Exhibit No.:

Issue: Capacity Sales; SPP Fees Witness: John R. Carlson

Witness: John R. Carlson
Type of Exhibit: Rebuttal Testimony

Sponsoring Party: Evergy Metro, Inc. and Evergy

Missouri West, Inc.

Case No.: EO-2020-0227 / 0228

Date Testimony Prepared: September 11, 2020

MISSOURI PUBLIC SERVICE COMMISSION

CASE NOS.: EO-2020-0227 / 0228

REBUTTAL TESTIMONY

OF

JOHN R. CARLSON

ON BEHALF OF

EVERGY METRO, INC. and EVERGY MISSOURI WEST, INC.

Kansas City, Missouri September 11, 2020

REBUTTAL TESTIMONY

OF

JOHN R. CARLSON

Case Nos. EO-2020-0227 / 0228

1	Q:	Please state your name and business address.
2	A:	My name is John R. Carlson. My business address is 1200 Main, Kansas City, Missouri
3		64105.
4	Q:	By whom and in what capacity are you employed?
5	A:	I am employed by Evergy Metro, Inc. and serve as Senior Manager of Missouri Operations
6		for Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro") and
7		Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West").
8	Q:	On whose behalf are you testifying?
9	A :	I am testifying on behalf of Evergy Missouri Metro and Evergy Missouri West.
10	Q:	What are your responsibilities?
11	A:	My primary responsibilities include oversight of the Missouri operations' daily submittals
12		to the Southwest Power Pool ("SPP"), including generation and load, and management of
13		our transmission congestion portfolio and natural gas procurement. The Missouri
14		Operations group also has responsibility for SPP registration activities and we develop and
15		manage the Company's budget for Regional Transmission Organization ("RTO") fees and
16		transmission charges.
17	Q:	Please describe your education, experience and employment history.
18	A:	I received a Bachelor of Science degree in Architectural Engineering from the University
19		of Kansas in 1997. In 2004, I received a Master of Business Administration from the

University of Chicago Booth School of Business. I joined KCP&L in 2006 as an Energy Consultant in the Delivery Division. My responsibilities included managing all facets of the customer relationship for KCP&L's large industrial customers and developing solutions that met the customer's needs, as well as demand response and energy efficiency opportunities. In 2007, I became Manager of Market Competitiveness where I was responsible for developing and implementing non-regulated products and services for residential, commercial and industrial customers. In 2010, I moved to the Supply Division at KCP&L and started work as an Originator of wholesale power transactions. Since 2017 I have been in market operations and manage the group responsible for submitting assets and load to the SPP daily.

- 11 Q: Have you previously testified in a proceeding at the Missouri Public Service
 12 Commission ("MPSC" or "Commission") or before any other utility regulatory
 13 agency?
- 14 A: Yes. I have testified before the MPSC.

- 15 Q: What is the purpose of your testimony?
- 16 A: The purpose of my testimony is to respond to certain adjustments proposed by Staff witness

 17 J Luebbert regarding capacity sales and Southwest Power Pool ("SPP") fees. Company

 18 witness Brian File also addresses Staff's SPP adjustments.

1	Q:	Staff	witness	Luebbert	makes	the	claim	that	Evergy	Missouri	Metro	should	have

entered into a capacity sale contract and because it did not sell this capacity the

Commission should disallow \$1,161,474 (Luebbert Direct, p, 3). What do you make

of this claim?

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5 A: Not only is this claim incorrect, it is not in any way related to an audit of the Company's

MEEIA programs. Under Commission Rule 20 CSR 4240-20.093, the MEEIA audit

concerns costs that are recovered through the Company's Demand Side Investment

Mechanism ("DSIM") rider. The proceeds from a hypothetical capacity sale cannot be

recovered under the DSIM. Therefore, Staff's "disallowance" is illusory. Company witness

Brian File addresses this in his testimony.

11 Q: Aside from making its proposed adjustment in the wrong proceeding, what are the

other defects in Staff's "sale of capacity" claim?

13 A: Staff is under the mistaken impression that a ready market exists for unused capacity. The

overriding assumption made by Mr. Luebbert is that capacity sales are easily made, and

that extra capacity can be sold by a market participant at any time.

16 Q: Please explain further?

17 A: Capacity purchases and sales made in the SPP market are bilateral in nature, meaning they

are contracted between two counterparties outside of the SPP marketplace. Unlike other

regional transmission organizations or independent system operators, like the Midcontinent

Independent System Operator ("MISO"), SPP does not have a capacity market. Absent this

capacity market, it is incumbent upon market participants to canvass the market and find a

counterparty interested in buying or selling capacity as needed. This canvassing manifests

itself in many ways, some of which include: responding to capacity requests for proposal

1		("RFP"), contacting counterparties the Company contracted with in the past, following up
2		on past conversations where an entity may have expressed interest, cold-calling entities to
3		get an update on their operations and how they are positioned in the market, or contacting
4		existing customers to see if they have information on the market or know of other entities
5		that might have a need.
6	Q:	Does Evergy routinely canvass the marketplace for potential capacity sales?
7	A:	Yes, we do. Our origination group's primary responsibility is to develop relationships with
8		counterparties (i.e. utilities, energy marketers, municipalities, financial institutions and
9		independent power producers) so that when a need arises Evergy is considered a viable
10		option to respond to an RFP or sell capacity on a bilateral basis.
11	Q:	Did Evergy Missouri Metro choose not to enter into a 34.2 MW capacity sale contract
12		with a non-affiliate in 2018 and 2019 ¹ ?
13	A:	No, this allegation by Mr. Luebbert is incorrect. Not only did Evergy Missouri Metro not
14		make that decision, but it sold capacity during the timeframe of this prudency review. We
15		had a bilateral agreement with the **
16		approximately ** ** of capacity and we had an agreement with the **

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in prior years, but they were active during the period under audit in this case. Further,

¹ Luebbert Direct testimony on pg. 3, lines 18-19.

subsequent to its entry into those capacity sales, the Company continued to respond to RFPs in 2018 and 2019 as we have done for years.

3 Q: Why would prior year's agreements apply to a capacity shortfall in more recent 4 years?

Q:

A:

A:

Most utilities, like Evergy, have long-term planning teams that are analyzing capacity needs well into the future. That, along with the time it takes to develop an RFP, come to terms with a counterparty, and reserve transmission service, cause the capacity sales process to typically commence a year or two prior to the projected need. A similar process could occur with a municipality. If market pricing is aggressive, or at least perceived to be "cheap", a market participant might contract for capacity over a longer term to lock-in the pricing. Municipalities might transact on a longer-term basis in order to provide price certainty to their customers.

Please expand on the reservation of transmission and how that could impact the ability to sell capacity.

Even if counterparties agreed on terms and conditions around a capacity sale, the buyer may need to reserve transmission service from SPP, which would involve entering a transmission study process with the SPP. These studies take time and planning and could result in transmission system upgrades that would be paid by the buyer. It is not uncommon to have a potential sale fall by the wayside because transmission service could not be reserved without expensive upgrades. Sometimes it's not the upgrades that are expensive, but the delay before transmission service can be granted that is the issue. As an example, if capacity was sold to Company A, and in their analysis SPP determined that the flow of electricity to meet Company A's needs caused transformer B to be overloaded, then

1		Company A would be responsible for some if not all the transformer B upgrades.
2		Sometimes an upgrade can't be completed by the corresponding transmission owner in
3		time to meet the start date of the capacity need. At other times the upgrade was already
4		started because of a different company's transmission service request and still won't be
5		completed on time.
6	Q:	If the Commission determined that capacity sales should be considered as part of a
7		MEEIA prudency review, how should the Commission determine prudency?
8	A:	Instead of making a binary decision, was capacity sold during the review period, the
9		Commission should look at whether the Company was prudent in its business practices
10		regarding capacity. Was the Company actively meeting with potential customers? Did the
11		Company respond to RFPs? Were they taking reasonable measures in the market to sell
12		available capacity?
13	Q:	Do you agree with Staff's calculation of the value of the hypothetical capacity
14		contract?
15	A:	No. As discussed previously, having excess capacity does not create a cause and effect
16		relationship. Just because we have excess capacity doesn't mean we can always sell it.
17		Assuming there is an available capacity market to sell excess capacity at any time, there
18		are still problems with Staff witness Luebbert's analysis.
19		In his analysis, Mr. Luebbert incorrectly applies the 34.2 MW across the whole
20		year. The MEEIA-2 demand response programs are only applicable from June -
20 21		year. The MEEIA-2 demand response programs are only applicable from June – September, so any hypothetical MWs would only apply to the June – September timeframe.

1	Therefore, the hypothetical capacity contract should be for 34.2 MW over the 4-month
2	summer season. This would result in a hypothetical capacity sale of \$396,267.60.

A:

Q:

A:

Q: Staff witness Luebbert also claims that the Company chose not to attempt to avoid SPP expenses by targeting demand response events to reduce monthly peak load and avoid \$499,308 (Metro) and \$697,784 (West) in SPP transmission costs (Luebbert Direct, p. 3)? Is this a valid claim?

No, it is not. SPP fees are not recovered under the DSIM, therefore there is nothing to "disallow" as far as amounts recovered from customers. SPP costs are recovered in the Fuel Adjustment Clause ("FAC") tariff and in base rates, not in the DSIM. Company witness Brian File discusses these issues in his testimony.

Do you agree with Staff's calculation of the amount of SPP fees that could have been avoided?

No. As I have discussed throughout my testimony, one first must set aside the MEEIA tariff language and assume that SPP fees are included in the programs. If one takes that leap, then we can analyze Staff witness Luebbert's testimony.

The calculations Mr. Luebbert performed do not reflect how the SPP Schedule 11 fees are estimated. To take a step back, the Schedule 11 fees are those expenses that transmission customers within the SPP pay the transmission owners for the build out of the SPP transmission system. The regional portion of the Schedule 11 fees, those costs that are socialized across all transmission customers because the benefits of those upgrades are regional in scale, are allocated based on a company's load ratio share. The load ratio share is simply the ratio of an entity's average of their 12 monthly peaks to the average of SPP's twelve monthly peaks, expressed as a percentage. As an example, if the regional portion of

1		SPP's Schedule 11 costs was \$100 million and a market participant had a load ratio share
2		of 5% then their allocated portion of Schedule 11 fees would be \$5 million. It is the regional
3		portion of the Schedule 11 fees that could be impacted from reductions in peak load
4		because it would directly impact the load ratio share.
5	Q:	What are the inconsistencies in Staff witness Luebbert's testimony regarding the SPP
6		fees?
7	A:	Mr. Luebbert uses the incorrect year's data to estimate the Schedule 11 fees, using 2020
8		and 2021 for years 2018 and 2019, respectively, in calculating the fees. I have provided the
9		latest 2019 Schedule 11 projections from the SPP and updated the calculations to address
10		this inconsistency. The resulting correction reduces the potential Schedule 11 fee savings
11		to \$397,002.28 (from \$499,308.04) for Evergy Metro and \$666,008.23 (from \$697,738.87)
12		for Evergy MO West. There was also a double counting in Mr. Luebbert's calculations that
13		has been corrected.
14	Q:	Staff makes another SPP adjustment when it claims that the Company chose not to
15		target demand response events so that it could reduce load during some of the highest
16		Day-ahead Locational Marginal Price ("DA LMP")s hours. (Luebbert Direct, p. 3).
17		Does this claim have merit?
18	A:	No. Once again, this claim does not belong in a MEEIA audit. The SPP costs are not
19		recovered in the DSIM but in the FAC tariff and base rates. Company witness Brian File
20		discusses these issues in his testimony.
21	Q:	What is a DA LMP?
22	A:	The SPP market is comprised of a day-ahead and a real-time market. The DA LMPs are
23		the prices at which energy is purchased and sold through the SPP market on a day-ahead

basis. Market participants like Evergy offer generation for sale and bid load for purchase into the SPP market daily. This information is submitted to the SPP on a day-ahead basis, meaning on a Monday Evergy would submit data to the SPP for Tuesday's operating day. Using Monday as an example, submittals are due by 9:30 Monday morning, and results are released around 1:00 in the afternoon. The results at that time are for Tuesday's operating day and include the generation that will be running, when that generation will start/stop, megawatt ("MW") levels for that generation for every hour of Tuesday, prices for that generation, MWs of load cleared and prices for that load. The prices at each generator and load point are known as LMPs, and the DA LMPs are the LMPs for Tuesday that were calculated by SPP on Monday. Likewise, same day energy purchases and sales done in the market are priced at the real-time locational marginal price ("RT LMP").

Q:

A:

Do you agree with Staff's calculation of the value of the potential SPP savings if it reduced load during high DA LMP periods?

No, I don't. Staff used the five highest hourly DA LMP values for each month of the summer season, June through September, and calculated a theoretical amount the Company could have saved customers by calling demand response events. Absent the crystal ball that retroactively picking hours affords you, this would be hard to do given the complexity of the SPP market.

Staff does not discuss the potential risk of gambling on high DA LMPs with their utopian process. Regarding the curtailment of customer load, if the Company enacted Staff's strategy, we would not request our customers curtail load for less than 2-3 hours at a time, allowing for a higher likelihood of success of hitting the high DA LMP. However, the result of estimating a 2-3-hour window to chase a potentially high DA LMP could cost

more than it might save. Let's look at August 6, 2019 as an example and assume the same 57.41 MW of demand response as used in Staff's testimony. In Staff's testimony they show that hour-ending ("HE") 16, the hour that starts at 3:00 pm and ends at 4:00 pm, of August 6th is an hour when we should have called an event to capture the DA LMP. Remember, the Company would have had to make this determination by 9:30 am on August 5th. If the Company had called an event, thinking that sometime around HE 16 would have a high DA LMP, we likely would add an hour or two around each side of that hour, hoping that we guessed correctly. Here are the actual market results for that day:

August 6, 2019 - MO West Load LMP					
Hour-ending (HE)	DA LMP (\$/MWh)	RT LMP (\$/MWh)			
15	58.41	1,125.22			
16	72.99	118.07			
17	65.44	25.34			

If the Company had called an event over these three hours and customers responded in a typical manner (i.e. they had minimal issues with curtailing load, shutting down processes, etc.) the results would look like the following:

	August 6, 2019 - MO West Results					
Hour- ending (HE)	Requested Reduction	Actual Reduction (80%)	DA LMP (\$/MWh)	RT LMP (\$/MWh)	Hypothetical Benefit	
15	57.41	45.93	58.41	1,125.22	(\$9,564.21)	
16	57.41	45.93	72.99	118.07	\$2,834.18	
17	57.41	45.93	65.44	25.34	\$3,466.01	
	(\$3,264.02)					

In the above example the Company guesses correctly that sometime around HE 16 there will be high DA LMPs. Also, customers perform at an 80% level. Any difference between the load we bid into the DA market and the actual load in the RT market is settled in the RT market at RT LMPs. The Benefits are calculated as:

Hypothetical Benefit = (Requested Load Reduction x DA LMP) – (Requested Reduction – Actual Reduction) x RT LMP.

In a different scenario, over the same three hours, the results could look like the following:

August 6, 2019 - MO West Potential Results					
Hour- ending (HE)	Requested Reduction	Actual Reduction	DA LMP (\$/MWh)	RT LMP (\$/MWh)	Hypothetical Benefit
15	57.41	0.00	58.41	1,125.22	(\$64,598.88)
16	57.41	0.00	72.99	118.07	(\$6,778.40)
17	57.41	0.00	65.44	25.34	(\$1,454.77)
Total Benefit / (Cost) (\$72,832.05)					

In the "Potential Results" scenario the Company initially planned for 57.41 MW but decided on the day of the event not to call because of a change in weather (cloud coverage or rain chances increased). The Company had already bid its load in the SPP Market, on a day-ahead basis, adjusted down by 57.41 MW betting that LMPs would be high the next day. Because load reduction did not occur, the Company had to buy those MWs in the RT market at the RT price. This resulted in the total loss shown above.

Staff's recommendation that the Company use the MEEIA program to place bets on the DA LMP is not a zero-sum proposition. If Evergy bets wrong – a distinct possibility given the vicissitude of the weather and market dynamics – and the RT LMP is significantly higher than the DA LMP then customers would not only fail to see a benefit, but in fact would bear the cost of such a wrong bet. Staff's recommendation that the Company use the MEEIA program to bet on high LMPs would in fact be imprudent.

Q: How would you summarize your testimony?

A: The main theme in my testimony is that the SPP market is dynamic, specifically in the way capacity is procured and in how the DA and RT markets operate. I also address errors in the math presented by Staff for how impacts would be calculated.

From a capacity perspective, it is not simply a decision of should one sell capacity or not; it's more nuanced then that. Are there counterparties that have a capacity need? Do their needs align with our current positioning? Is transmission needed, and can it be reserved? Are there upgrades associated with the transmission? Will we align on terms and conditions with a potential buyer? The Company continually engages with market participants to gauge interest in and need of market solutions, to include capacity. To suggest that because the Company did not sell a particular amount of capacity it made a decision not to sell capacity is inaccurate and not representative of reality.

Regarding the SPP markets and the Company's demand response programs, these programs were not designed to interact as directly with the SPP market as suggested by Staff. To do so would require much rework of program design and customer engagement, and this is discussed in the testimony of Company witness Brian File. Looking at day-to-day operations, trying to guess which hours will have high DA LMPs is not a "slam dunk". Retroactively choosing which hours should have been curtailed is easy, guessing which hours could have high DA LMPs is not. The SPP markets are fickle with many unknowns across generation and transmission assets, energy flows and market participants' strategies, most of which the Company has limited insight.

Q: Does that conclude your testimony?

23 A: Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of the Second Prudence Review of the Missouri Energy Efficiency Investment Act (MEEIA) Cycle 2 Energy Efficiency Programs of Evergy Metro, Inc. d/b/a Evergy Missouri Metro)) File No. EO-2020-0227)				
In the Matter of the Second Prudence Review of the Missouri Energy Efficiency Investment Act (MEEIA) Cycle 2 Energy Efficiency Programs of Evergy Missouri West, Inc. d/b/a Evergy Missouri West)) File No. EO-2020-0228)				
AFFIDAVIT OF JO	OHN R. CARLSON				
STATE OF MISSOURI)) ss COUNTY OF JACKSON)					
John R. Carlson, being first duly sworn on his oath, states: 1. My name is John R. Carlson. I work in Kansas City, Missouri, and I am employed by Evergy Metro, Inc. and serve as Senior Manager Missouri Operations – Generation Resources for Evergy Metro, Inc. d/b/a Evergy Missouri Metro ("Evergy Missouri Metro) and Evergy Missouri West, Inc. d/b/a Evergy Missouri West ("Evergy Missouri West"). 2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony on behalf of Evergy Missouri Metro and Evergy Missouri West consisting of twelve (12) 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. Subscribed and sworn before me this 11th day of September 2020.					
Not	ary Rublic				
My commission expires: 4/24/2021	ANTHONY R WESTENKIRCHNER Notary Public, Notary Seal State of Missouri Platte County Commission # 17279952 My Commission Expires April 26, 2021				