Liberty's estimate to repair Riverton unit 10?
4	А.	An estimated cost of \$750,000 to repair Riverton unit 10 was provided by Ed Easson (a
5		retired Riverton Plant Manager) on October 28, 2021. This was provided in response to
6		OPC data request number 8530 in Case Number EA-2023-0131.
7	Q.	Do you know how this 2021 estimate compared to Liberty's final cost to repair
8		Riverton unit 10?
9	А.	Yes. The reported value was ** ** than the initial estimate of
10		repair performed by an internal employee for Liberty. Interestingly, the repair costs of unit
11		10 are just shy of the estimated repair costs for unit 11 performed by Ethos. Review of
12		OPC data request 8531 from Case Number EA-2023-0131 shows the estimate provided by
13		Ethos to repair Riverton unit 11; this estimate is attached as Schedule JAR-D-8C. The final
14		cost of repair of Riverton unit 10 is just shy of the estimate that was provided for Riverton
15		unit 11.
16	Q.	What are your opinions of Liberty's decisions about what to do with Riverton unit 10
17		after the February 8, 2021, fire caused a forced outage?
18	А.	It was imprudent for Liberty to have waited to file for its replacement of Riverton unit 10
19		with the Southwest Power Pool ("SPP") until after the year deadline of the SPP tariffs.
20		Liberty responses to OPC data requests clearly show that Liberty's personnel were voting
21		members of the specific SPP working groups and policy committees, and voted in support

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of the SPP generator replacement process which passed.<sup>8</sup> If Liberty had made the decision to replace Riverton units 10 and 11 with the two new units within the one-year deadline, the Company would not have needed to repair Riverton Unit 10. Instead, the Company waited 31 months (February 8, 2021, to September 5, 2023), which includes the issues that has made Riverton unit 11 more costly to repair than unit 10, to make the necessary decision. This was unnecessary delay in the Company's decision making, and ratepayer should not be charged for the costs caused by this inaction.

# Q. What do you recommend for the ratemaking treatment of Liberty's Riverton 10 repair costs?

10 A. The Commission should not forget that Liberty's retail customers paid depreciation 11 expense, return on the investment, and operations and maintenance expense on Riverton 12 unit 10 for the thirty-five months while it was on forced outage. It is important to also note 13 that rate payers are now paying for return on investment, depreciation expense, and 14 operation and maintenance expense for Riverton unit 11 much like they did for unit 10 15 which also was inoperable for the last twenty-six months and will continue to be inoperable 16 until its retirement. Rate payers should not also be paying for the repair costs of Riverton 17 unit 10, that were imprudent.

<sup>&</sup>lt;sup>8</sup> See Liberty's responses to OPC data requests 0008, 0010, and 0013 in Attachment 7 to the OPC Response to Staff Report which is attached as Schedule JAR-D-7HC

#### 1 Riverton units 13 and 14

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- Q. Did you participate in Case Number EA-2023-0131 for new combustion turbines units
  13 and 14 to replace units 10 and 11 at Empire's Riverton generating station?
- A. Yes. I prepared a verified memorandum with attachments Public Counsel filed in response to Staff's Recommendation in that case.

#### 6 Q. Did you express concerns about Liberty's resource adequacy there?

A. Yes. The memorandum and attachments filed in Case Number EA-2023-0131 are attached as Schedule JAR-D-7HC. The first item I discussed was about improving reliability though geographic diversity by locating the facilities at two different generating facilities. The second issue discussed was that the units were not increasing the capacity of Liberty meaning newer units are scheduled to be smaller than units they are replacing.

#### 12 Q. In your opinion are Riverton units 13 and 14 appropriately sized?

13 A. No. In my opinion they should have been larger units, i.e., rated for more capacity. Liberty 14 has filed a sixty-day notice for a Certificate of Convenience and Necessity to Support 15 Resource Adequacy for a natural gas generation in Case Number EA-2025-0299 on April 29, 2025, in response to changes in the planning reserve margin and resource accreditation 16 17 within the SPP. There is no better evidence available than Liberty's intent to file this 18 application that Liberty needs more capacity and that the Riverton units 13 and 14 should 19 have been designed as larger facilities because the timelines for those units coming on 20 service would have been much more cost effective than the potential cost that will come 21 from this new resource.

1	Heat Rate Testing	
2	Q.	What is heat rate?
3	А.	Heat rate is a measure of generating station thermal efficiency, generally expressed in Btu per
4		net kilowatt-hour. It is computed by dividing the total Btu content of fuel burned for electric
5		generation by the resulting net kilowatt-hour generation.
6	Q.	What is the importance of and reason for heat rate testing?
7	А.	Staff discussed the importance of minimum equipment performance standards in the Fuel
8		Adjustment Clause ("FAC") rulemaking case, File Number EX-2006-0472.9
9 10		<i>Concern: Some stakeholders believe that minimum equipment performance standards are needed in these rules.</i>
11 12 13 14 15 16 17 18 19 20		Staff Response: Staff agrees that equipment performance standards should be a part of these rules and has included in the proposed rules requirements to develop generating unit efficiency testing and monitoring procedures. Staff will, as a result of receiving this data, have the ability to monitor each electric utilities' power plants in terms of their capability to efficiently convert fuel to electricity. Any observed reductions over time may be an indication of the utility's need to implement programs to improve efficiency. Staff views this as a very important and necessary detail since the efficiency of each electric utility's power plants directly relates to each electric utility's fuel and purchased power costs."
21		Any intervening party has the ability to monitor the efficiency performance of the plants over
22		time and can identify changes that may exceed normal wear and tear. Parties can then discuss
23		root causes and means to address the underlying issues.

<sup>&</sup>lt;sup>9</sup> Staff Testimony in Support of and Suggested Changes to 4 CSR 240-3.161 and 4 CSR 240-20.090 EFIS item no. 15 Filed 9/7/2006 Attachment A-9 through A-10

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# 1 Q. What is the purpose of the requirement in Commission Rule 20 CSR 4240 2 20.090(2)(A)15<sup>10</sup> that heat rate tests be conducted no more than 24 months prior to the 3 filing of a general electric rate case?

A. Heat rate tests and results are useful for monitoring the generation plant maintenance
practices of a utility. While over their lives generating facilities will become less efficient,
sharp changes in efficiencies may indicate a change in philosophy in maintaining a
generating facility and should draw inquiry of the causes of those changes. This
information is a filing requirement so that the parties can evaluate changes in efficiency
output.

#### 10 Q. Why is this important when a utility is granted a FAC?

A. Under traditional ratemaking, the utility would benefit from any efficiency improvements at the facility that would result in a reduction in fuel costs. This incentive is diminished when a utility is granted a FAC where costs and savings are passed on to the customers.

# Q. Did Liberty's initial filing meet the heat rate testing requirement of Commission Rule 20 CSR 4240-20.090(2)(A)15.?

A. No, it did not. To address heat rate testing, Liberty provides a table attached to Ms. Leigha Palumbo's direct testimony as Schedule LP-8-Final HC.<sup>11</sup> The table reports the generating

<sup>&</sup>lt;sup>10</sup> 15. A level of efficiency for each of the electric utility's generating units determined by the results of heat rate/efficiency tests or monitoring that were conducted or obtained on each of the electric utility's steam generators, including nuclear steam generators, heat recovery steam generators, steam turbines and combustion turbines within twenty-four (24) months preceding the filing of the general rate increase case.

A. The results should be filed in a table format by generating unit type, rated megawatt (MW) output rating, the numerical value of the latest result and the date of the latest result;

B. The electric utility shall provide documentation of the actual test/monitoring procedures. The electric utility may, in lieu of filing the documentation of these procedures with the commission, provide them to the staff, OPC, and to other parties as part of the workpapers it provides in connection with its direct case filing. If the electric utility submits the results in workpapers, it will provide a statement in its testimony as to where the results can be found in workpapers;

<sup>&</sup>lt;sup>11</sup> This table is marked **Highly Confidential** so results will not be discussed in this testimony.

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1		unit, the date the test was performed, and a single net heat rate. None of the underlying data
2		or reports generated that were used to arrive at the final reported numbers were provided.
3		Those reports generated and heat rate curves allow for more analysis and conclusions to be
4		drawn by the reviewing parties. The single number heat rate result filed by Liberty is
5		inadequate and, further, not all the heat rate test results in Schedule LP-8-Final HC meet the
6		timing requirements of the Commission's rule.
7	Q.	What is the timing required by Commission Rule 20 CSR 4240-20.090(2)(A)15 for the
8		heat rate tests?
9	A.	The rule states that the Company needs to file the heat rate or efficiency test for each facility
10		conducted within the previous twenty-four months.
11	Q.	Did Liberty meet this requirement?
12	A.	No, it did not. The Company's direct testimony in this case was initially filed on November
13		6, 2024. Counting back 24 months would require all heat rate tests to have been performed on
14		or after November 6, 2022, and before filing its initial testimony.
15		Three of the twelve generating plants shown on Schedule LP-8-Final HC were outside
16		of the 24 months prior to the filing of the direct case. The following plants' heat rate tests at
17		the time of direct filing had not been conducted in the 24 months prior to the Company's
18		initial direct filing: Iatan 1, Iatan 2, and Plum Point.
19	Q.	Did the Company seek a waiver in this case from the requirements of 20 CSR 4240-
20		20.090(2)(A)15 for the timing provision of the heat rate testing?
21	A.	No.

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#### Q. Do you have a recommendation to the Commission with regard to the heat rate testing 1 2 results Liberty provided in this case in its direct filing? 3 A. While Public Counsel has done a limited analysis on the heat rate test results provided by 4 Liberty, more time and analysis is needed to determine if these results are adequate for 5 baseline heat rate tests. I recommend the parties work together to develop heat rate baselines 6 to be used for Liberty. 7 In addition, I recommend that the Commission order Liberty to provide heat rate testing

reports for each of its generating units with the direct filing of its next general rate increase. The report for each of the generating facilities should provide the heat rate curves and data used to derive the curves along with documentation on the heat rate testing process used. Liberty should include information on the testing procedures for each generating unit/facility location as the testing procedures may vary by location and unit. In addition, the reports should also provide any changes to procedures that may have occurred and the reasoning for making such changes.

Non-AMI Meters

# Q. Do you have concerns related to Liberty's plant-in-service and accumulated depreciations reserves for account 370 Meters?

17 A. I noticed just before the filing of this testimony that the accumulated depreciation reserves
18 for this account are negative which indicates that Liberty has retired more plant that it had
19 accumulated depreciation reserves.

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#### Q. Can you give the Commission an idea of the magnitude of your concern?

A. Yes. Liberty's response to Staff data request number 0016 is the plant-in-service and
accumulated depreciation reserves as of September 30, 2024. Account 370 Meters (nonAMI as AMI meters are booked in account 370.1 Meters-AMI) had a plant-in-service value
of \$10,506,056 for total Liberty and a Missouri Jurisdictional value of \$8,805,540. The

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accumulated depreciation reserves were negative \$11,195,207 for Total Liberty and negative \$9,630,813 for Missouri Jurisdictional. To recover the original cost plant-inservice value based on September 30, 2024, numbers Liberty would need to collect \$21,701,263 for Total Liberty value and Missouri Jurisdictional value of \$18,436353 over the remaining life of the assets.<sup>12</sup>

#### Q. How should the Commission deal with this issue?

A. I do not know at this time. I will need to perform additional discovery related to the meters account and Liberty's replacement plan to gain a better understanding of why the account has gone negative and Liberty's current plans for the remaining plant-in-service.

10 Isolated Adjustments

# Q. Should the Commission include isolated adjustments through January 2, 2026, for accumulated depreciation?

# A. Yes. The Commission should make an isolated adjustment to account for the accumulated depreciation expense that will accrue for Liberty between September 30, 2024, and January 2, 2026. This adjustment will increase the accumulated depreciation reserves of Liberty and will ultimately reduce rate base and, in turn, lower the amount of authorized return on investment included in rates for Liberty's existing plant-in-service.

18 Q. Hasn't Public Counsel opposed isolated adjustments in the past?

A. Yes. However, the Commission has been granting parties the opportunity to propose isolated
adjustments in many of the recent cases. Accumulated depreciation reserve is one of the few
isolated adjustments that would be beneficial to rate payers as it reduces the rate base of the
utility, which in turn reduces the return on the investment that the utility receives from its

<sup>&</sup>lt;sup>12</sup> These values do not take into account the net salvage related to the meter accounts.

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ratepavers and reduces the revenue requirement. Given the Commission's willingness to allow utilities to propose the inclusion of plant additions beyond the true-up periods as isolated adjustments, the Commission should also consider the accumulated depreciation expense over that same period to better balance the interests of ratepayers and shareholders.

#### Q. Have you calculated the amount for isolated adjustments for accumulated depreciation expense?

7 A. I have undertaken to calculate what the accumulated depreciation reserve for Liberty would 8 be as of the operation of law date for this case—January 2, 2026. Specifically, I have 9 calculated an accumulated depreciation reserve balance of \$1,423,602,659 for Liberty on a 10 total company basis. This represents an additional \$185,775,070 in depreciation reserves for 11 Liberty total company if adjusted to extend to January 2, 2026. My calculations of these values are attached as Schedule JAR-D-9 The increase in depreciation reserve will reflect a reduction 12 13 in revenue requirement of \$14,397,568. On a Missouri Jurisdictional level the accumulated 14 depreciation reserve balance would be \$1,238,971,966 which is an increase in depreciation 15 reserve from September 30, 2024, of \$131,370,067 when adjusted to January 2, 2026. The 16 increase in depreciation reserve on the Missouri Jurisdictional basis would reflect a revenue 17 requirement reduction of \$11,017,705. The Missouri Jurisdictional calculations are Attached 18 as well in Schedule JAR-D-9.

#### 19 Q.

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#### Please summarize your recommendation for isolated adjustments.

A. The Commission should update accumulated depreciation reserves through the date of effective rates increasing depreciation reserve by \$185,775,070 for total company or by \$131,370,067 for the Missouri Jurisdictional value.

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Conclusion 2 Q. Please summarize all your recommendations. 3 A. I recommend the Commission order the following: 4 The depreciation rates for generation facilities that I have calculated and attached in 5 Schedule JAR-D-3. 6 A 5-year amortization of the remaining balance of unrecovered plant-in-service with 7 an additional amount for return on the investment prior to the retirement of Riverton units 10 8 and 11 in 2026 once the disallowance for repair costs for Riverton unit 10 are removed with an annual value of \$3,790,017.<sup>13</sup> This should be coupled with the removal of Riverton units 9 10 10 and 11 from rate base and rate base treatment, meaning the stopping of depreciation expense on Riverton units 10 and 11. 12 That the Commission deny recovery for the repair costs of Riverton Unit 10 based on 13 imprudent actions and Liberty's failure to abide by the Stipulation and Agreement in Case 14 Number EA-2023-0131. 15 That the Commission order Liberty to provide heat rate testing reports for each of its 16 generating units as part of its direct filing in its next general rate case. The report for each of 17

the generating facilities should provide the heat rate curves and data used to derive the curves along with documentation on the heat rate testing process used. Liberty should include information on the testing procedures each generating unit/facility location as the testing procedures may vary by location and unit. In addition, the reports should also provide any changes to procedures that may have occurred and the reasoning for making such changes.

<sup>&</sup>lt;sup>13</sup> This is the 5-year amortization value based on projected reserve balance of December 31, 2025 and does not include the removal of Riverton unit 10 repair costs.

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• That the Commission increase Liberty's depreciation reserve by \$185,775,070 on the total company basis or \$131,370,067 for the Missouri Jurisdictional increase through January 2, 2026, the anticipated effective date of new general rates.

#### 4 Q. Does this conclude your direct testimony?

5 A. Yes, it does.

#### BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

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In the Matter of the Request of The Empire District Electric Company d/b/a Liberty for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in Its Missouri Service Area

Case No. ER-2024-0261

#### **AFFIDAVIT OF JOHN A. ROBINETT**

#### STATE OF MISSOURI ) ) ss COUNTY OF COLE )

John A. Robinett, of lawful age and being first duly sworn, deposes and states:

1. My name is John A. Robinett. I am a Utility Engineering Specialist for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my direct testimony.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

John A. Robinett Utility Engineering Specialist

Subscribed and sworn to me this 1<sup>st</sup> day of July 2025.

TIFFANY HILDEBRAND NOTARY PUBLIC - NOTARY SEAL STATE OF MISSOURI MY COMMISSION EXPIRES AUGUST 8, 2027 COLE COUNTY COMMISSION #15637121

duck

Tiffany Hildebrand Notary Public

My Commission expires August 8, 2027.