Exhibit No. 225

OPC – Exhibit 225
Testimony of Jordan Seaver
Rebuttal
File No. ER-2024-0261

Exhibit No.: _____
Issue(s): Reliability/Customer Experience
Witness/Type of Exhibit: Seaver/Rebuttal
Sponsoring Party: Public Counsel
Case No.: ER-2024-0261

REBUTTAL TESTIMONY

OF

JORDAN SEAVER

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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August 18, 2025

PUBLIC

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REBUTTAL TESTIMONY
OF
JORDAN SEAVER

Empire District Electric Company d/b/a Liberty

CASE No. ER-2024-0261

I. INTRODUCTION

Q. What is your name and what is your business address?

A. My name is Jordan Seaver, and my business address is 200 Madison Street, Governor Office Building, Suite 650, Jefferson City, MO 65102.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of this testimony is to respond to Liberty-Empire witness Jeffrey Westfall's direct testimony regarding the reliability metrics , SAIDI, SAIFI, and CAIDI scores, and distribution and transmission expenses. "SAIDI" stands for System Average Interruption Duration Index. "SAIFI" stands for System Average Interruption Frequency Index. "CAIDI" stands for Customer Average Interruption Duration Index. I also propose a disallowance from Empire's rate base of 2% of Liberty's investments in distribution and transmission projects since its last rate case which exceed $1 million in recognition of Empire's frequent outages and voltage problems, the issues with and stemming from its Customer First program, and their impacts on retaining and building load not being overcome by Empire's distribution and transmission project investments (see pages 17-18 of this testimony).

II. RELIABILITY

Q. What does Empire witness Jeffery Westfall say about Empire's SAIDI, SAIFI, and CAIDI scores for the period of 2021 to 2023?

A. Empire's witness Mr. Westfall lists the SAIDI, SAIFI, and CAIDI scores for the years 2021, 2022, and 2023. I have included the graph below for reference:

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Missouri Reliability Metrics – Excluding Major Events			
Year	**SAIDI**	**SAIFI**	**CAIDI**
2021	141.92	1.231	115.27
2022	93.63	0.943	99.3
2023	120.62	1.054	114.45

Q. What do these scores represent?

A. These scores represent the following:

SAIDI: the system average interruption duration index shows the average duration, measured in minutes, of interruption of electric service by number of customers. So, this is an attempt to show how common it is for customers to experience interruptions of service (not momentary interruptions). The time period for the averaged values is one year.

SAIFI: the system average interruption frequency index shows the frequency of service interruptions, measured in minutes (so, not momentary interruptions), averaged over the total customer population. The time period for the averaged values is one year.

CAIDI: the customer average interruption duration index attempts to depict the time needed for restoring power after an interruption, measured in minutes (so, again, not momentary interruptions). This is done by dividing the sum of all interruption durations (in minutes) by the total number of interruptions. The time period for the individual durations and the total number of interruptions is one year.

The way each score is calculated means that having a higher score in either category is, to put it simply, not desirable. An increased SAIDI score indicates

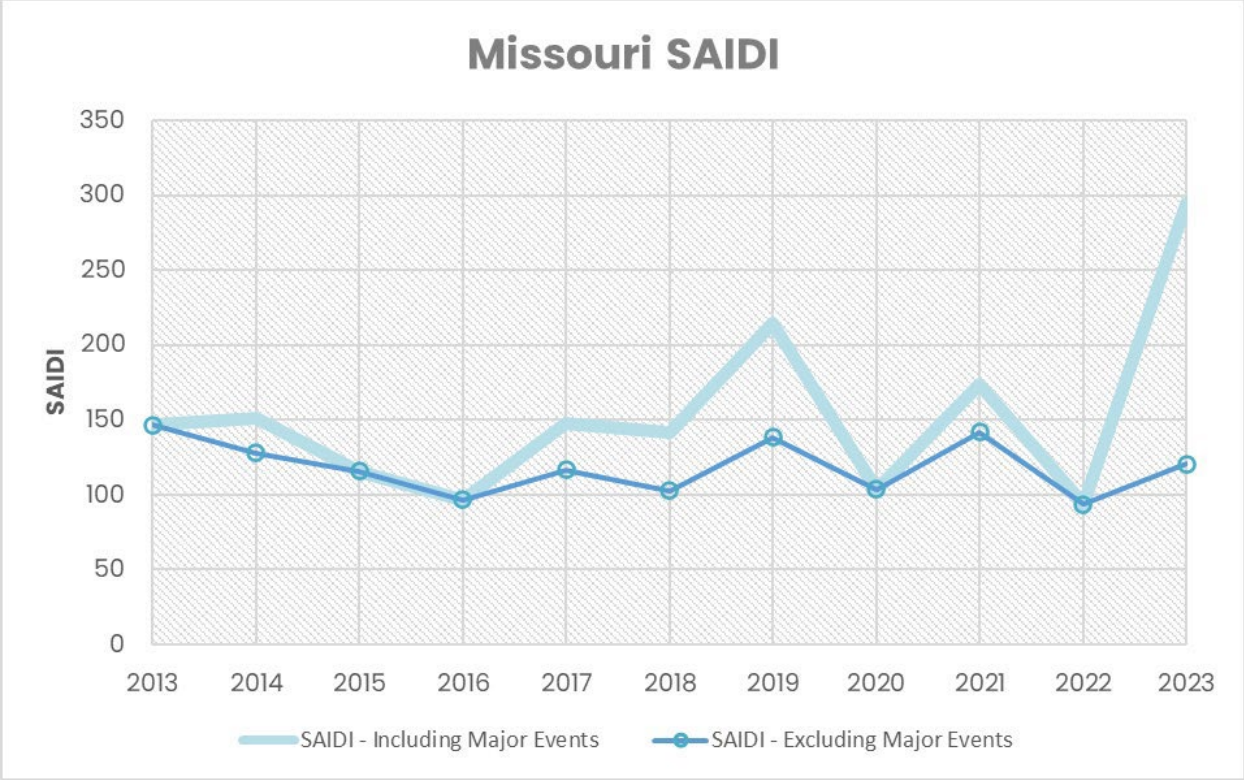
an increase in the duration of outages, while an increase in SAIFI score indicates an increase in the frequency of outages for the customer base. An increase in CAIDI score indicates an increase in the average amount of time it took to restore power during interruptions of service.

Q. What do you glean from these scores?

A. For the SAIDI and SAIFI reliability metrics, the scores for 2023 are lower than in 2021, but have increased from where they were in 2022. There is a slight downward trend in all scores for the period of 2021-2023. The CAIDI score for 2023 is almost the same as the score for 2021, and is much higher than the score for 2022.

Q. Did Empire look at its reliability metrics trends?

A. Yes. Mr. Westfall also includes three graphs showing the SAIDI, SAIFI, and CAIDI scores (both including and excluding major events) from 2013 to 2023. These are included below:



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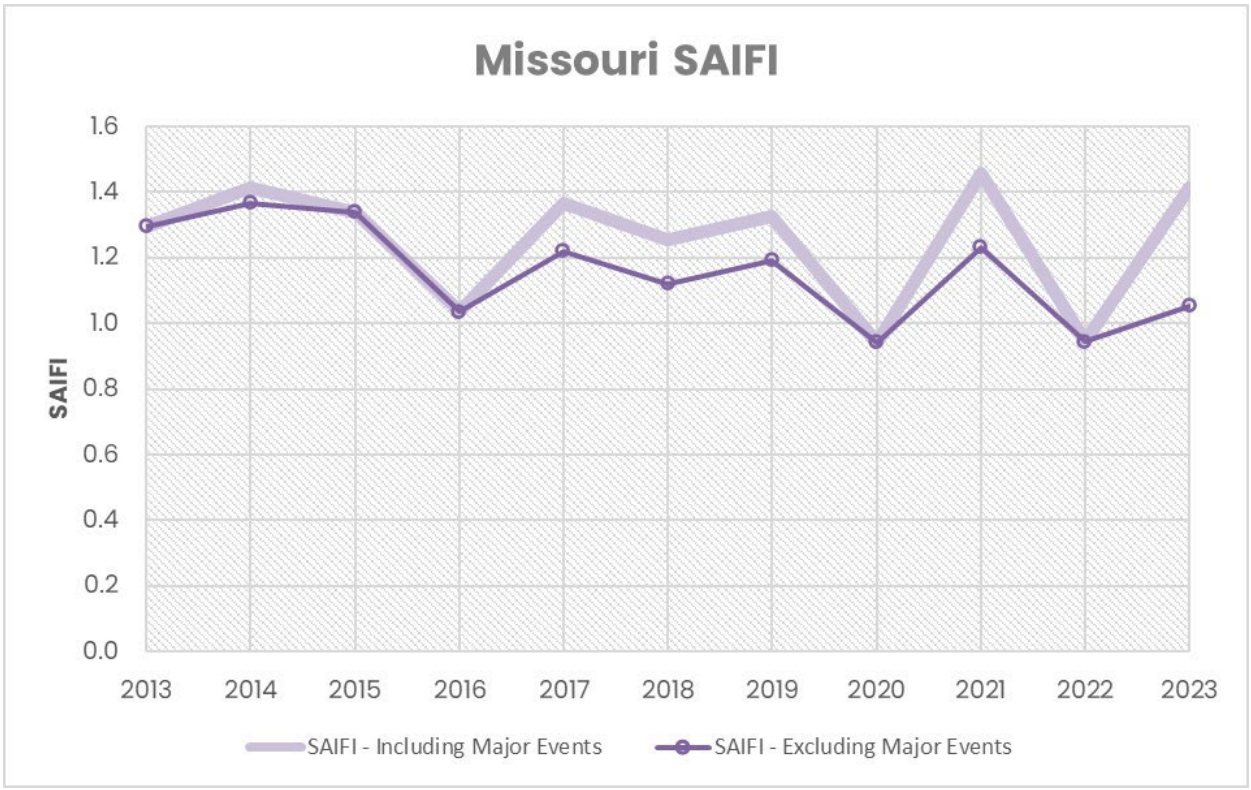
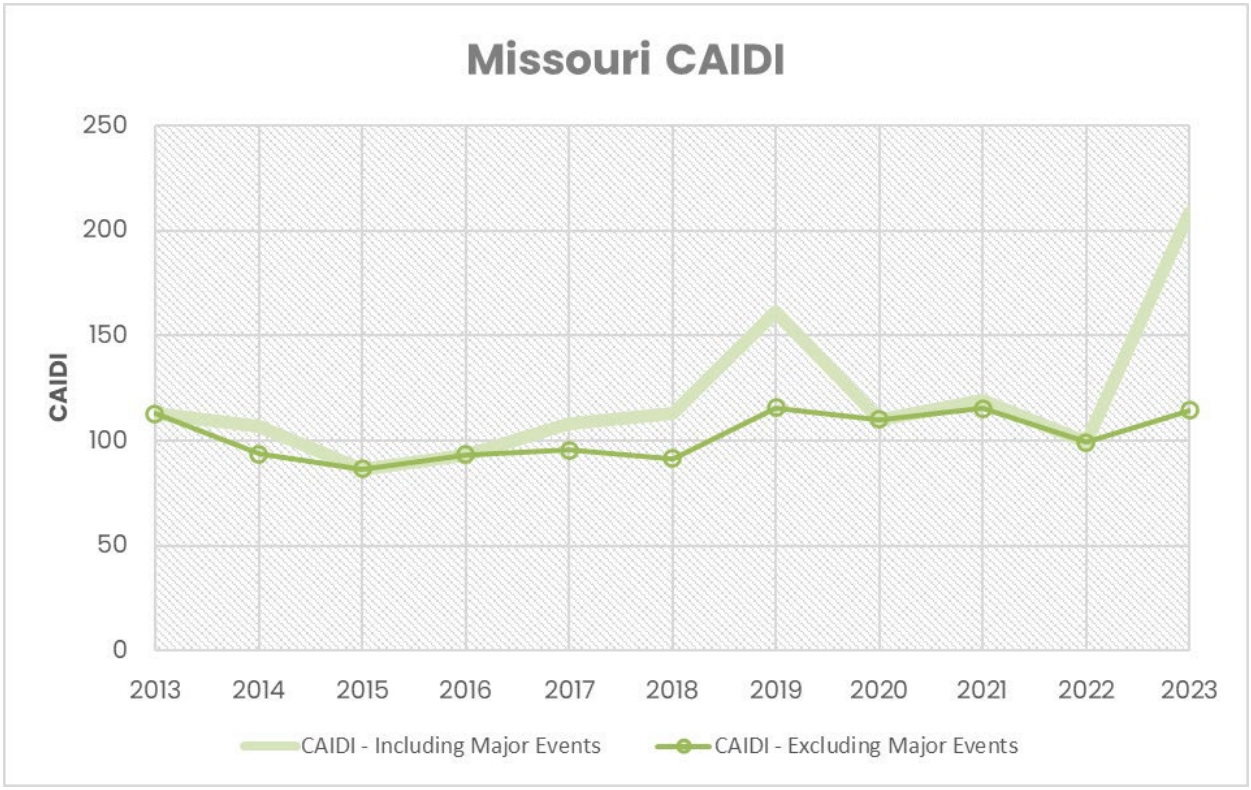

Missouri SAIFI
SAIFI
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
SAIFI - Including Major Events
SAIFI - Excluding Major Events


Missouri CAIDI
CAIDI
250
200
150
100
50
0
2013
2014
2015
2016
2017
2018
2019
2020
2021
2022
2023
CAIDI - Including Major Events
CAIDI - Excluding Major Events

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Q. What do you glean from these graphs?

A. The trend line for the SAIDI and SAIFI metrics changes only slightly or does not change at all when the time period is extended. We can see that the scores for 2023 are lower than they were in 2013, but not by very much. The CAIDI score appears to have returned to the same score that was recorded in 2013. Over the last decade the SAIDI and SAIFI scores have seen a very slight decrease, and the CAIDI score has remained roughly the same, with an apparent slight increase. But in the test year and since 2020, there have been increases in the scores and an apparent trend of increasing scores. This does not suggest a significant increase of service reliability over these time periods.

Q. Has Empire performed routine annual maintenance or nonroutine unique repairs on its electricity delivery system components during the test year?

A. Yes, the Company performed much routine annual maintenance and many nonroutine unique repairs on both the distribution and transmission systems during the test year. This investment amounts to ****_____**** for all completed reliability maintenance and repairs above $1 million. Some of this work was completed in 2022, and some in 2023.

Q. Does Mr. Westfall's analysis and reporting show that these maintenance and repair projects have impacted Empire's reliability?

A. No, Mr. Westfall's analysis does not show this. As can be seen above, Empire's reliability scores all decreased from 2021 to 2022, and then they all increased from 2022 to 2023. This decrease during the test year could be attributable to the maintenance and repairs completed during 2020 and 2021. However, the increase in scores from 2022 to 2023 presumably should not have happened given the significant expenses for transmission and distribution projects during those years and in the prior two years.

Q. Would the reliability metric scores have been worse if the investments were not made?

A. I do not know if that is the case or not. There are too many variables at play to answer that question without, at the very least, a significant cost-benefit analysis study that shows that these investments have been worth the cost. Additionally, I would need to see a study showing that some other factor has been the obvious most likely cause of the non-responsiveness of the reliability metrics. The cost-benefit analysis study is required in the PISA statute to justify capital expenditures and Empire has not provided one to OPC. See OPC witness Geoff Marke's rebuttal testimony for a more detailed discussion of this issue.

Q. How do the cumulative totals for Empire's maintenance and repairs performed in 2022 and 2023 compare to the cumulative totals for Empire's maintenance and repairs performed in years 2016 to mid-2021?

A. In Case No. ER-2019-0374 the schedule JW-1 provided by Company witness Jeffery Westfall gives a total of $118,065,462.06 for transmission and distribution reliability projects above $1 million performed from April 1, 2016, through January 31, 2020. In Case No. ER-2021-0312 the schedule JW-1 showing expenses for reliability projects performed from January 31, 2020, and June 30, 2021, gives a total of $218,484,473. This is a total of $336,549,935.06 for reliability projects above $1 million performed from early 2016 to mid-2021.

Q. What is Empire's Operation Toughen-Up program?

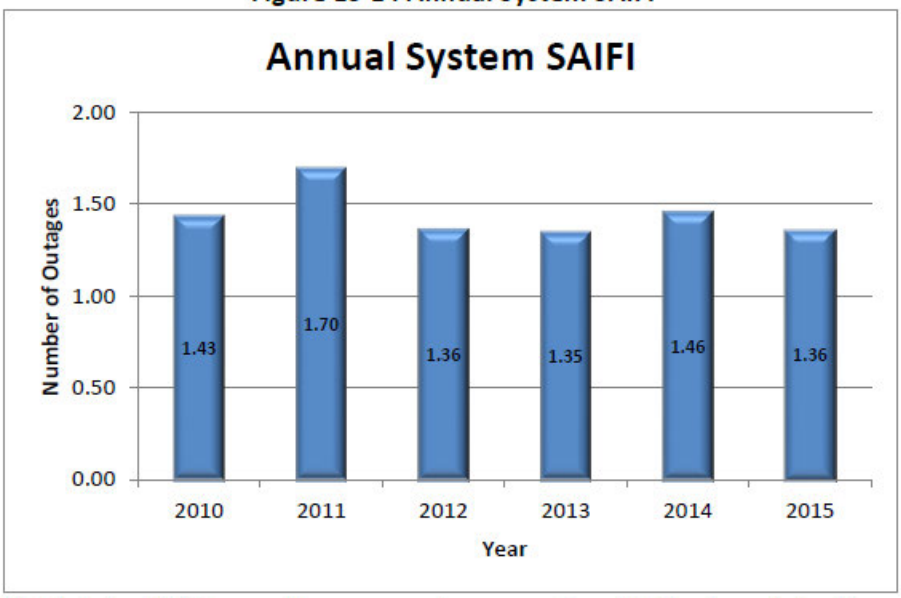
A. In its 2016 Triennial IRP Executive Summary Empire states that the purpose of Operation Toughen-Up is "to strengthen the transmission and distribution delivery system," in particular "by reducing the number of outages and

shortening outage duration. Empire's goal is to achieve a SAIFI of no greater than 1.00 and a SAIDI of no more than 100."[1]

Q. Did Empire provide SAIFI and SAIDI scores to support the need for Operation Toughen-Up?

A. Yes, Empire provided SAIFI and SAIDI scores that they believed showed a need for improved reliability via increased distribution investment. Empire provided SAIFI and SAIDI scores from 2010 to 2015 in its IRP filing. The highest SAIFI number was from 2011 at 1.70, and the highest SAIDI number was also from 2011 at 240. These scores were considered bad enough to be in need of significant investment in distribution upgrades, and the recent scores are not significantly lower than those in the period shown below, and they are definitely not anywhere near the goal of Empire in initiating Operation Toughen-Up. Below are the graphs provided by Empire in the 2016 IRP:

Figure ES-14 Annual System SAIFI



SAIFI: An index of 1.36 means the average customer experienced 1.36 outages during the year.

[1] Case No. EO-2016-0223, Volume 1, Integrated Resource Plan (IRP) Executive Summary, pg. 28.

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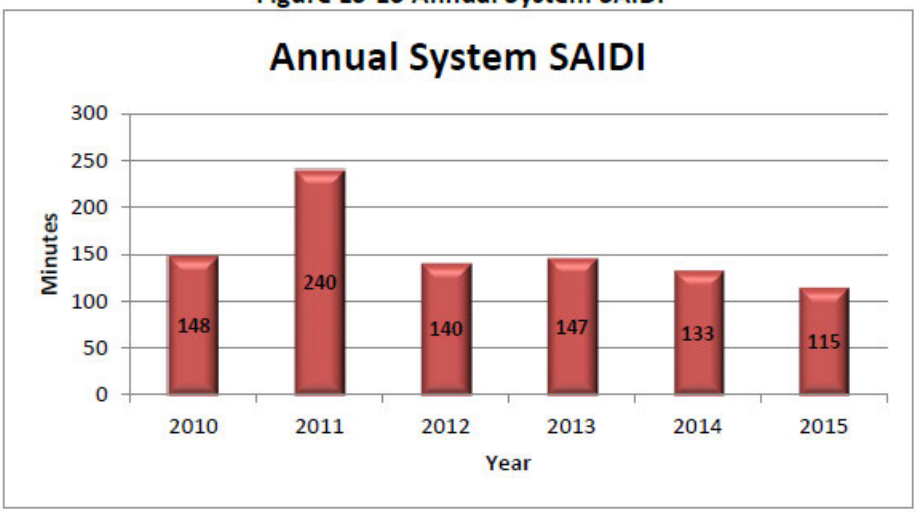
Figure ES-15 Annual System SAIDI



SAIDI: An index of 115 means the average customer experienced a total of 115 outage minutes during the year.

Q. What do you conclude about the reliability metric scores Empire relied on to justify "Operation Toughen-Up" and the scores it now has for supporting the realized benefits of Operation Toughen-Up?

A. Comparing these IRP graphs to those above from Mr. Westfall's direct testimony in this case, the SAIFI and SAIDI scores are both as of 2023 still above 1.00 and 100, respectively. As I stated above, the trend line is unclear, and it appears that the scores are hovering around the same general area. However, the most recent reliability report from Empire (Case No. EO-2025-0300) shows that its SAIFI score has increased again. It was at 1.21 in 2024, the SAIDI score was 144 in 2024, and the CAIDI score was 116.62 in 2024 (all are excluding major event days).

Q. What was Empire's original budgeted expense for Operation Toughen-Up?

A. In Empire's 2016 Triennial IRP filing, Volume 1, Executive Summary, the total budget for the project is $100 million.

Q. Has Empire completed its Operation Toughen-Up?

A. Operation Toughen-Up is not yet completed and does not have a hard end date, but the project is coming to a close (see Mr. Westfall's direct testimony, page 6).

Q. Will Empire's planned major investments to improve its existing transmission and distribution systems end with Operation Toughen-Up for the near term?

A. No, at least not for its distribution system. In his direct testimony, Company witness Dmitry Balashov states that the Company has decided to pursue a plan named Project Distribution Automation ("Project DA") that will install "smart" and automated devices on Empire's distribution line and station infrastructure. Project DA is being funded in part by federal funds awarded by the GRIP grant that was awarded totaling $47.5 million. Empire has estimated that the total cost of Project DA will be around $95 million.

Q. Are the transmission and distribution projects that Mr. Westfall discusses in his direct testimony included in Empire's 2023 or 2024 PISA capital expenditures?

A. Yes, all of the projects included in Mr. Westfall's schedule JW-1 CONF and JW-1 have been included in PISA capital expenditures for 2023. A handful have only been included for 2022 and 2023 PISA years, but most have been included for 2022-2024 PISA years. In my schedule JS-R-1 I have included the PISA investments for each project listed in Mr. Westfall's JW-1-CONF and JW-1. Each PISA investment is listed by year and is indicated as positive or negative. The PISA investment total is given for each project. The total PISA investment for 2022-2024 for these projects is given, as well as the total PISA investment for 2023-2024 for these projects.

Q. What has Empire said about the purpose of these transmission and distribution capital expenditures?

A. In the Company's 2022 Annual PISA Update Report, it states that the "report reflects Liberty-Empire's current intentions regarding budget plans for the next five years to continue progress of Liberty-Empire's Clean Transition Plan (the "CTP"). The CTP will enable Liberty-Empire's electric grid to meet evolving customer needs today and in the future through cost management, modern technologies, and a transition to clean energy."[2]

Again, in its 2023 PISA update, the company emphasizes that "The CTP is centered around grid modernization investments that optimize operations, automate and improve the flexibility of the grid, facilitate integration of distributed renewable generation, improve power quality, and increase the use of digital information, the security and safety of the grid, and the grid's resiliency to withstand threats from vegetation and damaging winds and other extreme weather events."[3]

And again, in its 2024 PISA update, the Company states that "The CTP addresses electric infrastructure for Liberty's entire Central Region, not just for the state of Missouri."[4] In the same report the CTP is said to "enable Liberty's electric grid to meet evolving customer needs today and in the future through cost management, modern technologies, and a transition to clean energy. (Emphasis added)."[5] It is clear from this 2024 PISA report that the transition to clean energy requires planning for Liberty's entire central region footprint, and not just for Missouri. This is because the plan, as I covered in my direct

[2] Liberty 2022 PISA Annual Report – an Update on the Company's Clean Transition Plan, Case No. EO-2019-0046, p 1.
[3] Liberty 2023 PISA Annual Report – Update on the Company's Clean Transition Plan, Case No. EO-2019-0046, p 7.
[4] Liberty 2024 PISA Annual Report – Update on the Company's Clean Transition Plan, Case No. EO-2019-0046, p 6.
[5] *Ibid.*, p 3.

testimony, is not specific to Missouri, but is instead a plan for Liberty as a whole, driven by concerns and interests that do not originate with specific considerations for Missouri customers. Conspicuously missing from the 2025 Annual PISA Update Report is any mention of the Clean Transition Plan, yet most of the transmission and distribution projects elected for PISA treatment are included in the 2024 and 2023 reports (so, in the 2023 and 2022 years, respectively) as part of the Clean Transition Plan. I, therefore, assume that their purpose is, if a part of that plan, then at the very least related to it.

Q. Are you suggesting that all of the projects Mr. Westfall includes in his schedule JW-1 CONF are for the purpose of transitioning to renewable generation?

A. No, because some of the projects are clearly described as replacement of aging infrastructure, or as projects to increase reliability and/or safety. Some of the projects are replacements of very old transmission lines or substation parts and these are prudently included for replacement or upgrades. What I am saying is that the transition to renewable generation requires a corresponding change in the transmission and distribution systems to increase the available transmission for energy from typically faraway solar and wind facilities, to reduce curtailments of solar and wind facilities, to account for changes in voltage stability, inverters needed to convert the DC power generated by solar facilities into AC power that is on the grid, etc. In addition to the transition to renewable generation, the Company also believes that another crucial part of the CTP is the electrification of transportation in Missouri.[6] The electrification of transportation is widely considered[7] to require, of necessity, large distribution

[6] See, e.g., the 2022 PISA report, pp 11-12, the 2023 PISA report pp 11-12, and the 2024 PISA report p 10.

[7] See Jonathan A. Lesser, "Infrastructure Requirements for the Mass Adoption of Electric Vehicles", National Center for Energy Analytics, p 1 and throughout (Attached as Schedule JS-R-2); See Larson, Greig, et al., "Net-Zero America: Potential Pathways, Infrastructure, and Impacts", Princeton, p 66, found at https://netzeroamerica.princeton.edu; See Michael Hartnack and Jesse Hitchcock, "Transportation electrification and EVs: Who pays for grid upgrads?", Utility Dive,

buildout and upgrades to actually occur. So, in short, much of the already large investment in these projects is a part of the push to transition to mostly renewable generation and the electrification of transportation.

In addition to these publicly stated reasons for the large distribution and transmission investments, there is the tendency among utilities to "goldplate" their infrastructure due to the return on investment that investor owned utilities are authorized to earn on investments. Empire has made a commitment to its CTP and following through with this plan allows them to make large investments in their distribution and transmission systems that offers large returns as a result. The cost benefit analysis procedure detailed by Mr. Balashov has not been put into practice and there have been no studies using it that have been presented to OPC as support for distribution and transmission investment.

III. CUSTOMER EXPERIENCE

Q. Do you know of any actual customer experience that is contrary to the picture Mr. Westfall paints in his direct testimony about the reliability of Empire's electrical service for its customers?

A. Yes. I have spoken with Mr. Randall Barker, a residential customer who has filed a comment in this case, who has spoken at a local public hearing, and who has experienced many outages and voltage issues. He has many neighbors who have experienced the same issues, and the problems appear to extend to at least a 5-mile radius of his house, if not further. If he could, he would switch electric service providers, but because of the nature of investor owned utilities, he cannot.

January 11, 2023, https://www.utilitydive.com/news/transportation-electrification-and-evs-who-pays-for-grid-upgrades/639420/; See also Lou Blouin, "We're not ready for the electrification era", University of Michigan-Dearborn News, March 8, 2023, https://umdearborn.edu/news/were-not-ready-electrification-era. This list is not exhaustive but should be representative.

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Many customer comments in this case describe their experience with this exact same set of issues. Examples are listed below:

P202501097: "I would like to say that I oppose the requested rate increase due to poor electric service and outages."

P202500938: "As there are no other options for utility providers other than Liberty, customers cannot shop around for the best service for their budget and are forced to accept any rate increase approved."

P202501734: "Why is the customer expected pay for Liberty's cost of doing business? Specifically, why does the customer absorb their bad business decisions and mistakes by paying higher rates in order for them to keep their high profits?"

P202501828: "If we had any options for another electrical carrier we would. Their service is unreliable"

P202501832: "No only have my rates more than doubled in the almost 10 years in this house but their reliability of service is not good. The power surges and flashes have damaged more than one of my appliances."

P202501840: "People are forced to have Liberty as their provider and Liberty is completely taking advantage of that lack of choice, charging 65% more than the power company in town that I cannot choose and now they have the audacity to ask for a rate increase."

P202501853: "As a consumer, I'm tired of the price gouging for unreliable service they provide."

P202501860: "…if they had competition in the marketplace then maybe they would find ways to decrease cost rather than increasing costs."

P202501873: "Liberty wants rate hikes to make improvements, but we never see rate reduction from these improvements. Solar and wind farms do nothing for the consumers. Liberty requests rate hikes knowing they will never be denied."

P202501906: "My all-electric house would see an increase of over $100…We cannot shop around for Electric like a phone."

P202501921: "We are gone more than we're here. We turn everything off. We have one light we use, but our bill goes up. Why why [*sic*] do we not have a choice other than Liberty?"

P202501939: "We paid so much less when we live within a co-op."

P202501942: "They have brown outs that destroy your appliances, and they call it an act of God?"

P202501944: "This is an absurd request. 30 percent should be denied considering the poor service and performance."

P202501985: "SW electric nearby charges half of what Liberty charges. Liberty service is horrible, the billing is terrible."

This is only a small sampling of the 600+ comments filed in EFIS that address the poor service and reliability of Empire, and that address customers' desire to change service providers. The Company appears to have outage issues and voltage stability issues across its service territory. The customer with whom I have spoken has contacted customer service each time he has had an outage, and has received varying responses. For the first handful of outages he experienced, the Company responded quickly with trucks showing up to check on the problem, but they said that nothing was out of the ordinary on their system. After many outages and calls, the Company told the customer that the problem was somewhere at his house, but he has found nothing to show this, and his neighbors

have also found no issues with their houses yet are experiencing the same outages.

It appears that there are widespread intermittent outages and voltage stability problems throughout the Company's service territory, and it is doing little to nothing to solve these problems, all the while making large capital expenditures every year on the transmission and distribution systems with the goal of improving reliability and facilitating the transition to renewable generation.

Q. What is the total transmission and distribution project investment that Empire is seeking to include in its rate base, and how does that total compare to its PISA eligible transmission and distribution investment in 2023 and 2024?

A. The total Empire is seeking, as listed above and presented in Mr. Westfall's direct testimony, is **_____ **. The total capital expenditure for transmission and distribution projects included in Mr. Westfall's testimony that are booked under plant in service accounting ("PISA") for the years of 2023 and 2024 is $218,028,167.

Q. Is Empire's PISA capital expenditure relevant for this case?

A. The PISA capital expenditure will become eligible for inclusion in rates for this case on 8/28/2025, which is 10 calendar days after the filing of this testimony.

Q. Given the cost-benefit analysis presented in Company witness Dmitry Balashov's direct testimony, do you believe that the distribution and transmission projects Empire has completed since its last general electric rate case have not benefitted Empire's electric customers?

A. No, I do not believe that the projects completed to upgrade or to replace parts of the distribution and transmission systems have been unwarranted or bad across the board. The cost-benefit analysis discussed by Mr. Balashov is a sensible and

very clear and structured procedure for determining what to replace or upgrade. However, Mr. Balashov is no longer employed with Liberty Utilities. Thus, we do not know where Empire stands with respect to implementing this cost-benefit analysis procedure or who will oversee it after implementation.

I do believe that, given the frequent outages and voltage problems for many customers, the issues with and stemming from the Customer First program, and the failure to greatly decrease the SAIDI, SAIFI, and CAIDI scores (shown above), the cost to customers for these upgrades and replacements is not worth the benefit they added. The bills of customers are not going down, and especially will not if the Company's rate increase is ordered by the Commission, and the service is not markedly better—in fact it is in many ways worsening, yet the Company has made significant capital expenditures with the stated goal of improving service and reliability and of pursuing an aggressive transition to renewable generation. These costs should not be born fully by customers given that they have no choice in their electricity provider. This sort of management decisions leading to such an increase in cost and such a deleterious impact on customer experience would, in a public company, lead to large customer migration and potentially to a slower rate of new customers than before, depending on larger public perception. Additionally, a price increase (analogous to a rate increase) would be expected only if the value of a product or the company as a whole went up. Neither of these latter circumstances is the case with Empire.

Q. What do you propose?

A. I believe that a disallowance of 2% of the rate base inclusion of transmission and distribution projects over $1 million since the last rate case is warranted. This would represent the large and growing customer discontent that would, in a competitive market, lead to significant loss of customers and a potentially

slowing rate of new customers[8]. These distribution and transmission projects, which I do not oppose as long as they improve the electric service to customers, have been costly and have been primarily driven by a desire to transition Liberty's total, Missouri and non-Missouri generation fleet to a supermajority renewables. Assuming all projects in Mr. Westfall's schedule JW-1 CONF are included in rate base for this rate case, the recommended 2% disallowance would amount to a **_____ ** reduction in Empire's rate base.

Q. Do you have any further rebuttal testimony?

A. No.

[8] A 2018 report from PricewaterhouseCoopers showed that 17% of US customers surveyed would "stop interacting with a brand they love" after just one bad experience, and that 59% would walk away after several bad experiences. If those percentages hold for the customer base of an individual business, then my 2% disallowance to reflect revenue loss is very conservative. See "Experience is everything: Here's how to get it right", 2018, PricewaterhouseCoopers, pp. 8-9, https://www.pwc.com/us/en/advisory-services/publications/consumer-intelligence-series/pwc-consumer-intelligence-series-customer-experience.pdf#page=9.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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 JORDAN SEAVER

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Jordan Seaver, of lawful age and being first duly sworn, deposes and states:

1. My name is Jordan Seaver. I am a Policy Analyst for the Office of the Public Counsel.

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

Jordan Seaver
Policy Analyst

Subscribed and sworn to me this 14th day of August 2025.

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

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2027.