Exhibit No.:

Issue: Reliability
Witness: Bruce Akin

Type of Exhibit: Surrebuttal Testimony

Sponsoring Party: Evergy Missouri Metro and Evergy Missouri

West

Case No.: ER-2022-0129 / 0130

Date Testimony Prepared: August 16, 2022

MISSOURI PUBLIC SERVICE COMMISSION

CASE NOS.: ER-2022-0129 / 0130

SURREBUTTAL TESTIMONY

OF

BRUCE AKIN

ON BEHALF OF

EVERGY MISSOURI METRO and EVERGY MISSOURI WEST

Kansas City, Missouri August 2022

SURREBUTTAL TESTIMONY

OF

BRUCE AKIN

Case No. ER-2022-0129 / 0130

1	Q:	Please state your name and business address.	
2	A:	My name is Bruce Akin. My business address is 818 S. Kansas Avenue, Topeka,	
3		Kansas.	
4	Q:	Are you the same Bruce Akin who previously submitted direct and rebuttal	
5		testimony in these dockets?	
6	A:	Yes.	
7	Q:	On whose behalf are you testifying?	
8	A:	I am testifying on behalf of Evergy Metro, Inc. d/b/a Evergy Missouri Metro	
9		("Evergy Missouri Metro" or "EMM") and Evergy Missouri West, Inc. d/b/a	
10		Evergy Missouri West ("Evergy Missouri West" or "EMW") (collectively, the	
11		"Company" or "Evergy").	
12	Q:	What is the purpose of your surrebuttal testimony?	
13	A:	The purpose of my surrebuttal testimony is to respond to the Rebuttal Testimony	
14		of Missouri Public Service Commission Staff ("Staff") witness Claire Eubanks	
15		regarding System Reliability and the quantification of benefits related to Evergy's	
16		grid modernization initiatives.	

1	Q:	Staff witness Claire Eubanks describes the utility metrics that are required to	
2		be reported by investor-owned electric utilities, the definitions of these indices,	
3		and her interpretation of Evergy's performance on pages 6- 10 of her rebuttal	
4		testimony. Do you agree with her interpretation of the metric definitions?	
5	A:	In general, yes. However, her statement on line 3, page 8 that "[i]mproved response	
6		to outages is the most direct way to improve SAIDI" does not accurately represent	
7		all the variables that affect System Average Interruption Duration Index ("SAIDI").	
8	Q:	What other factors affect SAIDI?	
9	A:	In addition to response time to outages, System Average Interruption Frequency	
10		Index ("SAIFI") - the frequency of outages experienced over a given time period -	
11		will affect SAIDI. SAIDI is calculated by summing the total duration of customer	
12		minutes interrupted and dividing that sum by the total number of customers served	
13		on the system. When the total number of outages experienced increases over a	
14		given period of time, the total duration also naturally increases when assuming that	
15		the average time to restore an individual outage remains relatively unchanged.	
16	Q:	Does this mean that the total number of outages not only affects the SAIFI	
17		metric, but it also affects the SAIDI metric?	
18	A:	Correct, both SAIFI and Customer Average Interruption Duration Index ("CAIDI")	
19		metrics have an impact on SAIDI. In fact, SAIDI can be calculated by multiplying	
20		CAIDI and SAIFI.	

- 1 Q: Regarding reliability metrics, do you agree with Staff witness Eubanks that
 2 "These indices are affected by customer density, tree density, geography,
 3 observed weather, and other factors that may be beyond the control of the
 4 utilities"?
- Yes, I do. I would add that asset condition and age of the assets are also a factor inreliability metrics.
- 7 Q: Are there any specific outage drivers that have resulted in reliability metric performance trends?
 - A: Yes, we have seen a noticeable increase in weather volatility the past several years.

 At Evergy we have been reviewing wind gust data and have noticed a correlation between high winds and reliability performance. The below chart represents days with observed wind gusts greater than 40 mph in each of our Missouri jurisdictions.

Figure 1 – Historical Wind Gust Data
Wind Gusts > 40mph | EMM & EMW

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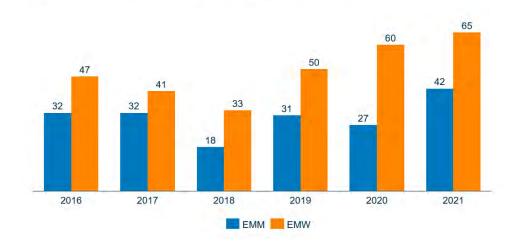
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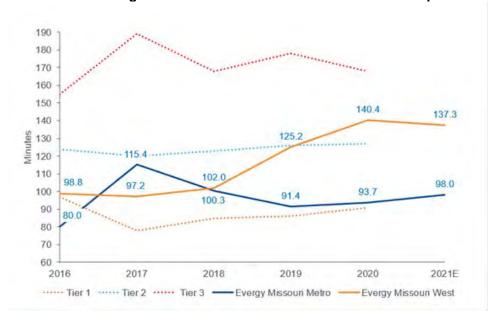


- 15 Q: How does this wind data compare to reliability metric performance?
- 16 A: When compared to yearly SAIDI metrics shown in Figure 2, we can see that as

 17 wind speeds have increased the past several years, reliability performance has also

been impacted. Coincidentally, we see that the low number of wind gust days in 2018 also matches our best reliability performance as a company.

Figure 2 – Historical IEEE Normalized SAIDI Comparison



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A:

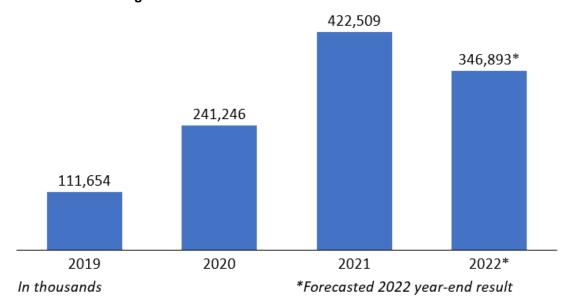
On page 8 of her testimony Ms. Eubanks states that the reliability metrics presented in your Direct Testimony are inconsistent with the reliability metrics reported to the Commission. Why are the numbers different?

As Ms. Eubanks footnoted in her Rebuttal Testimony, "Staff inquired about the discrepancy between the reliability metrics presented in Mr. Akin's Direct testimony as compared to the annual reporting in Data Request No. 0506 in ER-2022-0129 and Data Request No. 0499 in ER-2022-0130, both due on July 28, 2022." We have since responded to the referenced data requests as such: The source of the SAIDI metrics in Figure 1 on page 3 of my Direct Testimony are outage records from Evergy's Outage Management System. The variance from Figure 1 to the annual reliability reports in years 2016, 2017, and 2018 is due to changes in interpretations for reliability reporting prior to the merger in mid-2018.

1		The variance in 2020 is due to data issues from the Geographical Information	
2		System ("GIS") consolidation process which were corrected in mid-2021 after the	
3		annual reliability report was filed.	
4	Q:	Ms. Eubanks claims that "EMM has significantly increased its planned	
5		spending on reliability programs in recent years. However, EMW has not." Do	
6		you agree with this statement?	
7	A:	No. Ms. Eubanks points to a data request response where Evergy provided	
8		historical actual investment levels for its reliability programs by jurisdiction. Those	
9		programs are designed to proactively replace individual assets or a small collection	
0		of assets based on condition assessments (i.e., wood poles). These reliability	
11		programs do not capture the entirety of investment that has been allocated to the	
12		EMW jurisdiction over the last several years.	
13	Q:	What have overall actual Evergy Missouri West Transmission and	
14		Distribution ("T&D") investment levels been in recent history?	
15	A:	Figure 3 below shows the total actual investment made in the EMW jurisdiction	
16		from 2019 to 2022	



Figure 3 – Annual T&D Investment Missouri West



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Q. What type of investments were made in EMW other than the reliability programs referenced in Ms. Eubank's rebuttal testimony that comprised the increased investment shown above?

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The large increase in EMW investment was driven by specific projects targeting large collections of assets including transmission lines, substations, and distribution lines. The largest drivers of those projects were either reliability or resiliency. For example, a large 69KV Transmission line in the northern parts of EMW territory was rebuilt along with the associated substations. That project was initiated to address reliability performance of that Transmission line along with the overall age

of the collection of assets. Similar reliability and resiliency projects comprised the increase in EMW investment.

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Q:

A:

On page 14 and 15 of her rebuttal testimony, Ms. Eubanks states that "SAIDI and CAIDI are unlikely to be improved through capital investment." Do you agree with this statement?

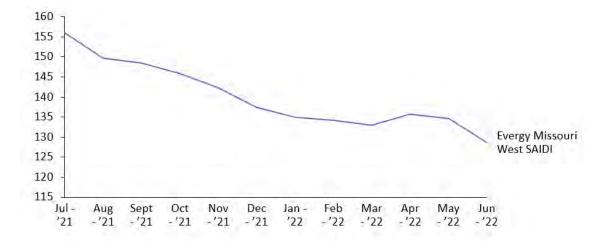
No, I do not agree with Ms. Eubanks statements about SAIDI and CAIDI not improving in relation to capital investment. Capital investments made by Evergy targeting reliability and resiliency will reduce the number of outages caused by equipment failure and will allow the grid to better withstand weather events. Decreasing the number of outages occurring will directly improve SAIFI. As stated above, SAIDI is calculated by multiplying SAIFI and CAIDI. Therefore, a reduction to SAIFI will improve SAIDI. CAIDI will also be improved with targeted capital investment, though not to the same degree as SAIFI. Evergy's investments in smart devices that help detect and troubleshoot outages faster will have a positive impact on CAIDI. An example of these smart devices includes expanding Supervisory Control and Data Acquisition ("SCADA") substation control and monitoring technology in substations that detect outages in seconds and allow for remote control to restore service, thus improving outage duration. Smart reclosers on distribution lines provide the same benefit at the distribution level. Finally, Communicating Fault Circuit Indicators provide remote sensing capability throughout the distribution system allowing Evergy to troubleshoot and restore outages faster based on the information they provide to outage control centers.

Q. Starting on page 14, Ms. Eubanks expresses concern at SAIDI and SAIFI trends primarily in EMW. What is your response?

Evergy is aware of reliability trends in EMW over the last three years. In response, Evergy has increased investment targeting reliability improvement and resiliency as shown in Figure 3 above. Recent reliability data shows that EMW is experiencing an improving trend in reliability as shown in Figure 4 below.

A:

Figure 4 – SAIDI 12-month Rolling Year Over Year Missouri West



Q: What conclusions would you draw from the recent SAIDI performance of EMW?

15 A: My conclusion is that the targeted investment Evergy executed over the preceding
16 three years is improving reliability performance over time in EMW as it was
17 intended.

1 Q: On page 15 of her Rebuttal Testimony Ms. Eubanks states: "Staff recommends 2 for Evergy to include in its February Capital Investment filings the SAIDI and 3 SAIFI reductions expected through 2030 by project/program." Further on 4 page 16, Ms. Eubanks also recommends Evergy provide a long list of 5 documentation related to capital investments over \$1 million annually to the 6 Commission. What is your view of these recommendations? 7 A: Evergy believes that the additional reporting requirements Ms. Eubanks proposes 8 are overly burdensome and duplicative of identical prudency reviews already part 9 of any rate case filing made by Evergy, including this docket. As Ms. Eubanks 10 states on pages 14 of her rebuttal testimony, Evergy has T&D capital investment 11 project scoring processes in place. These processes ensure that the investments 12 made are prudent and in the best interest of customers. Evergy also understands 13 and supports that when it requests these investments be added to its regulated rate 14 base as part of a rate case, the ratemaking process subjects all these investments to 15 prudence reviews. Providing this documentation annually and as part of rate cases 16 is duplicative, overly burdensome, and inefficient for stakeholders and customers. 17 Q: Ms. Eubanks states that Ameren and Liberty agreed to additional reporting 18 requirements as part of settlements to their most recent rate cases? Has 19 anything changed since those settlements were filed with the Commission? 20 A: Yes. On June 29, 2022, Missouri Senate Bill 745 was signed into law by Governor 21 Parson. The law updated certain language originally passed into law in 2018 22 through Senate Bill 564 which created Plant-In-Service Accounting ("PISA"). The 23 updated language created new reporting requirements for Missouri electric utilities

1		opting into the legislation. Specifically, on all projects over \$20 million,	
2		participating utilities will now be required to provide documentation as to why the	
3		investments were necessary on a periodic basis. These new reporting provisions	
4		were not in place when the Ameren and Liberty settlement agreements were filed	
5		with the Commission.	
6	Q:	Did Staff and other interveners in these cases participate in the negotiations	
7		that led to new reporting requirements in Senate Bill 745?	
8	A:	Yes, Evergy, other electric utilities, and many intervenors in this docket developed	
9		the new reporting requirements in Senate Bill 745. Evergy intends to comply with	
10		all aspects of the new legislation.	
11	Q:	How would you summarize Evergy's position in regards to reporting	
11 12	Q:	How would you summarize Evergy's position in regards to reporting requirements proposed by Ms. Eubanks?	
	Q: A:		
12		requirements proposed by Ms. Eubanks?	
12 13		requirements proposed by Ms. Eubanks? Senate Bill 745 implemented requirements for Evergy to provide frequent reporting	
12 13 14		requirements proposed by Ms. Eubanks? Senate Bill 745 implemented requirements for Evergy to provide frequent reporting on large T&D capital investments over \$20 million for all interested parties to	
12 13 14 15		requirements proposed by Ms. Eubanks? Senate Bill 745 implemented requirements for Evergy to provide frequent reporting on large T&D capital investments over \$20 million for all interested parties to review. Any investment project under the \$20 million threshold will be subject to	
12 13 14 15 16		requirements proposed by Ms. Eubanks? Senate Bill 745 implemented requirements for Evergy to provide frequent reporting on large T&D capital investments over \$20 million for all interested parties to review. Any investment project under the \$20 million threshold will be subject to prudence reviews during future rate proceedings, as has been precedent for many	
12 13 14 15 16 17		requirements proposed by Ms. Eubanks? Senate Bill 745 implemented requirements for Evergy to provide frequent reporting on large T&D capital investments over \$20 million for all interested parties to review. Any investment project under the \$20 million threshold will be subject to prudence reviews during future rate proceedings, as has been precedent for many decades. This process properly balances other parties' review of Evergy investment	

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A:

Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Evergy Metro, Inc. d/b/a Evergy)						
Missouri Metro's Request for Authority to) Case No. ER-2022-0129						
Implement A General Rate Increase for Electric)						
Service)						
In the Matter of Evergy Missouri West, Inc. d/b/a)						
Evergy Missouri West's Request for Authority to) Case No. ER-2022-0130						
Implement A General Rate Increase for Electric)						
Service)						
AFFIDAVIT OF I	BRUCE AKIN						
	, , , , , , , , , , , , , , , , , , ,						
STATE OF MISSOURI)							
) ss	,						
COUNTY OF JACKSON)							
Bruce Akin, being first duly sworn on his oath, states:							
1. My name is Bruce Akin. I work in Topeka, Kansas, and I am employed by							
Evergy Kansas Central, Inc. as Vice President, Transmission and Distribution.							
2 Attached hereto and made a par	t haraof for all purposes is my Surrebuttal						

- 2. Attached hereto and made a part hereof for all purposes is my Surrebuttal Testimony on behalf of Evergy Missouri Metro and Evergy Missouri West consisting of ten (10) pages, having been prepared in written form for introduction into evidence in the above-
- captioned docket.
- 3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Bruce Akin

Subscribed and sworn before me this 16th day of August 2022.

Notary Public

My commission expires: 4/2u/w25

ANTHONY R, WESTENKIRCHNER
NOTARY PUBLIC - NOTARY SEAL
STATE OF MISSOURI
MY COMMISSION EXPIRES APRIL 26, 2025
PLATTE COUNTY
COMMISSION #17279982