Exhibit No.:

Issue(s): Introduction to

Witnesses; Summary of MEEIA; MEEIA Savings and Customer Benefits; IRP PRP; Earning

opportunity and EM&V

Witness: Antonio M. Lozano
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Union Electric Company

File No.: EO-2023-0136

Date Testimony Prepared: April 26, 2024

MISSOURI PUBLIC SERVICE COMMISSION

FILE NO. EO-2023-0136

REBUTTAL TESTIMONY

OF

ANTONIO M. LOZANO

ON

BEHALF OF

UNION ELECTRIC COMPANY

D/B/A AMEREN MISSOURI

St. Louis, Missouri April, 2024

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REBUTTAL TESTIMONY

OF

ANTONIO M. LOZANO

FILE NO. EO-2023-0136

1		I. <u>INTRODUCTION</u>
2	Q.	Please state your name and business address.
3	A.	My name is Antonio M. Lozano. My business address is One Ameren Plaza,
4	1901 Choutea	au Avenue, St. Louis, MO 63103.
5	Q.	What is your position with Ameren Missouri?
6	A.	I am employed by Union Electric Company d/b/a Ameren Missouri
7	("Ameren M	issouri" or "Company") as its Director of Energy Efficiency and Demand
8	Response.	
9	Q.	Are you the same Antonio M. Lozano that submitted direct testimony
10	in this case?	
11	A.	Yes, I am.
12	Q.	To what testimony or issues are you responding?
13	A.	I am responding to a multitude of topics and criticisms in the direct testimony
14	filed in the C	Company's Missouri Energy Efficiency Investment Act ("MEEIA") Cycle 4
15	amended app	lication ("Plan" or "Amended Application") by the Missouri Public Service
16	Commission S	Staff ¹ (or "Staff") and to the direct testimony issued by Dr. Geoff Marke ² of the

 ¹ File No. EO-2023-0136, Direct Testimony of Brad. J. Fortson, Direct Testimony of Sarah L. K. Lange, and Direct Testimony of J Luebbert (Public and Confidential).
 ² File No. EO-2023-0136, Direct Testimony of Geoff Marke.

1 Office of the Public Counsel ("OPC"). Additionally, I will briefly address the direct testimony 2 filed by the National Resource Defense Council ("NRDC").³ 3 Q. Please introduce and summarize the testimony of the Ameren Missouri 4 witnesses who have filed rebuttal testimony. 5 The following is a summary of Ameren Missouri's rebuttal testimony from other A. 6 witnesses: 7 Rebuttal Testimony of Mr. Timothy Via. Mr. Via responds to various 8 direct testimony from Staff and OPC, focusing on portfolio and program 9 design, including the impacts of federal funding. 10 Rebuttal Testimony of Mr. Neil Graser. Mr. Graser responds to various 11 direct testimony from Staff and OPC, focusing on evaluation, 12 measurement, and verification ("EM&V"), Rider EEIC and related impacts. 13 14 Rebuttal Testimony of Mr. Matthew Michels. Mr. Michels responds to 15 various direct testimony from Staff and OPC, focusing on the Integrated 16 Resource Plan ("IRP"), MEEIA's inclusion within it, and related topics. Rebuttal Testimony of Mr. Steven Wills. Mr. Wills responds to various 17 18 direct testimony from Staff and OPC, focusing on Staff's posture related 19 to resource planning issues, and several specific topics, including Staff's 20 discussions around earnings opportunities, the manifestation of benefits

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of reduced energy consumption through the fuel adjustment clause

³ File No. EO-2023-0136, Direct Testimony of Stacy L. Sherwood.

1 ("FAC"), mechanisms to address the throughput disincentive, and other 2 details. 3 II. SUMMARY OF REBUTTAL 4 Q. Please summarize your rebuttal testimony. 5 A. Staff and OPC criticize Ameren Missouri's MEEIA 4 Plan, past MEEIA 6 Plans, and make claims suggesting the failure of energy efficiency and demand response 7 in general; the vast majority of criticism is at odds with the Commission's rules for 8 developing, implementing, and regulating energy efficiency and demand response 9 programs, precedence, and sound integrated resource planning, and is also at odds with the 10 very real benefits that have been and are being delivered through MEEIA programming. 11 This collective critique is then used as a basis for their recommendation to not approve a 12 MEEIA portfolio at this time.⁴

The Plan filed in the amended application is consistent with the Company's most recent IRP filing and preferred plan within it,⁵ is cost-effective,⁶ complies with the Commission's rules including meeting those requirements, and will benefit all customers, whether or not they participate in the programs. The energy and demand savings included in the Plan are consistent with the Commission rules and the potential to be realized under the Plan was verified by the 2023 Market Potential Study Plan ("MPS") conducted by the Company. Additionally, there are numerous and material additional societal benefits that

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⁴ File No. EO-2023-0136, Direct Testimony of Brad. J. Fortson, page 2 lines 1 – 6, and Direct Testimony of Sarah L. K. Lange, page 1 lines 15 – 17, and Direct Testimony of J Luebbert (Public and Confidential), page 4 lines 3 – 11, and Direct Testimony of Geoff Marke, page 16 lines 3 – 7.

⁵ File No. EO-2024-0020, In the Matter of Union Electric Company d/b/a Ameren Missouri's 2023 Utility Resource Filing Pursuant to 20 CSR 4240 – Chapter 22.

⁶ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application – Public.pdf, page 14 Table 1 – Portfolio Cost-effectiveness Summary (NPV).

- 1 our customers and the state will gain from the implementation and execution of this Plan.
- 2 Staff, and to a lesser extent, OPC's testimony, however, dismisses these benefits.

Customers have consistently participated in the Company's MEEIA portfolios since inception, and the Company continues to look for ways to increase opportunities for customers to participate. The fact our customers participate at material levels in our portfolios demonstrates that our customers prefer these programs be available. Furthermore, there are multiple instances in recent portfolio years where the Company has needed to approach stakeholders to propose either pausing a particular program or adding additional funding to keep a program going as demand was so high that funds had been committed well before the year was over. Neither Staff nor OPC acknowledge the success of the Company's MEEIA portfolios.

Moreover, the macro level drivers⁸ observed within and beyond the industry do not inhibit the inclusion of a MEEIA demand side management ("DSM") portfolio as a key resource in the Company's Preferred Resource Plan ("PRP"), but on the other hand increase both the importance and urgency of its inclusion and need for efficacy.

Staff and OPC ignore these drivers and the framework for MEEIA. Staff's and OPC's position is contrary to the Commission's rules and prior orders and dismisses the successful MEEIA programs. The law, rules, processes, and precedent are well designed and support numerous opportunities for independent voices, continuous improvement, and healthy debate, while moving forward with energy efficiency and demand response savings

⁷ April 15, 2024, 11-Step Process Request to suspend the Business Social Services program; and July 13, 2023, Stipulation and Agreement filed to add additional \$1.6 million in funding for Residential Heating and Cooling program; and July 13, 2022, Stipulation and Agreement filed to add additional \$2.5 million in funding to Residential Heating and Cooling program.

⁸ Transitioning the generation fleet, increasing environmental regulations, new federal funding.

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- 1 at a pace our state needs. Ameren Missouri designed its MEEIA 4 Plan based on our
- 2 experience from our MEEIA 1-3 cycles and sought input from Staff and stakeholders in
- 3 every step of the development of the amended MEEIA 4 Plan. Staff's and OPC's position
- 4 ignores the success of the past cycles and asks for a complete change in applying the
- 5 MEEIA statute and previous Commission orders regarding MEEIA.
- Finally, this departure from past precedent is unsupported and short-sighted. Our
- 7 collective roles require that we continue to look forward ensuring our customers and state
- 8 can move ahead with confidence that what we provide will be safe, reliable, and affordable.
- 9 DSM through MEEIA has and will continue to play a key role in ensuring this happens.

III. OVERALL OBSERVATIONS OF STAKEHOLDER TESTIMONY

- Q. What specific issues do Staff and OPC identify in their testimony?
- 12 A. Generally speaking, Staff and OPC make three arguments. First, they claim
- that MEEIA has not, and therefore will not, defer or offset supply-side investments. Second,
- 14 they claim that the Company should not be allowed to recover an earnings opportunity because
- the MEEIA portfolios have not deferred or offset supply-side investments. Lastly, they claim
- that EM&V results cannot be trusted.
- Q. What are your overall observations of Staff and OPC direct testimony?
- 18 A. Staff and OPC recommend the Commission not approve the Company's
- request to implement the MEEIA 4 Plan at this time. The recommendation is at odds with
- the Commission's past approvals of the Company's MEEIA 1-3 Cycles, public policy, state
- 21 law, and sound integrated resource planning; these recommendations undermine the
- 22 Company's obligations to provide safe, reliable, and affordable power.

⁹ See Direct Testimony of Antonio M. Lozano, page 14, line 7 through page 20, line 3.

If one was to have no prior exposure to the utility industry, the electric grid, or energy efficiency and demand response, and stumble into the set of direct testimony collectively offered by Staff and OPC in this docket, it would not be a stretch for them to come away wondering why the Commission approved any of these measures, programs, or much less, any of these portfolios for over a decade.

As Stephen Covey so eloquently puts it, "[t]he main thing is to keep the main thing

As Stephen Covey so eloquently puts it, "[t]he main thing is to keep the main thing the main thing." ¹⁰

This begs the question with MEEIA, and this amended application, what is the main thing? The main thing in this case is, should Ameren Missouri's PRP include utility DSM programs through MEEIA?

The answer is a resounding yes.

Staff's and OPC's position contradict the state of Missouri's policy on energy efficiency and demand response. The MEEIA statute declares, "[i]t shall be the policy of the state to value demand-side investments equal to traditional investments in supply and delivery infrastructure and allow recovery of all reasonable and prudent costs of delivering cost-effective demand-side programs." And, "[t]he commission shall permit electric corporations to implement commission-approved demand-side programs proposed pursuant to this section with a goal of achieving all cost-effective demand-side savings."

The direct testimony presented by Staff and OPC suggests the Commission not value DSM investments equal to traditional investments in supply and delivery

¹⁰ Quote commonly attributed to Stephen Covey, co-founder of FranklinCovey, found at: https://www.franklincovey.com/

¹¹ See 393.1075(3) and (4).

1 infrastructure. Specifically, Staff and OPC dismiss the following considerations in the 2 Company's Plan: 3 1) The IRP rules state that DSM needs to be analyzed as part of a potential preferred plan. 12 The Company's PRP includes DSM, but Staff fails to 4 5 acknowledge the loss of benefits and cost to customers for not including 6 DSM. For example, not adopting DSM will cost customers approximately \$4.197 billion over the PRP.¹³ 7 2) A Missouri regulated electric utility seeking to utilize demand-side 8 9 programs and demand-side program investment mechanisms is required 10 to use the IRP and risk analysis used in its most recently adopted 11 preferred resource plan to calculate its avoided costs, unless the 12 Commission grants it a variance from the request for good cause shown.14 13 3) The Company's PRP includes DSM at a level that is materially the same 14 15

- as what was filed in the amended application.¹⁵
- 4) That level of DSM in the Company's amended application is backed up by market data received through a request for proposal ("RFP") process undertaken with program implementation contractors in the design and development phase of this MEEIA filing.

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¹² Commission Rule 20 CSR 4240-22.050.

¹³ File No. EO-2024-0020, Notice of Filing Correction to 2023 Integrated Resource Plan, Description of Correction and List of Revisions (Public, Confidential and Highly Confidential), Chapter 10 - Strategy Selection.pdf, page 50 Table 10.4 EVBI Analysis Results.

¹⁴ See 20 CSR 4240-20.092(1)(C) and 20 CSR 4240-20.092(2).

¹⁵ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application, page 16 Table 2 - Comparison of MEEIA 2025 - 27 to the 2023 IRP Preferred Plan.

1	5) Within the amended application and in the direct testimony, the
2	Company stated that if these DSM levels are not achieved over the
3	twenty-year IRP period, 2,400 MWs of additional generation resources
4	will be needed. ¹⁶
5	6) The MEEIA law states that, "[t]he commission shall permit electric
6	corporations to implement commission-approved demand-side
7	programs proposed pursuant to this section with a goal of achieving all
8	cost-effective demand-side savings." ¹⁷
9	These are not new considerations. The demand-side management MPS is not a new
10	type of study and is required under the Commission's rules. The various levels of potential
11	coming from that study are to be considered as part of the Company's broader integrated
12	resource planning process, to ultimately determine a preferred plan. This is not a new
13	process, and neither is the approach for avoided costs. The total resource cost test to
14	understand whether a portfolio and individual programs is cost effective is not a new test,
15	is codified in the Commission's rules, and is identified in the MEEIA law as the preferred
16	cost-effectiveness test in the state. EM&V is most certainly not new, and the EM&V
17	process is also codified in the Commission's rules.
18	I will describe below how Company witnesses will further explain that the Plan
19	incorporates and analyzes these considerations. Suffice it to say, the process, along with

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numerous stakeholder opportunities for involvement and continuous improvement, is in

place, and has proven to be beneficial to customers for over a decade in this state.

¹⁶ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application, page 78.

¹⁷ See 393.1075(3) and (4).

1	What we have seen throughout Staff's testimony and to a lesser extent OPC's, is a
2	gathering of tactical points that is at best distracting an individual from the main point. If
3	a MEEIA portfolio is not included in the PRP, then what happens?
4	Staff and OPC do not have to answer this question - but we must, and we have,
5	consistently answered that DSM must be included as a part of the IRP. The legislature also
6	concluded that it is the policy of the state of Missouri to value demand side resources
7	equally with traditional investments and established the goal of achieving all cost effective
8	demand side savings.
9	This is the reason there is a formal structure tied to the DSM MPS. The IRP, the
10	design, development, filing, execution, and EM&V of a MEEIA portfolio, and prudence
11	reviews on the back end are all robustly built out. This is why the processes are there. This
12	is why the opportunities to evolve and include stakeholders of all types are there. This is
13	why the independent parties are there.
14	If we simply discontinue DSM, we know what the impacts are and those impacts
15	harm customers to the tune of approximately \$4.197 billion.
16	1) From an IRP standpoint, one plan analyzed was Plan I, "No Additional
17	DSM" which studied a scenario with no additional DSM, but which
18	otherwise includes all of the other portfolio attributes from the preferred
19	plan. Under that Plan I, two additional generation resources for a total
20	of 2,400 MWs would be needed in addition to what is already needed
21	above and beyond all of the other generation resources already reflected

1		in the Company's Preferred Resource Plan. 16 This would cost ratepayers
2		approximately \$4.197 billion over the preferred plan with DSM on a net
3		present value of revenue requirement ("NPVRR") basis.
4	2)	From a financial perspective, analysis shows the MEEIA 4 portfolio as
5		proposed will provide \$303 million of net benefits to the Company's
6		customers. 19
7	3)	From an economic perspective, this amended application is proposed to
8		invest \$370 million in our state for the 2025 - 2027 portfolio years.
9		Among other impacts, 2,710 jobs are expected added as a result of
10		implementing the portfolio. ²⁰ The creation of 2,710 jobs in the state of
11		Missouri benefits Ameren Missouri customers.
12	4)	From a health and safety perspective, studies have shown poor indoor
13		environmental quality makes up nearly 14% of healthcare costs today.
14		a. "Efficiency improvements to homes, such as air sealing and
15		insulation, can reduce asthma-related visits to the emergency
16		room by 12%."
17		b. "Appropriate ventilation systems and improving building
18		efficiency also results in reduced indoor air pollutants and mold.
19		Lower rates of sinus infections, allergies and colds have also

¹⁸ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application – Public.pdf, page 78.

File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application, page 14 Table 1 – Portfolio Cost-effectiveness Summary (NPV).
 20 2023 MPS_RAP_MAP_LF Job Impact v2.xlsx, included in workpapers provided with the Amended Application.

1	been observed after efficiency upgrades to the building
2	envelope."
3	c. "Studies have found an increase in productivity and cognitive
4	function for workers employed in energy efficient buildings."
5	d. And "weatherization upgrades can improve mental health
6	through enhancing comfort and reducing stress from high energy
7	bills. Research from the Department of Energy found that after
8	upgrades, residents reported a reduction in poor mental health
9	days by 48%." ²¹
10	5) From a portfolio perspective, customers would immediately lose their
11	ability to more effectively manage their usage and lower their bills.
12	Equipment and buildings are constantly degrading; if programs are not
13	available with opportunities of customers from all classes to participate,
14	then that degradation, that waste, will compound. The negative
15	ramifications will be felt by that specific customer, yes. They will also
16	be felt far beyond as health and safety declines, the economy drops, and
17	the IRP will need to consider more expensive resources. As noted above,
18	the IRP excluding DSM would cost customers approximately \$4.197
19	billion over the preferred plan. ²²

Health Benefits of Energy Efficiency: How Saving Energy Saves Lives, pages 1 and 2.
 File No. EO-2024-0020, Notice of Filing Correction to 2023 Integrated Resource Plan, Description of Correction and List of Revisions (Public, Confidential and Highly Confidential), Chapter 10 – Strategy Selection, page 50 Table 10.4 EVBI Analysis Results.

1 Q. Your concerns here are broader than simply MEEIA?

A. They are.

The macro drivers that we and other utilities face are the same as what the Company's witnesses have discussed in recent supply side resource dockets in front of the Commission and are wholly applicable here. The Company must understand these drivers (e.g., transitioning the generation fleet, increasing environmental regulations, etc.) when making resource planning decisions, including DSM.

The barriers and hurdles that Staff are contemplating for any MEEIA portfolio are intractable and only serve to impede the progress of energy efficiency and demand response in the state. If that progress is impeded, the resource plan as a whole suffers. Benefits that could have been obtained by and for our customers, by and for our state, will not be.

Discontinuing energy efficiency programs is extremely harmful to our customers and our state, as we are attempting to move forward together through this clean energy transition in a safe, reliable, and affordable manner. If left unchecked, they will result in approximately \$4.197 billion more costs²³ to our customers, with those same customers having less ability to manage their usage, less ability to lower their bills, less ability to positively and directly impact their health and the safety of their immediate surroundings, and the economy of our state will suffer with less investment and fewer jobs.

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²³ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application, page 78; *see also* File No. EO-2024-0020, Chapter 9 and Chapter 10, showing costs of \$4.187 billion more than the PRP on a net present value basis.

1	Q. In their direct testimonies, Staff and OPC discussed macro level driver
2	such as federal funding and the clean energy transition as reasons to pause MEEIA
3	Are you aware of other states in the Midwest that are taking action to pause, shut down
4	or materially reduce utility energy efficiency and demand response programs as a resul
5	of these drivers?
6	A. No.
7	In discussions and research, I am not aware of any states in the Midwest that are pausing
8	shutting down or materially reducing energy efficiency and demand response programs. Whil
9	federal funding, the clean energy transition, increasing environmental regulations and other
10	factors are facing the entire utility industry today, I cannot find any evidence to say that they ar
11	driving states around us to pause DSM or do less.
12	On the contrary, there are states in the Midwest that are looking for opportunities to
13	make additional progress. ²⁴ This includes applying for, and incorporating available federa
14	funding, to increasing the size and reach of utility programs.
15	Simply put, there is no evidence or reason to believe that either Staff and OPC hav
16	found and understood something that no other Commission in the states around us has been
17	made aware of and felt appropriate to act on in ending it DSM investments. Instead, I would
18	contend that there is another, better way to look at this.
19	Q. Do you have any reactions with the testimony filed by NRDC?
20	A. In general, the Company is supportive of the direction and concepts proposed

by the NRDC related to the size and continuity of programs.

²⁴ See MEEA workpaper, "Midwest EE Portfolio Budget Examples for AMO," the average annual investment in energy efficiency programs has increased for utilities in Illinois, Michigan, and Minnesota between their previous and current plans.

1	I note	that out of the three stakeholders who filed direct testimony, NRDC has the most
2	experience ap	opearing in cases across the region and nation, and NRDC supported the
3	Company's Pl	an, especially with regards to continuity of programs, and size. NRDC did not
4	raise any issue	es regarding the development of the Plan and its evaluation.
5	I will	also note that we must ensure cost-effectiveness is a key consideration for what,
6	when, how, an	d how much we propose to do in MEEIA. This has driven what we have proposed
7	as part of the C	Company's preferred plan in the 2023 IRP, which is also materially consistent with
8	this amended application. We will continue to explore opportunities to do more, keeping cost	
9	effectiveness t	top of mind.
10 11	IV. STA	FF AND OPC'S ARGUMENTS DISTRACT, ARE NOT SUPPORTED BY COMMISSION RULES OR PRECEDENCE
12	Q.	What are stakeholders' main arguments?
13	A.	They can be grouped in the following:
14		1) MEEIA has not, and therefore will not defer or offset supply-side
15		investments.
16		2) Consequently, there should be no earnings opportunity.
17		3) EM&V cannot be trusted.
18	The M	IEEIA law, rules, and evaluation procedures in place have contemplated how to
19	objectively me	easure the effectiveness of the energy efficiency and demand response programs.
20	The Company	's MEEIA Plans were implemented and evaluated consistent with the law, these
21	rules, and eval	luation procedures. The review process allows Stakeholders, including Staff and
22	OPC ample of	opportunities for an external review and a voice to collectively improve the
23	development,	deployment, execution, and EM&V of these portfolios. In no way will one find
24	evidence in a	ny point of the process (which is designed to bring to light and consider

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1 stakeholder views exactly such as this) that point to any of these three as budding or more 2 substantial concerns. On the contrary, one would find an EM&V process that has become less 3 contentious and more collaborative, a portfolio that has become more transparent, a portfolio 4 life cycle from the DSM MPS all the way through EM&V that has grown in opportunities to 5 participate, and an execution that clearly, and objectively continues to show how the 6 Company is ensuring customers are benefitting through avoided costs and other societal 7 benefits. 8 Furthermore, what avoided costs are and what they mean for a MEEIA portfolio; how 9 deferral or avoidance of supply-side investments interplays with MEEIA; how to show cost 10 effectiveness and customer benefits, including all customers in a class regardless of 11 participation; the overall purpose and value of MEEIA; and what are the benefits to be gained 12 from a MEEIA portfolio, have all already been well-thought-out and ruled upon by the

V. <u>SAVINGS ARE REAL, WHILE STAFF AND OPC ATTEMPT TO</u>
<u>JUSTIFY THEY SHOULD NOT BE COUNTED</u>

fact and conclusions of law of that Order to appropriate points made by Staff and OPC.

Commission with their 2020 decision on Evergy's MEEIA 3 cycle. 25 I will tie those findings of

Q. Can you elaborate on the various arguments that Staff and OPC presented related to MEEIA that the portfolios have not, and therefor will not defer or offset supply-side investments?

A. Yes. Most relevant is Staff witness Luebbert's testimony that it is not reasonable for the Commission to reward Ameren Missouri shareholders for avoiding generation related earnings opportunities while Ameren Missouri spends billions of dollars on generation related

²⁵ File No. EO-2019-0132, Amended Report and Order, Issued March 11, 2020.

- 1 investments. ²⁶ He also claims that the Company did not avoid an earnings opportunity because
- 2 Ameren Missouri's "gross and net rate base related to generation capacity grew while reducing
- 3 its MW of accredited capacity."²⁷
- 4 Staff witness Luebbert asserts that if the programs in a MEEIA application are not
- 5 expected to result in avoided generation facility costs through reduced, deferred or avoided
- 6 investments, then the avoided costs for a generation facility are zero.²⁸
- 7 OPC witness Marke also testifies that MEEIA has not avoided costs in a meaningful
- 8 way.²⁹
- 9 I wholeheartedly disagree with each of these points individually, and that they were
- 10 collectively used in a substantial way as justification for Staff and OPC's recommendations to
- 11 not move forward with a MEEIA portfolio at this time.³⁰ In the event my thinking here were
- 12 flawed, the fact still remains that there are highly important points to this discussion found by
- the Commission we will review shortly.
- Before that review, and keeping in mind the above discussion on the MEEIA law, rules,
- and processes, this is the right time for a few reminders:
- Integrated resource planning is exactly as it is named, integrated. It cannot be
- singular and linear to be effective, but instead must be multi-dimensional. The
- 18 Company's witness Michels is an expert here and provides testimony regarding

 $^{^{26}}$ File No. EO-2023-0136, Direct Testimony of J Luebbert (Public and Confidential), page 3 lines 12-14, repeated on page 17 lines 9-11, page 18 lines 5-11.

²⁷ File No. EO-2023-0136, Direct Testimony of J Luebbert (Public and Confidential), page 13 lines 6 – 7.

²⁸ File No. EO-2023-0136, Direct Testimony of J Luebbert (Public and Confidential), page 7 lines 16 – 18.

²⁹ File No. EO-2023-0136, Direct Testimony of Geoff Marke, page 6 line 14 – page 7 line 8.

 $^{^{30}}$ File No. EO-2023-0136, Direct Testimony of Geoff Marke, page 16 lines 3 – 7; Direct Testimony of Brad J. Fortson, page 2 lines 1 – 6 and supported throughout Mr. Fortson's testimony and repeated through all of Staff's direct testimony.

the IRP process and how Ameren Missouri considered MEEIA as part of the
preferred plan.
Although I am not an attorney and do not offer a legal interpretation, the
Commission made the following findings as part of its 2020 decision in
Evergy's MEEIA 3 case (emphasis added below):
o "Avoided costs or avoided utility costs means the cost savings obtained by substituting demand-side programs for existing and new supply-side resources. Avoided costs are the foundation of whether a MEEIA program is cost-effective under the TRC ³¹ test. Avoided costs include
avoided utility costs resulting from demand-side programs' energy savings and demand savings associated with generation, transmission, and distribution facilities. Nowhere does the MEEIA statute say that a supply-side resource must be avoided or deferred." ³²
 "Staff's use of zero for avoided costs is inappropriate because the MEEIA statute does not limit avoided costs to those associated with the deferral of capacity or require deferral of capacity."³³
"Demand-side programs that produce capacity savings have an avoided cost greater than zero even if the subject utility is long on capacity. Valuing avoided costs at zero, as Staff suggests, would unreasonably block the implementation of otherwise cost-effective demand-side programs. This would reduce the number of cost-effective programs offered by companies that have excess capacity." ³⁴
 "MEEIA is not a program for managing generation and providing supply-side power. MEEIA is designed to compensate the utility for promoting energy efficiency as it encourages its customers to save money by using less of the product the utility sells."³⁵
 "Valuing avoided generation as the means to show benefits to all customers overlooks the purpose of MEEIA, which is to encourage energy efficiency. Utilities should be endeavoring to increase customer participation in energy efficiency programs. While participating

1 2 3 4 5 6 7 8	because the programs will be cost-effective. Non-participating customers benefit from cost-effective programs, because cost-effective programs save more money than they cost. Simply put, all customers benefit, but participating customers benefit more." "Benefits from a reduction in a customer's bill is not the only benefit to customers. There are also indirect societal benefits, such as improved health and safety, investment in local economies, and local
9	job creation." ³⁷
10 11	The Commission found that the purpose of MEEIA is to encourage energy efficiency.
12	All customers benefit from cost-effective MEEIA portfolios, with those benefits ranging from
13	deferral or offsetting of supply-side investments, to managing usage, to lowering bills, to other
14	societal benefits. Avoided costs of zero are an inappropriate conclusion as a sole result of
15	analysis done related to deferral or avoidance of supply-side investments. Additional flaws in
16	Staff's and OPC's interpretation of Commission rules and the MEEIA statute will be
17	addressed in the Company's initial brief.
18	Q. Despite the Commission's conclusions in the Evergy case, Staff and OPC
19	still put forth the same arguments?
20	A. Correct.
21	In addition to what was laid out above, Staff witness Luebbert believes that the IRP is
22	not a transparent view of a specific MEEIA portfolio since the IRP uses a 20-year timeframe. ³⁸
23	As one might suspect, the Commission concluded this position was unreasonable. Two
24	of the most salient comments (emphasis added below):

³⁶ *Id.* at page 15, number 42.
³⁷ *Id.* at page 15, number 44.
³⁸ File No. EO-2023-0136, Direct Testimony of J Luebbert (Public and Confidential), page 20 line 3 to page 22 line 4

"The Commission's IRP rule requires that Evergy analyze combinations of demand-
side management programs and supply side resources to look for the lowest net present value
of revenue requirement." ³⁹
"A Missouri regulated electric utility seeking to utilize demand-side programs and
demand-side programs investment mechanisms is required to use the IRP and risk analysis
used in its most recently adopted preferred resource plan to calculate its avoided costs, unless
the Commission grants it a variance from the request for good cause shown." ⁴⁰
We have done and continue to do the appropriate analysis to ensure our customers are
receiving the most prudent MEEIA portfolio, as part of our broader IRP, as possible.
VI. THE MEEIA STATUTE ALLOWS AN EARNINGS OPPORTUNITY
Q. Staff and OPC testify that the Commission should not allow an earning
opportunity. Is this position reasonable?
A. No, this is not reasonable.
Staff and OPC have made the following claims as to why they believe there should
be no earnings opportunity.
• To the extent a MEEIA cycle is not reducing, deferring, or avoiding future
To the extent a Wieldia cycle is not reducing, deterring, or avoiding future
investment opportunities, then no EO is appropriate. ⁴¹

 ³⁹ File No. EO-2019-0132, Amended Report and Order, page 10, number 17.
 ⁴⁰ File No. EO-2019-0132, Amended Report and Order, page 22, letter L.
 ⁴¹ File No. EO-2023-0136, Direct Testimony of J Luebbert (Public and Confidential), page 12 line 18 – 19.

1	reasonably established through measured and verified efficiency savings.
2	then the award of an EO is inappropriate. ⁴²
3	o And the benefits are hard to establish if they have ever really
4	happened. ⁴³
5	• It has been difficult to design MEEIA portfolios and mechanisms that are
6	beneficial to all customers in a customer class, regardless of whether the
7	programs are utilized by all customers ⁴⁴ , and the Commission has not
8	reviewed this statutory requirement. ⁴⁵
9	It is not reasonable for the Commission to order that ratepayers compensate
10	Ameren Missouri shareholders for avoiding generation-related earnings
11	opportunities while Ameren Missouri spends billions of dollars on
12	generation-related investments. ⁴⁶
13	Ameren Missouri did not avoid earnings opportunities because Ameren
14	Missouri has grown its gross and net rate base related to generation capacity
15	while reducing its MW of accredited capacity. ⁴⁷
16	• The Commission needs to adjust the earnings opportunity to prevent
17	"double recovery" since the earnings opportunity allows a double recovery
18	because MEEIA is not deferring generation, transmission, and distribution

⁴² File No. EO-2023-0136, Direct Testimony of J Luebbert (Public and Confidential), pages 12 line 19 to page 13 line 2.

File No. EO-2023-0136, Direct Testimony of Brad J. Fortson, page 6 line 5 to line 8.
 File No. EO-2023-0136, Direct Testimony of Sarah L. K. Lange, page 6 line 6 to line 8.

⁴⁵ File No. EO-2023-0136, Direct Testimony of Brad J. Fortson, page 7 line 17 to page 8 line 3.

⁴⁶ Direct Testimony of J Luebbert (Public and Confidential), page 12 line 19 – page 13 line 12 to 14.

⁴⁷ Direct Testimony of J Luebbert (Public and Confidential), page 12 line 19 to page 13 line 4 to 7.

1	plant, but MEEIA is allowing an earning opportunity to defer those
2	investments. ⁴⁸
3	Q. Please explain why it is reasonable for the Commission to allow Ameren
4	Missouri an earnings opportunity for investing in energy efficiency and demand response
5	A. As I have shown earlier in this testimony, the Commission's rules for
6	developing, implementing, and regulating energy efficiency and demand response programs,
7	and precedence supports the Company's approach to designing and developing the MEEIA
8	portfolio. Given this, then appropriate consideration should be given to the earnings opportunity
9	as Company witness Wills further explains in his rebuttal testimony. No argument given by
10	Staff or OPC above holds up when reviewing the Commission's rules and precedence under the
11	MEEIA statute.
12	Since EO should be considered here, the Company contemplates the foregone earnings
13	opportunity impact in the amended application:
14	"Multiplying the demand savings from this MEEIA application with the
15	annual \$/kW earnings from a CT, ⁴⁹ Ameren Missouri estimates the NPV ⁵⁰ of after-tax earnings
16	would be \$158 Million, or an annuity of \$64 Million over 3 years." ⁵¹
17	This estimate is notably conservative, indicating a \$64 million annual earnings
18	opportunity which would allow the Company's decision makers to value demand-side resources

⁴⁸ Direct Testimony of J Luebbert (Public and Confidential), page 12 line 19 – page 4 line 3 – line 11, and page 18 line 1 – line 11, and page 18 line 22 – page 19 line 5, and page 41 line 16 – page 42 line 2.

⁴⁹ CT = combustion turbine

 $^{^{50}}$ NPV = net present value

⁵¹ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application, pages 77 – 79

- 1 equally to supply-side. Furthermore, the benchmarking shown in the same application⁵²
- 2 confirms the reasonableness of this dollar figure, and the fairness of the \$56.2 million target
- 3 earnings⁵³ for the entire time period of the amended application. Company witnesses Wills will
- 4 further detail out foregone earnings, why this approach is appropriate and how it fits into the
- 5 broader framework with resource planning.

\$s (millions)

<u>PY</u>	EO	Target	EO - Max	<u>For</u>	egone EO
2025	\$	18.10	\$ 22.63	\$	64.00
2026	\$	18.79	\$ 23.49	\$	64.00
2027	\$	19.30	\$ 24.12	\$	64.00
Total	\$	56.19	\$ 70.24	\$	192.00

7 VII. THE PAST, CURRENT AND PROPOSED EM&V PROCESS IS 8 REASONABLE AND INCLUDES STAKEHOLDER INPUT

- Q. Both Staff and OPC seem to attack the EM&V process as a way to remove the foundation fully from future MEEIA portfolios. What did they present and why is it inaccurate?
- 12 A. The totality, intensity, and subjectivity of these arguments by both parties is 13 stunning, which in large part is why Mr. Graser's rebuttal testimony focuses on EM&V. I hit on 14 a few of their highlights here, and specifically discuss why the attack on EM&V is unsupported 15 and inappropriate.

⁵² File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), MEEIA 2025-2027 Amended Application, pages 79 – 80

⁵³ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), Revised Appendix N - Earnings Opportunity Calculator.

1 Staff witness Fortson explains why he believes that EM&V does not work and does not believe the process is independent.⁵⁴ 2 3 This is incorrect. 4 The EM&V process utilized by the Company is well-defined, starts before a program 5 year begins, includes numerous opportunities for stakeholders (including Staff) to opine throughout the lifecycle, and includes two levels of independence from the Company.⁵⁵ This 6 7 process is consistent with the Commission's rules. 8 The independent EM&V contractor takes input from all parties and executes on the plan 9 for any given year, including mid-year updates. Once the year ends, the contractor begins 10 finalizing evaluation reports, and this portion includes an opportunity for stakeholders to see 11 draft reports, meet to understand and discuss, submit comments for consideration, and receive 12 responses on those comments. A final report is submitted by the contractor and then the 13 independent auditor of the State soon after. 14 Even if a stakeholder such as Staff disagrees with any part of the process, they can then 15 file a change request with the Commission. In fact, this process has played out with Staff and the Company in 2021 for the PY20 evaluation reports⁵⁶ and led to an agreement on open 16 issues.⁵⁷ 17 18 To claim the process is not independent is unfounded, and undermines the work done 19 by all parties involved in the evaluation process. Mr. Fortson states that it is hard, if not

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impossible for EM&V to not be influenced by the utility.⁵⁸ He also explains why he believes

⁵⁴ File No. EO-2023-0136, Direct Testimony of Brad J. Fortson, page 6 line 5 to page 8 line 3.

⁵⁵ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), pages 53 – 62.

⁵⁶ File No. EO-2018-0211, Staff Change Request.

⁵⁷ File No. EO-2018-0211, Agreement in Lieu of Change Requests.

⁵⁸ File No. EO-2023-0136, Direct Testimony of Brad J. Fortson, page 6 lines 13 to 14.

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- 1 the calculation of net benefits is subjective. ⁵⁹ These unsupported assertions are evidently enough
- 2 for Staff to conclude that "...it has never been verified that the benefits ever really happened." 60
- The logic leads to an unreasonable conclusion.
- 4 For Staff's logic to be true, the following assumptions at minimum would have to exist:
- The independent EM&V program evaluator does not conduct independent analysis, or at the very least, will not act on it.
 - The independent state EM&V auditor does not conduct independent analysis and rubber stamps the EM&V program evaluator's analysis.
 - The utility has colluded with multiple parties in the process to ensure that the benefits that did not happen get counted anyway.

It is stunning to think that any of these three would exist, much less all three, much less others, in a process that has worked effectively, transparently, and in a manner in which all parties have influenced continuous improvement within it for over a decade. Staff's assertions regarding the alleged lack of independence – solely because the information and data needed to perform EM&V necessarily comes from the utility that is the one that is running the programs – frames EM&V as a totally intractable problem that, if followed through to the logical extension, would render energy efficiency and demand response anywhere in the country conducted by any utility as completely untenable. There is zero evidence presented by Staff of any inappropriate influence the Company has had on the EM&V process. Clearly other states do, and this state has, set up processes that create an appropriate level of independence in EM&V, along with opportunities for adequate review by all interested parties.

⁵⁹ File No. EO-2023-0136, Direct Testimony of Brad J. Fortson, page 6 lines 7 and 8.

⁶⁰ File No. EO-2023-0136, Direct Testimony of Brad J. Fortson, page 6 line 8.

1	Q. Can a MEEIA portfolio and related mechanisms be designed to be
2	beneficial to all customers in a customer class, regardless of whether the programs are
3	utilized by all customers?
4	A. Yes. Contrary to the belief of Staff witness Lange, ⁶¹ this can, has and will
5	continue to be accomplished in this state.
6	It is not easy to design, develop, implement, and execute on a MEEIA portfolio. This is
7	why one needs an experienced team, a well-established infrastructure of contractors, and the
8	compounding momentum from year to year, and cycle to cycle to ensure that customers and the
9	state receive the maximum benefits possible.
10	As designed historically and now, the Company has shown the portfolios are beneficial
11	to all customers, and all customers in a class regardless of whether they participate in the
12	MEEIA programs. These are an integral resource in the Company's preferred plan in the IRP.
13	Consider with this amended application:
14	• At the portfolio level – the TRC test (the specified preferred cost-effectiveness
15	test for the state of Missouri) shows a TRC of 1.6462 for this MEEIA 4 filing,
16	meaning the benefits delivered from the programs are 64% greater than their
17	costs.
18	At the sector level:
19	○ Income Eligible has a TRC of 1.23 ⁶³

⁶¹ File No. EO-2023-0136, Direct Testimony of Sarah L. K. Lange, page 6 lines 6 to 8.

⁶² File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), page 14 Table 1 – Portfolio Cost-effectiveness Summary (NPV).

⁶³ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), page 27 Table 3 – Income-Eligible Sector Cost-effectiveness Summary (NPV).

Rebuttal Testimony of Antonio M. Lozano

1	o Residential has a TRC of 1.52 ⁶⁴
2	o Business has a TRC of 2.26 ⁶⁵
3	○ Demand Response has a TRC of 1.51 ⁶⁶
4	• This collectively includes over \$303 million in net benefits ⁶⁷ to customers that
5	will be realized due to the successful implementation and execution of this
6	portfolio.
7	• At the rate class level – analysis the Company has completed and provided in
8	the amended application shows bill impacts for all customer rate classes
9	becoming a net positive (i.e., dropping below 0%, meaning bills are expected to
10	be lower than they otherwise would be without the programs) before 2029 with
11	those benefits extending out past 2040.68
12	Said more succinctly, the data shows this portfolio benefits all customers at the
13	portfolio, sector, and rate class levels. ⁶⁹
14	Moreover, the Commission also touched on this issue in the Evergy MEEIA 3 decision
15	(emphasis added below):

⁶⁴ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), page 35 Table 4 – Residential Sector Cost-effectiveness Summary (NPV).

⁶⁵ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), page 44 Table 5 – Business Sector Cost-effectiveness Summary (NPV).

⁶⁶ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), pages 48 – 49 Table 6 – Demand Response Cost-effectiveness Summary (NPV).

⁶⁷ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), page 14 Table 1 – Portfolio Cost-effectiveness.

⁶⁸ File No. EO-2023-0136, Amended and Supplemented Application to Approve DSIM and Demand-Side Management Portfolio and Plan, and Request for Variances (Public, Confidential and Highly Confidential), page 83 Figure 42 – Customer Bill Impacts.

⁶⁹ *Id.* at pages 6, 14–15, 81-83.

1	"The TRC test is a preferred cost-effectiveness test to evaluate demand
2	side programs. The TRC test shows whether a program's savings
3	outweigh its costs. It compares the sum of avoided utility costs and
4	avoided probable environmental compliance costs associated with a
5	program to the sum of all incremental costs of end-use measures that
6	are implemented due to the program. The TRC test, in part,
7	determines whether all customers in a customer class receive
8	benefits from a program. If a program scores one or greater, the
9	program's economic savings outweigh its costs and the program is cost-
10	effective, because money is saved economic benefits flow to all
11	customers regardless of participation." ⁷⁰
•	"Valuing avoided generation as the means to show benefits to all
13	customers overlooks the purpose of MEEIA, which is to encourage
14	energy efficiency. Utilities should be endeavoring to increase customer
15	participation in energy efficiency programs. While participating
16	customers save money on their bills and experience direct benefits, non-
17	participating customers will benefit from Evergy's MEEIA Cycle 3
18	because the programs will be cost-effective. Non-participating
19	customers benefit from cost-effective programs because cost-
20	effective programs save more money than they cost. Simply put, all
21	customers benefit, but participating customers benefit more." ⁷¹

 $^{^{70}}$ File No. EO-2019-0132, Amended Report and Order, Issued March 11, 2020, pages 21 – 22. 71 *Id. at* page 15.

1	While designing, implementing, and evaluating energy efficiency and demand response
2	programs is not easy, that is not a reason to make the jump to say it is not possible. Ou
3	programs are cost-effective at each and every level we examine. Moreover, the Commission
4	determined that non-participating customers benefit from cost-effective programs. ⁷²
5	Q. But has the Commission reviewed this statutory requirement?
6	A. Yes. Staff witness Mr. Fortson stated that this has not happened, ⁷³ but this is
7	incorrect. Not only has the Commission reviewed but has adjudicated it as demonstrated
8	by the quotes in the Evergy order I referenced above. ⁷⁴
9	Q. Are energy and demand savings coming from past and current MEEIA
10	Plans of the Company?
11	A. Yes. As has been laid out, the EM&V process in place is well-defined, starts
12	before a program year begins, includes numerous opportunities for stakeholders (including Staf
13	and OPC) to opine throughout the lifecycle, and includes two levels of independence from the
14	Company.
15	The first year savings shown for each finalized year of MEEIA 3 are: ⁷⁵
16	• 2019
17	\circ Energy = 206,825 MWhs
18	\circ Demand = 125.6 MWs

⁷² *Id.* at page 14, paragraph 40, pages 21-22, paragraph J.

⁷³ File No. EO-2023-0136, Direct Testimony of Brad J. Fortson, page 7 line 17 to page 8 line 3.

⁷⁴ File No. EO-2019-0132, Amended Report and Order, March 11, 2020, page 15.

⁷⁵ File No. EO-2018-0211, PY2019 Evaluation Reports, filed on June 22, 2020; PY 2020 Evaluation Reports, filed on June 11, 2021; PY 2021 Evaluation Reports, filed on June 12, 2022; PY 2022 Evaluation Reports, filed on June 12, 2023; 2023 results not final, Energy savings include DR, Demand savings are incremental, both energy and demand savings for 2019 and 2020 exclude MEEIA 2long lead projects.

1 2020 2 Energy = 286,337 MWhs 3 Demand = 103.8MWs2021 4 5 Energy = 309,532 MWhs Demand = 151.4 MWs6 7 2022 8 Energy = 156,918 MWhs 9 Demand = 60.8 MWsDr. Marke introduces "The Principal-Agent Problem: HVAC⁷⁶ 10 Q. 11 Contractors."⁷⁷ Is this a real and applicable concern in MEEIA and with the Company's 12 portfolios? 13 A. Absolutely not. 14 This eight page discussion is laid out as "...a situation where one person or entity (the 15 "principal") hires another person or entity (the "agent") to act on their behalf. 16 The problem arises due to potential conflicts of interest between the principal and the agent, usually stemming from different goals or information access."⁷⁸ 17 18 Dr. Marke does not support his assertion with evidence that this is the case in Missouri. 19 No data here speaks to the state of Missouri, or the Company's portfolios. It simply speaks to

⁷⁶ HVAC = heating, ventilation, and air conditioning

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the hypothetical.

⁷⁷ File No. EO-2023-0136, Direct Testimony of Geoff Marke, page 9 line 9 to page 16 line 26.

⁷⁸ File No. EO-2023-0136, Direct Testimony of Geoff Marke, page 9 lines 13 – 14.

1 The impact of introducing this could delay any possible continuity of programs and 2 could suppress the breadth and depth of their reach. If these were to happen, they would 3 assuredly have negative ramifications to our customers and the state. 4 Notice what Dr. Marke does in the opening paragraphs on this. He moves without delay from an abstract to a sure thing.⁷⁹ There are no data or structured problem solving connecting 5 6 these thoughts that moves the assumption from a hypothetical to – stop MEEIA now. 7 That cannot be the logical next step. 8 This is then backed up by seven pages of studies of which include no data, evidence, or 9 conclusions related to the state of Missouri or the Company. The argument can be summarized 10 as: 11 The HVAC industry is holistically corrupt, working to sell us what we do not 12 need, and their workers are severely under skilled, and thus, ineffective. 13 To reiterate, none of the five studies point to Missouri or the Company. To the extent 14 that issues were to arise now or in the future, they can and should be addressed within the process in place and described above. That is exactly why it is there. 15 16 It may be beneficial to look at a few analogies of other examples of real life concerns 17 that are playing out at various levels in our society today, and are backed up by a plethora of 18 data, but which I think we all could intuitively agree do not support the conclusion that these 19 otherwise beneficial activities should be foregone: 20 The growing use, including cheating, of Chat GPT and other artificial 21 intelligence ("AI") models by college and university students.⁸⁰

 79 File No. EO-2023-0136, Direct Testimony of Geoff Marke, page 9 lines 16-17.

⁸⁰ See "ChatGPT Cheating Statistics & Impact on Education (2024)," Nerdynav, https://nerdynav.com/chatgpt-cheating-statistics/

1	• Concussions in sports, and the impacts of them. ⁸¹
2	• Internet crimes, especially targeting those who are >60.82
3	These are all real concerns, backed up by real data, playing out in real ways in different
4	parts of our country. If we were to take the same thought process applied in the principal-agent
5	problem testimony, does this mean we should get rid of Chat GPT and related AI models?
6	Simply do away with sports? And cut off the internet for everyone once they reach 60?
7	That cannot be the way to proceed here.
8	There are clear benefits, even and maybe especially at the college and university level
9	for AI models of all kinds. The benefits of sports at all levels, ages and types are commonly
10	accepted. And yes, the internet has risks and downsides. It absolutely has upsides in how it has
11	changed and benefited the lives of individuals, including those 60 and over.
12	It also does not mean we should ignore it. Having sounds processes with appropriate
13	controls in place is the right balance to review any potential issues known today and adjust
14	accordingly and do the same for those yet to come.
15	VIII. <u>CONCLUSION</u>
16	Q. Does this conclude your rebuttal testimony?
17	A. Yes, it does.

⁸¹ See "Concussions Facts and Statistics", University of Pittsburgh Medical Center, https://www.upmc.com/services/sports-medicine/services/concussion/about/facts-statistics

82 See "Federal Bureau of Investigation Plan Formation Pl 82 See "Federal Bureau of Investigation: Elder Fraud https://www.ic3.gov/Media/PDF/AnnualReport/2022_IC3ElderFraudReport.pdf Report 2022," FBI,

BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI

In the Matter of Union Electric Company)	
d/b/a Ameren Missouri's 4 th Filing to)	
Implement Regulatory Changes in Furtherance)	File No. EO-2023-0136
of Energy Efficiency as Allowed by MEEIA.)	

AFFIDAVIT OF ANTONIO LOZANO

STATE OF MISSOURI)
) ss
CITY OF ST. LOUIS)

Antonio Lozano, being first duly sworn on his oath, states:

My name is Antonio Lozano, and hereby declare on oath that I am of sound mind and lawful age; that I have prepared the foregoing *Rebuttal Testimony*; and further, under the penalty of perjury, that the same is true and correct to the best of my knowledge and belief.

Antonio Lozano

Sworn to me this _25_ day of April 2024.