Exhibit No.: ______________
Issue(s): Challenges Before the Commission/ Demand Side Response Programs/Business Programs/ Residential Programs/Pilot Programs/Low-Income Programs/Throughput Disincentive/Earnings Opportunity/EM&V/Alternative Path Forward
Witness/Type of Exhibit: Marke/Rebuttal
Sponsoring Party: Public Counsel
Case No.: EO-2023-0136

REBUTTAL TESTIMONY

OF

GEOFF MARKE

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY D/B/A AMEREN MISSOURI

CASE NO. EO-2023-0136

April 26, 2024

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D/B/A AMEREN MISSOURI

CASE NO. EO-2023-0136

I. INTRODUCTION

Q. Please state your name, title and business address.

A. Geoff Marke, PhD, Chief Economist, Office of the Public Counsel (OPC or Public Counsel), P.O. Box 2230, Jefferson City, Missouri 65102.

Q. Are you the same Dr. Marke that filed direct testimony in Case No. EO-2023-0136?

A. I am.

Q. What is the purpose of your rebuttal testimony?

A. My purpose is three-fold with three different sets of recommendations. First, I will provide an overall summary of the various obstacles, challenges and changes that currently impact the likelihood that Ameren Missouri's MEEIA portfolio will accomplish what it claims it will accomplish. Within this section, I make the argument that the Commission should not approve Ameren Missouri's proposed application full stop.

Second, I will be responding to the various programs and mechanisms within Ameren Missouri's application. Within this section, I provide recommended adjustments under the premise that the Commission will approve an application despite the reasons I articulated in section I. The recommendations in section II provide for a better program design and an application that is more aligned with the public interest.

In the third and final section, I discuss an alternative path forward that meets the statutory requirements set out by the MEEIA statute, § 393.1075 RSMo. This recommendation provides for a reasonable earnings opportunity for Ameren Missouri and outlines a path forward that can be applied to the rest of our investor-owned utilities. It is an attempt to evolve MEEIA to be more cost-effective and aligned with the goal of supporting only cost-effective measures for all customers regardless of participation.[1]

My silence in regard to any issue should not be construed as an endorsement of Ameren Missouri's position.

II. Challenges and Obstacles to MEEIA Cycle IV

Q. Can you please summarize the many challenges and obstacles that currently plague Ameren Missouri's MEEIA Cycle IV portfolio?

A. Yes. I will briefly restate both the challenges I raised in my direct testimony as well as those I encountered while reviewing both Staff's direct testimony and Ameren Missouri's application. They are as follows:

Challenge 1: Naturally occurring energy efficiency adoption is rapidly increasing due to decades of marketing, increased appliance standards, and municipal building code requirements.

Challenge 2: Ex Post evaluations of energy efficiency programs do not account for operational failures or obstructions; thus overstating "deemed" energy savings.

Challenge 3: Empirical evidence suggests that pricing electricity to more align with the true cost of service will produce energy and demand savings that dwarf any energy and demand savings achieved from a portfolio of MEEIA programs.

Challenge 4: Ex Post evaluations do not take into account any "rebound effect" that occurs following the installation of energy efficiency measures; thus overstating the savings achieved and leading to higher bills for customers.

[1] § 393.1075.4 RSMo.

Challenge 5: The principal-agent problem inherent with energy efficiency contractors leads to overstated energy and demand savings assumptions and thus higher bills for customers.

Challenge 6: Free market alternatives exist that do not require ratepayer subsidies for business demand response programs. The failure to acknowledge this results in blatant market failure and wasted money.

Challenge 7: Non-profit alternatives whose overhead administrative costs are capped at 20% or lower exist for most of the income-eligible programs. This stands in stark contrast with the historical performance of Ameren Missouri's income-eligible programs.

Challenge 8: Federal funding for weatherization represents a more cost-effective alternative than Ameren Missouri's single-family income-eligible program.

Challenge 9: If Ameren Missouri's Cycle IV application is approved, both Ameren Missouri and the Missouri Division of Energy will be simultaneously rolling out subsidized energy efficiency programs (supported by ratepayer funding for Ameren Missouri and taxpayer funding for the Division of Energy). Both entities will effectively cut checks from other people's money to hire third-party contractors and evaluators to implement their programs. The difference is that Ameren Missouri demands a 19% return for itself on its ratepayers' investment, lost revenues associated with those measures, and on the amount it spends on administering the programs (the Division of Energy cannot allocate more than 20% of its budget to administrative overhead).

Challenge 10: Ameren Missouri's proposed throughput disincentive mechanism is overly complicated and made inaccurate due to the introduction of time-of-use rates.

Challenge 11: Ameren Missouri cannot identify any deferred investment directly tied to its MEEIA spend. Additionally, enabling statutory language (PISA) incentivizes Ameren Missouri to build which has played out in real time given the volume of applications for new solar and natural gas generation.

Challenge 12: Ameren Missouri's Technical Resource Manual needs to be updated to account for shorter lifespans associated with new energy efficiency equipment and failure of participants to properly maintain their equipment.[2]

Q. Is this an exhaustive list of the challenges associated with Ameren Missouri's MEEIA Cycle IV Application?

A. No. More challenges are articulated at the program level in this rebuttal testimony. Additionally, Staff has raised issues in its direct testimony that I have not covered. I also recommend the Commission read OPC witness Lena Mantle's rebuttal testimony.

III. Demand Response

<u>Business DR Problem</u>: Market alternative(s) exists that does not require ratepayer subsidies.

<u>Residential DR Problem:</u> Full deployment of AMI make continued rebates for new thermostats redundant.

Q. What are Demand Response ("DR") programs?

A. The business demand response program pays large commercial and industrial customers to curtail their power usage during select peak (or high energy usage) periods.

[2] Wolfe, R. (2024) The Lifespan of Large Appliances is Shrinking. *The Wall Street Journal*. https://www.wsj.com/personal-finance/the-lifespan-of-large-appliances-is-shrinking-e5fb205b

The residential demand response program utilizes “smart” thermostats to temporarily control and decrease residential customers’ HVAC units during select peak (or high energy usage) periods.

Paying customers to curtail load during peak hours may result in overall savings to all customers in the form of lower fuel prices and, theoretically, deferred peaker power plant investments in the future.[3]

Q. What is Ameren Missouri proposing for Demand Response programs?

A. Ameren Missouri proposes a budget of $36 million over a three-year period for the business DR program, with a goal of obtaining 180 MW of savings. This will be accomplished through “called events” in which participants will be paid to curtail their load for a predetermined period. Notably, the Company will incur many of these savings from customers who have historically “opted-out” of paying for MEEIA. That is, commercial and industrial customers who do not pay a MEEIA subsidy due to their unique size.

Ameren Missouri proposes a budget of $27 million over a three-year period for the residential DR program, with a goal of obtaining 79 MW of savings. The program intends to rely on historically rebated thermostats, new rebated thermostats, and potential other devices as appropriate (e.g., water heaters and EV chargers). Notably, the Company plans to leverage automated meter infrastructure (“AMI”) data on customer usage for targeted marketing.

Q. Are there other variables at play with demand response that need to be addressed?

A. Yes. After a lengthy prohibition on the participation in demand response in Missouri of third-party aggregators of retail choice (“ARCs”), the Commission voted to partially affirmatively lift the ban on ARC participation in Missouri, effective January 1st of 2024.

[3] Please see the Rebuttal Testimony of Ms. Lena Mantle, witness for the OPC, for a discussion of how Ameren Missouri’s FAC complicates the analysis of whether benefits exist as a result of Ameren Missouri’s MEEIA programs.

This MEEIA docket represents the first opportunity in which a free-market alternative should supersede a program (business demand response) that has historically been controlled by a natural monopoly.

Q. What do you see as the role of utility regulation when a free-market option is available?

A. In describing my job to elected officials or the public at large I often begin by stating that I am paid to be skeptical. For example, much of my MEEIA testimony expounds on my skepticism of this application being in the best interest of all ratepayers. Less often am I tasked with emphasizing why the Missouri Public Service Commission, the Office of the Public Counsel, and all the attendant activities associated with our jobs are necessary.

Economic regulation of natural utility monopolies is necessary because of the inherent market imperfections that result from their existence. Economic regulation serves as a proxy for the free market and is necessary when there is no or very limited competition. Absent regulatory oversight, utilities would exploit their monopolistic position and the public at large would be worse off.

But natural monopolies' positions are not necessarily an inevitable, absolute outcome that cannot be modified or even absolved under emerging technological and market conditions.

In fact, history is full of examples of former natural monopolies that have deregulated and consumer welfare has been infinitely better off as a result (e.g., airline industry, telecom, railroads, large trucking, etc.).

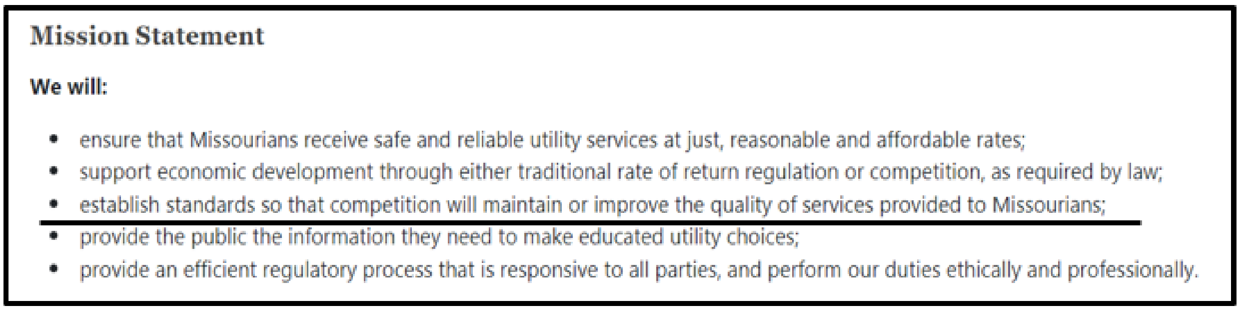
To quote the father of deregulation, economist Alfred Kahn:

> "Whenever competition is feasible it is, for all its imperfections, superior to regulation as a means of serving the public interest."

Simply put, ARCs provide options that allow for customer choice. This competitive environment results in increased consumer welfare that comes with the attendant discipline necessary for a firm to survive in a competitive market.

Basic economic theory demonstrates that when firms have to compete for customers, it leads to lower prices, higher quality goods and services, greater variety, and more innovation. The Missouri Public Service Commission has historically recognized this fact, so much so that competition is cited in the Commission's motto, as shown in Figure 1.

<u>Figure 1: Snippet of Missouri Public Service Commission's "Mission Statement"</u> [4]


Mission Statement

We will:

- ensure that Missourians receive safe and reliable utility services at just, reasonable and affordable rates;
- support economic development through either traditional rate of return regulation or competition, as required by law;
- establish standards so that competition will maintain or improve the quality of services provided to Missourians;
- provide the public the information they need to make educated utility choices;
- provide an efficient regulatory process that is responsive to all parties, and perform our duties ethically and professionally.

Q. How would competition in demand response benefit the Missouri public?

A. Competitive ARC's operate in most U.S. states today at no direct cost to ratepayers. Voltus, CPower, or some other ARC do not require ratepayer funds to operate. In this MEEIA proposal though, Ameren Missouri requests that the Commission allow it to continue to fill that free market role through direct subsidies from captive ratepayers.

Q. Given the current market make-up in MISO, can you guarantee that Voltus, CPower, or some other entity would step up and fill the void that Ameren Missouri provides today with demand response?

A. I can't. Because no ARC was allowed to intervene in this matter, they cannot tell us one way or the other. I can only surmise that was their intent based on their multi-year involvement in the Commission docket(s) that ultimately lead to the lifting of the prohibition of ARC's in Missouri and their attempted intervention in this docket.

[4] Missouri Public Service Commission (2024) About the PSC. https://psc.mo.gov/General/About_The_PSC

Q. What was the Commission's Staff's position on demand response programs in direct testimony?

A. Staff witness Jordan Hull filed testimony on the topic but did not take a formal position. He did acknowledge that some business demand response customers may elect to work with a private aggregator as opposed to Ameren Missouri. Mr. Hull concluded his testimony by explaining changes to the MISO planning resource auction ("PRA") which amount to highlighting the increased importance that demand response can play in a resource-constrained future.

Q. Do you agree with Mr. Hull?

A. Not in total. I disagree that Ameren Missouri may lose customers to competing ARCs.

Put bluntly, if the Commission supports a ratepayer-subsidized business demand response program there is no incentive for ARC's to participate in Missouri. It's extremely tough to make money against a subsidized competitor—and frankly not worth it when other neighboring states allow for even playing fields.

As for the rest of Mr. Hull's testimony, I take no issue with his informative description on the MISO PRA changes, other than to note that MISO is required to implement FERC Order 2222[5] in the near future, which will necessarily allow for more market alternative options.

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[5] Issued in 2020 by the Federal Energy Regulatory Commission (FERC), Order 2222 aims to improve how distributed energy resources (DERs) participate in the electricity market. DERs include, but are not limited to: rooftop solar panels, battery storage systems, and demand response aggregators.

FERC Order 2222 works by:

- Opening wholesale markets to DER aggregations: Traditionally, wholesale electricity markets only allowed participation from large power plants. Order 2222 lets aggregators, which pool power from many DERs, compete in these markets alongside traditional sources.
- Removing barriers for DER participation: By setting standards for areas like minimum size and location requirements, the order makes it easier for DERs to contribute to the grid.

Overall, Order 2222 is supposed to:

- Increase competition: More players in the market could drive down electricity costs for consumers.
- Boost grid flexibility and resilience: DERs can provide power during peak times or emergencies, making the grid more stable.

I struggle to see how Ameren Missouri's ratepayer subsidized demand response program can operate under the FERC Order 2222 format, but time will tell.

Q. You have spoken at length on the business demand response side, do you have any opinion as it pertains to the residential demand response program?

A. I do. I believe the residential demand response program has been successful but that the investment is largely redundant now that ratepayers have invested over one billion dollars in AMI hardware, the attendant software, and an Ameren-specific private 4G network. The residential demand response program pays customers to allow Ameren Missouri to take control of their appliances and lower their electric usage during peak hours. However, customers are already paying the cost and the attendant profit for AMI meters, which allow for the ability to have time-of-use rates, where they can participate in plans that allow them to save money by adjusting their energy usage to curb peak demand.

We now have two nearly identical investments that accomplish the same thing. Why pay for both? And why reward the utility for what effectively amounts to double-dipping? At a minimum the EM&V associated with determining attribution associated with this program will likely be very contentious, if the Commission agrees to support the residential DR program.

Q. What are your specific recommendations?

A. I can't definitively state today what Voltus, CPower, or any other ARC would do given the current MISO market if Ameren Missouri's demand response program was not approved. As such, I reluctantly support the Ameren Missouri Business Demand Response program as it is the most cost-effective program in the proposed portfolio. Stated differently, if the choice is between no demand response or subsidized demand response, I will choose the latter. The real tragedy here is the lost (or at least delayed) opportunity to encourage competition and as a result the public interest is worse off.

- Encourage innovation: Easier participation in the market could incentivize further development in DER technologies.

My primary recommendation for the residential demand response program is to cease it and focus on pricing electricity to reflect cost causation more accurately. My secondary recommendation is to continue supporting the existing investments (already rebated thermostats) and encourage a "bring your own thermostat" ("BYOB") approach into the program for interested customers. *But*, I do not recommend continuing to rebate thermostats under the premise that we already have redundant investment in place. In this manner, the secondary recommendation serves as a complement to the very large but underutilized AMI investment.

IV. Business Programs

<u>Business Program Problems</u>: *Programs' design negates progress made during extensions.*

Contractor quality control issues are a concern.

Tax rebates and STL Building Standards negate attribution.

Unclear what $20 million in AMI smart meter data accomplishes.

Q. What is Ameren Missouri proposing in regards to its business programs?

A. Ameren Missouri is proposing five to possibly eight separate business programs at a cost of $133 million over a three-year period.

Q. Can you briefly describe those programs?

A. I will attempt to. Table 1 attempts to breaks down each program with a brief description, the budgeted amount, and targeted demand and energy savings.

Table 1: Breakdown of Ameren Missouri's Proposed Business Programs and sub-programs

Program	Budget	Energy Goal	Demand Goal	Focus
Custom	$45 M	141 GWh	53 MW	Measures outside Standard offering (specialized HVAC, Lighting, etc.)
Standard • Agriculture • Schools	$56 M • $2 M • $5 M	298 GWh • 8 GWh • 19 GWh	61 MW • 2 MW • 5 MW	Traditional rebated measures (HVAC Lighting, etc.)
Midstream	$11 M	9 GWh	8 MW	Measures purchased at the wholesale point of sale
Retro • Smart Meter Data	$4 M • $5 M	18 GWh • 20 GWh	8 MW • 6 MW	Focus on upgrading existing buildings also leverage AMI data
Small Business	$4 M	19 GWh	4 MW	Direct install measures to small commercial

Q. Are these programs consistent with previous applications?

A. In part. The inclusion of smart meter data as a complementary component to the retro business program is new. Additionally, a narrow focus on agriculture and schools is also new. Finally, the midstream program that attempts to focus on customers at the wholesale level (cheaper measures) is a new program.

Q. Above and beyond your objections to the filed portfolio, what specific concerns do you have regarding the suite of Business Programs?

A. I have several.

For instance, the current draft does not cap the amount of incentives that can be allocated for lighting. The previous one-year extensions went to great lengths to minimize free ridership with the absence of a full EM&V. One of those critical components was a cap on lighting expenditures for Ameren Missouri to reach its target. For example, in the current one-year extension at least 45% of the business programs expenditures need to be devoted to non-lighting measures or the Company will incur a financial penalty.

Q. Why has lighting been limited in the extensions?

A. For two primary reasons, first, the federal Energy Independence and Security Act ("EISA") lighting standards have increased the efficiency of lighting to such an extent as to inundate the market with efficient lighting. In short, rebates are not necessary to move the market because the market has been mandated to move.

The second reason is to encourage building shell and heating/cooling measures that represent larger energy and demand savings.

Moving forward, to the extent that any subsidized business programs are approved, the Commission would be well served by continuing the negotiated trend set out during the previous one-year extensions. Absent a cap on business lighting expenditures these programs will likely be entirely driven by lighting sales because they are considered "low hanging" energy efficiency measures.

Q. Won't EM&V solve for that concern?

A. The issue of lighting has historically been heavily litigated and will certainly be again if the Commission is silent on this issue in this case. The original MEEIA 1 cycle was driven entirely on CFL lighting—an inferior lightbulb that became technologically obsolete and hazardous to one's health (it contains mercury). Ameren Missouri claimed windfall profits from CFL lightbulbs that cannot even be found on the market today. To the extent that the Commission approves any business demand-side management programs, I implore the Commission to limit any lighting measure expenditures to 25% of the business budget in year 1; 20% in year 2; and, finally, 15% in year 3. Any subsequent MEEIA filings should omit business lighting in its entirety.

Let me stress that this is a very generous outcome for Ameren Missouri as a strong case can be made that lighting should be omitted in its entirety from this portfolio. Ratepayers should not be subsidizing measures that would naturally occur. Otherwise we are just heavily subsidizing lighting contractors.

Q. Are the concerns you raised in your direct testimony about the principal-agent problem with contractors, the generous tax incentives for energy efficiency upgrades, and select city and county building code standards applicable to Ameren Missouri's suite of business programs?

A. Yes. Although not as pronounced, the principal-agent problem surrounding contractors applies to commercial and industrial buildings, just as it does to residential homes.

Federal tax breaks available to businesses also far exceed the rebates Ameren Missouri is making available to commercial and industrial customers, calling into question proper attribution. Finally, as stated in my direct testimony, beginning in 2025, the City of St. Louis and St. Louis County have the power to levy financial fines on buildings of a certain size that do not meet strong energy efficiency levels. All three of these factors should have an impact on the attribution that Ameren Missouri can claim and will likely result in a contentious EM&V process.

Q. Do you have any additional concerns?

A. It is unclear to me what ratepayers are getting out of an allocated $20 million in submeter data. It has been my understanding that ratepayers have and will continue to pay for interval data. I agree that this information should be leveraged to the extent possible, but the interplay of that in this portfolio is not clear. As such, I reserve the right to amend my testimony based on discovery that I will issue before surrebuttal.

Q. Please restate your recommendations for the Commission on these programs if they elect to approve some manner of MEEIA business programs.

A. My primary recommendation is to cap the expenditures on lighting at 25% in year 1, 20% in year 2, and 15% in year 3 of the overall business spend or eliminate lighting in its entirety. The market has moved. We would be better served by attempting to control for heating and cooling measures that will have more of a pronounced impact on minimizing fuel costs from likely volatile market prices.

Further recommendations center around net-to-gross ratios, which I will discuss in the EM&V section of my testimony. Whether the EM&V process is prospective or retrospective—it will almost certainly be contentious. I have articulated my concerns about redundancy, attribution, and opportunity costs in this testimony and in my direct testimony. I believe it is appropriate to hit the pause button as it pertains to business programs until a more cost-effective statewide program can be introduced in the future.

V. Residential Programs

Residential Program Problems: Whole Home New Construction should be removed
EE Kits should be removed
Education Programs should be removed
PAYS should be updated w/ FASTPASS & Stacking Option
Increased Marketing on Filter Removal & Real Estate

Q. What is Ameren Missouri proposing in regards to its residential programs?

A. Ameren Missouri is proposing five to possibly eight separate business programs at a cost of $73.5 million over a three-year period.

Q. Can you briefly describe those programs?

A. I will attempt to. Table 2 attempts to breaks down each program with a brief description, the budgeted amount, and targeted demand and energy savings.

Table 2: Breakdown of Ameren Missouri's Proposed Residential

Program	Budget	Energy Goal	Demand Goal	Focus
Efficient Products	$14M	31 GWh	13 MW	Variety of measures
Education	$3M	-	-	Customer Awareness
Heating & Cooling	$33M	80 GWh	47 MW	HVACs & Heat Pumps
Multi-Family MKT Rate	$10M	30 GWh	8 MW	Education/incentives for Landlords and tenants
Efficient Kits	$1M	5 GWh	-	School kits for kids
New Construction	$3M	2 GWh	1 MW	New EnergyStar Homes
PAYS	$9M	11 GWh	5 MW	Whole Home Audit/Financing

Q. What is your position regarding the efficient products program?

A. I have no concerns above and beyond my overall concerns around the entire MEEIA portfolio. To the extent the Commission approves this program I have no specific recommendations.

Q. What is your position regarding the education program?

A. It should be removed and the money allocated to it should be reallocated towards the PAYS program. The idea that some products are more efficient than others is no longer a new and novel idea to the public at large. There is an abundant amount of information available to the public at large on this issue. There are also no energy or demand savings associated with this program. To the extent the Commission approves any residential program the funds associated with this program should be redirected either to another residential program (I recommend PAYS) or should be removed from the budget entirely.

Q. Ameren Missouri recommended that one of its educational channels be devoted to real estate agents. Would you also recommend that educational program be removed?

A. Yes. I think Ameren Missouri should market PAYS and its other energy efficiency ("EE") programs to new buyers but that is a different bucket of funding from this proposal from my perspective. I strongly believe the most likely opportunity (outside of failure of said appliance) that someone will consider a large capital energy efficiency investment is when they are considering buying a new home. Ameren Missouri would do well to target home inspectors and make energy audits as common as checking for radon in the State. I have been saying this for years but have failed to see any movement on this untapped potential.

Q Are there any educational activities that are worth emphasizing?

A. Yes. Stressing to customers that they need to change their air filters. The U.S. Department of Energy estimates that dirty filters raise an air conditioner's energy consumption by 5% to 15%.[6] I should note that to date, EM&V has not taken that adjustment into account which means, again, that MEEIA estimated savings are likely overstated. I do believe this education can be done via bill inserts and other traditional outreach mediums and does not require the amount of money that is currently allocated for the education program.

Q. What is your position regarding the heating and cooling program?

A. I have grave concerns surrounding the principal-agent challenge articulated in my direct testimony as it pertains to this program.

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[6] US Department of Energy (2024) Maintaining Your Air Conditioner. https://www.energy.gov/energysaver/maintaining-your-air-conditioner

To the extent the Commission approves the heating and cooling program, I strongly recommend that Ameren Missouri suggest to its customers that they "stack" PAYS's on-tariff financing options with any rebate they receive from the heating and cooling program. Strategic and purposeful layering of the PAYS tariff option alongside the rebate offering will enable greater efficiency gain opportunities for customers, who may otherwise not be able to afford a more efficient option. Simply put, better coordination between programs should minimize free ridership and ensure greater savings for customers. Especially in the case of stacking PAYS and the heating and cooling program, the customer protections in place with PAYS also ensure that a heating and cooling unit is right-sized and the whole home is audited to ensure building shell measures are installed, where applicable. Absent that, customers could have a new EnergyStar HVAC unit functioning at less than efficient levels due to improperly sealed air ducts and/or poor insulation. The complexity involved in ensuring energy and demand savings actually materialize for such large capital investments necessitates a holistic approach to heating and cooling that is absent in the standalone heating and cooling program today. As a result, I am confident that energy and demand savings have been overstated in the past. Consequently, this has resulted in ratepayers overpaying for MEEIA.

Q. What is your position regarding the multi-family market rate program?

A. It should be removed, and the money allocated to it should be reallocated towards the PAYS program. This is a goodwill program that is overly expensive. The Commission and stakeholders need to ask themselves: what problem are we trying to solve for? Ameren Missouri is already a natural monopoly without competition, if it wants the goodwill associated with the promotion of energy efficiency then it should focus on meaningful savings that reduce all customers bills. The multi-family market rate program merely increases them.

Q. What is your position regarding the New Construction program?

A. It should be removed and the money allocated to it should be reallocated towards the PAYS program. This program has been attempted in previous MEEIA iterations across multiple utilities. The result has been large free ridership driven by home developers that specialize in EnergyStar constructed homes. I highly recommend that we do not throw money at actions that would naturally occur in the market.

Q. What is your position regarding the efficient kits program?

A. It should be removed and the money allocated to it should be reallocated towards the PAYS program. This program was removed during the negotiated one-year extensions and it should remain that way. The kits are expensive "feel good" items that the Company gives out for free and includes the following items:

- High-efficiency shower heads;
- Kitchen faucet aerators;
- Bathroom faucet aerators;
- ENERGY STAR® LED night lights;
- Tier 1 Advanced Power Strips

To the extent these items are actually installed is debatable. The finite amount of ratepayer funds that are being directed through MEEIA can be better spent by attempting to achieve greater energy savings in the more robust programs.

Q. What is your position regarding the PAYS program?

A. I strongly support it.

PAYS has admittedly struggled since its inception due to a variety of factors including but not limited to:

- The program was launching during the COVID outbreak;
- Ameren Missouri's PAYS webpage containing incorrect contact numbers; and

- Customer interest exceeding the amount of auditors available, resulting in prolonged delays.

However, the program has shown improvements and modifications have been made based on lessons learned and Ameren Missouri's persistence. Still, more can and must be done. Simply put, if demand-side management is going to work in Missouri now that lighting standards have phased out, PAYS is the path forward. If not, I struggle to see how MEEIA programs (on the residential side) can be justified.

Above and beyond the stacking of heating and cooling rebates with the PAYS tariffed option at the point of sale, and the additional $7 million in allocated funding from the programs mentioned earlier, I recommend the program be modified to include a FastTrack HVAC PAYS option, which is described in detail in Schedule GM-R-1.

Q. What is the FastTrack HVAC PAYS option?

A. The overwhelming majority of HVAC systems are replaced when those units fail. Although there should be many factors that go into selecting the right replacement, most customers find themselves in a stressful situation where a replacement unit needs to be installed immediately. Getting multiple quotes or shopping around is not a luxury available for most customers, especially if they have to stay at a friend or relative's home or a nearby hotel because they cannot stay in their homes that do not have cooling and the temperature has reached one hundred degrees.

Speaking from experience, this very same circumstance happened to my family and me this summer. I had to make suboptimal financial decisions because the health of my family was at stake.

The FastTrack concept is designed to help customers in that very situation—the point of failure moment—by easing the financial impact and ensuring energy efficient options are prioritized for long-lasting energy and demand savings. I encourage stakeholders and the Commission to review Schedule GM-R-1, which is a document drafted by EEtility, the

Missouri State PAYS implementor, who I challenged with finding a solution to the "replace on failure" option that plagues our heating and cooling programs.

VI. Pilot Programs

<u>Pilot Program Problems</u>: No concerns

Q. What is Ameren Missouri proposing in regards to pilot programs?

A. Ameren Missouri is requesting $11.05 million in funding for potential pilot program funding. The application provides ten potential pilot programs for consideration, but none of the programs have been confirmed. In effect, Ameren Missouri is proposing to adopt a process similar to previous MEEIA iterations where stakeholders convene and select specific pilot programs for consideration.

On a related note, many (most) of these suggested pilot programs have been attempted in some manner either by Ameren Missouri or other utilities with limited or no success. But to the extent that a MEEIA portfolio is approved, I am not opposed to the pilot program process that Ameren Missouri has articulated.

Q. Do you have any recommendations regarding the pilot programs?

A. I continue to maintain that Ameren Missouri should move forward with an abridged demand-side management offering until market parameters and program design changes occur. To the extent that the Commission approves Ameren Missouri's MEEIA application as proposed, or select parts of it, I take no issue with what Ameren Missouri has drafted for its pilot program format and will likely have additional suggestions as to the specific programs moving forward.

VII. Income Eligible Programs

Single-Family Income Eligible Problem:

Non-Profit alternative exists that does not require ratepayer subsidies.

Multi-Family Income Eligible Problem:

Concerns surrounding administrative costs and consumer protections.

Business Social Service Income Eligible Problem:

No concern other than costs and the widening lens of participants.

Verification of MEEIA surcharge exemption for income-eligible customers:

No concern

Q. Why are you calling low-income programs "income eligible" programs?

A. Because it is less stigmatizing and more accurate. Many more customers are eligible for these programs than people realize. For example, the average Missouri state employee salary in 2024 according to ZipRecuriter is $49,886.[7] If that employee was the sole breadwinner in a family of three they would be eligible for the low-income weatherization assistance program because they make under 200% of the federal poverty line ($51,640). Calling a program low-income is open to interpretation (is low income 100% of the federal poverty level? 150%? 200%?) and the various program parameters administered by the State can attest to that. Framing these programs as income-eligible should minimize the stigma and hopefully allow these programs to be fully utilized.

[7] ZipRecruiter (2024) Government Employee Salary in Missouri https://www.ziprecruiter.com/Salaries/Government-Employee-Salary--in-Missouri#:~:text=While%20ZipRecruiter%20is%20seeing%20salaries,making%20%2487%2C958%20annually%20in%20Missouri.

Q. What are income-eligible programs in the context of MEEIA?

A. Income eligible MEEIA programs have gone through several different revisions over the years. The current manifestation is the most inclusive and includes social service and various non-profit entities beyond single and multi-family dwellings.

Income-eligible programs do not need to be cost effective per the MEEIA statute.[8] This results in a bit of a mixed blessing for this cohort. On the one hand, it guarantees (or at least historically has guaranteed) that there is at least some amount of money being allocated to customers that are largely priced out of deeper energy efficiency opportunities. However, this has historically been a very small percentage of an overall budget due in part to the fact that Ameren Missouri does not readily gain deep energy and demand savings from supporting these income-eligible programs like it would likely find in programs targeted toward more affluent and/or larger energy intensive customers. As such, income-eligible programs within a MEEIA context attempt to solve for the problem of inclusivity, but often this comes at the expense of a larger budget and fewer energy and demand savings.

Q. What is Ameren Missouri proposing for income-eligible programs in this proposal?

A. A very robust suite of programs totaling $71 million or roughly 19% of the total program spend. Specifically, these programs are:

<u>The Single-Family Program:</u> Proposes a budget of $30 million dollars over a three-year period, with a goal of obtaining 68 GWh of energy savings. This will be accomplished by focusing on eligible single-family detached houses, duplexes, and mobile homes. Per Ameren Missouri's application it will be implemented by:

> A not-for-profit organization, governmental body, entity representing residential customers served by the Company, or through a Company-sponsored event.[9]

<u>The Multi-Family Program:</u> Proposes a budget of $37 million dollars over a three-year period, with a goal of obtaining 61 GWh of energy savings. This will be accomplished by

[8] § 393.1075.4 RSMo.
[9] Ameren Missouri 2025-2027 MEEIA Plan (Revised) Page 22

focusing on a one-stop shop approach to encourage property owners to move beyond immediate simple installation measures (e.g., light bulbs) to deeper saving measures (e.g., HVACs).

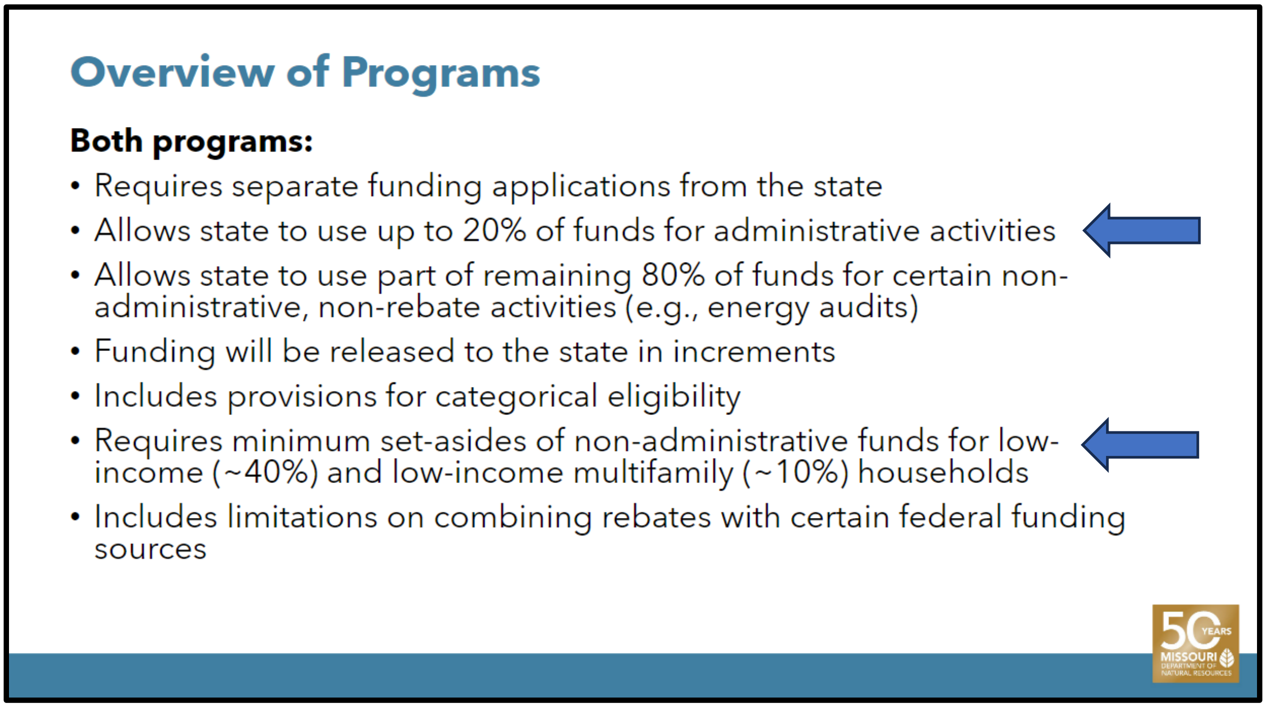
The Business Social Services Program: Proposes a budget of $4 million dollars over a three-year period, with a goal of obtaining 5 GWh of energy savings. This will be accomplished by promoting a streamlined program process with no-cost and/or low-cost project opportunities aimed at public social services such as food banks, food pantries, homeless shelters, employment services, job banks, etc.

Q. Are there other variables at play with income-eligible MEEIA programs that need to be addressed?

A. Yes. Chief among them is the large amount of federal funding being allocated to the State of Missouri for the low-income weatherization assistance program ("LIWAP") and additional funding earmarked for low- and moderate-income households through the Inflation Reduction Act ("IRA"). This large infusion of capital, which puts no additional burden on ratepayer's bills, is accomplishing the very same objective, as Ameren Missouri's income-eligible MEEIA programs.

Importantly, the $150 million in IRA funding that has been allocated to the State of Missouri comes with several important parameters. First, that a minimum of 40% of the funding be set aside to go to low and/or moderate-income households and **that administrative overhead be capped at 20%**. That means $120 million of the $150 million must be spent on actual energy efficiency measures. This can be seen in Figure 2 which was taken from the Missouri Division of Energy's Inflation Reduction Act Home Energy Rebates Public Meeting held on April 16, 2024.

Figure 2: Missouri IRA Funding Parameters (emphasis added)[10]



If the State of Missouri (and every other state that accepts federal funding) has to conform to these parameters, I find no compelling reason why Ameren Missouri can't conform to them as well.

Q. What is the difference between Ameren Missouri's single-family income eligible program and the LIWAP administered state programs?

A. The costs.

It is substantially more expensive to weatherize a single-family home through Ameren Missouri's MEEIA administered program than it is through a local community action agency who administers the State's LIWAP programs.

[10] Hyman, M. (2024) Inflation Reduction Act Home Energy Rebates Public Meeting. Missouri Division of Energy. https://dnr.mo.gov/document/2024-04-16-presentation-ira-home-energy-rebates-public-meetingpdf

Q. Can you provide an example?

A. Yes. In Case No. EO-2023-0180, Ameren Missouri's last MEEIA prudence review (October 1, 2020 through September 30, 2022) the total income-eligible single family program spend was $6,905,410.

48% of that amount, or $3,297,381, was spent on administrative overhead. Additionally, Ameren Missouri was able to claim a throughput disincentive *and* an additional profit in the form of an earnings opportunity for undertaking these projects. In total, more ratepayer money went into the pockets of the program contractors and utility shareholders then went into low-income single-family homes.

In contrast, the local community action agencies that perform the exact same work with funding from the federal government and utility-funded expenditures allocated from rate cases are only allowed to expend 12% on administrative overhead. The remaining 88% of the funding goes directly into weatherizing homes.

Q. As analyzed in Ameren Missouri's last MEEIA prudence review, was the multi-family program administrative overhead any better?

A. Yes, but funding still leaned-heavily towards administrative overhead. During the same review period, a total of $10,906,430 was spent on the income-eligible multi-family program, with $4,092,384 or roughly 38% going to administrative overhead.

Q. Are there other concerns surrounding the multi-family income-eligible program?

A. Yes. There is a concern that income-eligible renters could be displaced (and/or priced-out) of their rental units as a result of the retrofits. At least that is the federal government's concern. I direct the Commission to the IRA funding parameters surrounding consumer protections for income eligible multi-family domiciles. The Home Energy Rebates (Inflation Reduction Act Sections 50121 & 50122): Required Elements of a Consumer Protection Plan spells out specific consumer protections as it pertains to renters and landlords. They are as follows:

Additional Requirements for Owners of Low-Income Rental Housing

Certain elements of the Consumer Protection Plan will require different processes for renter occupied low-income dwelling units compared with owner-occupied single-family homes and non-low-income rental buildings. States must distinguish in their plans which additional requirements will apply to owners of low-income rental housing.

States must describe how they will comply with the following requirements for dwelling units occupied by low-income renters for at least two (2) years following the receipt of a rebate:

- The owner agrees to rent the dwelling unit to a low-income tenant. This is a minimum requirement and affordability requirements should be commensurate with total rebate amount awarded.
- The owner agrees not to evict a tenant to obtain higher rent tenants based upon the improvements.
- The owner agrees not to increase the rent of any tenant of the building as a result of the energy improvements with the exception of increases to recover actual increases in property taxes and/or specified operating expenses and maintenance costs.
- The owner agrees that if the property is sold within two years of receipt of the rebates, the aforementioned conditions apply to the new owner and must be part of the purchase agreement.
- In the event the owner does not comply, the owner must refund the rebate.
- A specific and verifiable mechanism (e.g., addendum to the lease) is in place for providing tenants with written notice of their rights and their building owner's obligations

- Enforcement and penalties are clear and sufficient to act as a deterrent for owner violations and provide for damages and attorney's fees recoverable by tenants.[11]

Q. Why are those protections in place?

A. To ensure that the investments made by the federal government for low-income renters continue to apply to low-income renters. Restated, a landlord could receive federal subsidies to retrofit their low-income building and then repurpose it for higher income tenants.

Q. Will those protections slow the deployment of energy efficiency upgrades in income-eligible multi-family buildings?

A. They likely will. They will also be difficult to enforce.

Q. Do you support the same protections for Ameren Missouri's income-eligible multi-family program?

A. I do; however, I am open to feedback and adjustments to recognize the inherent trade-offs in attaching additional strings to subsidies and the necessary checks-and-balances to ensure after-the-fact income-eligible renters are not displaced. I realize this is easier said than done, and plan to engage the DOE between now and when I file surrebuttal testimony to determine how exactly they intend to enforce these consumer protections.

Q. Based on Ameren Missouri's last MEEIA prudence review, how did the business social service program perform?

A. Very well, but with considerably less overall funding. During the same review period, Ameren Missouri spent a total of $860,190 on its business social service program, with only $60,986 or roughly 7% going to administrative overhead.

Q. Are there other concerns surrounding the business social service program?

A. This program has been in place for several years at this point and has been expanded to include public schools. I have nothing against direct subsidies for public schools, but I

[11] U.S. Department of Energy. (2024) Home Energy Rebates (Inflation Reducation Act Sections 50121 & 50122): Required Elements of a Consumer Protection Plan. State & Community Energy Programs. file:///C:/Users/markeg/Desktop/cpp-required-elements_040524.pdf

believe their inclusion is above and beyond what was originally intended. To the extent that this program is approved, I recommend that future focus be placed on access and functional needs entities and that measures be extended above and beyond energy efficiency to also include health and safety considerations (this is consistent with utility-funded weatherization tariffs). I also recommend that Ameren Missouri work with specialized non-profits in this field as well as the Missouri Department of Mental Health and Missouri Department of Health and Senior Services. Both entities have expressed interest in working with future program adoption. I believe leaning on existing resources is a great opportunity to empower a unique demographic that is often overlooked.

Q. What is your recommendation for the three income-eligible programs?

A. I have several.

All things being equal, unless Ameren Missouri agrees to cap administrative overhead for all three income-eligible programs below 20% of the allocated budget, I cannot support them. The Commissioners should not support an income-eligible program where the majority of the expenditures are not going to income-eligible customers. The fact that current programs are so out-of-sync with federal parameters set in the IRA for similar programs underscores that there has historically been an inefficient use of ratepayer funds.

I also recommend that the income-eligible multi-family program have certain consumer protections in place that minimize the displacement of low-income renters. On that provision, I am open to feedback and will work to provide suggestions in surrebuttal if necessary for consideration.

Regarding, the business social services program, I believe the program should prioritize access and functional needs organizations moving forward as they represent a uniquely underserved demographic. The funding for this program should be adjusted to provide for health and safety actions similar to what is in place in each of our utilities' LIWAP tariffs.

Finally, I am not opposed to the Commission encouraging Ameren Missouri to fund these programs using a fluid amount across all income-eligible programs. All things being equal, the focus should be on the latter two categories, as opposed to single-family, given the emphasis placed by community action agencies on single-family homes and the large sums of money being allocated from the federal government for that purpose.

Q. Staff raised concerns surrounding the low-income exemption from the MEEIA surcharge. Do you share those concerns?

A. Only minimally. Staff witness Amy Eichholz raises valid points regarding fluid verification. I don't see any of that being insurmountable as long as verification is tied to other forms of verified assistance (e.g., Keeping Current, LIHEAP, Rehousing, etc.). There are no doubt customers that could be eligible for this that are otherwise not currently exempt. This may be rectified through notices attached to bills and proactive efforts through Ameren Missouri's customer service representatives.

VIII. Throughput Disincentive Mechanism

Throughput Disincentive ("TD") Mechanism Problem:

Current and proposed TD mechanism overstates benefits and over collects revenues.

Q. What is throughput disincentive?

A. Utilities have an incentive to increase sales as a means of increasing revenue and profit. Energy efficiency is designed to minimize energy usage. Hence, all things being equal, there is a "disincentive" for the utilities to promote energy efficiency because it impacts their bottom line. To incentivize utilities to promote energy efficiency measures, utilities are allowed to collect an amount to compensate them for the energy they did not sell due to the implementation of their MEEIA programs. The Commission's MEEIA rule defines throughput disincentive as "the electric utility's lost margin revenues that result from decreased retail sales volumes due to its demand-side programs." 20 CSR 4240-20.092(1)(TT).

Q. What is the throughput disincentive mechanism?

A. The MEEIA statute explicitly allows for the recovery of the throughput disincentive (aka “lost revenues”) to make utilities “neutral” on the issue of energy efficiency.[12] As such, MEEIA allows for periodic true-ups based on engineered saving estimates (that are also periodically updated) in the Company’s Technical Resource Manual (“TRM”). After the amount of lost revenues is determined they are then collected from ratepayers as part of the MEEIA surcharge. Determining what exactly was “lost” has been a subject of much debate and complexity (e.g., measure usage patterns, end-use categories, rate class allocations and rate class margin rate, timing of rate cases, and other interactions) over the history of MEEIA, and, as a result the mechanism has been adjusted over time.

Q. What is the Company proposing in this case in regards to its throughput disincentive mechanism?

A. Effectively the same mechanism that was in place during the period of 2019-2021.

Q. What is Staff’s concern regarding the throughput disincentive mechanism?

A. It is difficult to know where even to begin. In short, Staff opposes the mechanism and stresses that the complexity of the mechanism has increased four-fold due to the introduction of time-of-use rates and other confounding variables. I would direct the Commission to the direct testimony of Sarah L.K. Lange and Hari K. Poudel, PhD for more detail on Staff’s position on this issue.

Q. Do you agree with Staff’s proposed throughput disincentive mechanism?

A. Not at the moment. I recognize and agree with the issues Staff raised, and, to be clear, I am not in favor of Ameren Missouri’s proposed methodology. But, I am not convinced which of the two proposals is the lesser evil for ratepayers, as Ms. Lange’s proposal is effectively

[12] § 393.1075.3(2) RSMo.

decoupling. I will update my position in surrebuttal after I have reviewed the Company's (and others if applicable) response to Ms. Lange's proposal.

IX. Evaluation, Measurement, and Verification ("EM&V")

EM&V Problem:

> *Estimating counterfactuals is a "challenging" exercise made more complicated by all the issues plaguing this application.*

Q. What is EM&V?

A. Per the U.S. Department of Energy:

> Evaluation, Measurement and Verification (EM&V) is the collection of methods and processes used to assess the performance of energy efficiency activities so that planned results can be achieved with greater certainty and future activities can be more effective
>
> **Objective of EM&V**
>
> The main objective of an EM&V process is to assess the performance of an energy efficiency program or project and to measure the energy or demand savings and verify if the program is generating the expected level of savings. EM&V data can inform recommendations for improvements in program performance. Having a clear understanding and description of how the program is expected to deliver results is critical to an effective EM&V process. The distinct components of EM&V provide the framework to ensure a successful program implementation . . . . The EM&V process is analogous to the evaluation of business or employee performance. For example, did the company meet its profit or growth objective? What can be done to improve performance? In the energy efficiency market, the EM&V process answers

the question of whether the investments in energy efficiency achieved the objectives expected or required.

Q. How much money is Ameren Missouri suggesting to allocate for EM&V?

A. Ameren Missouri states that it has set the budget for EM&V at no more than 3% of the program costs ($ 370 million), or $ 11.1 million in total, if approved.[13]

Q. How was EM&V handled during the one-year extensions?

A. Parties agreed to have limited EM&V. EM&V was performed but it had very little financial repercussions. This was because the earnings opportunity was based on program spend amounts and not on energy and demand savings achieved.

Q. Why would OPC agree to something like that?

A. The one-year extension portfolios were designed in such a manner as to effectively "trim the fat" from MEEIA programs. That is removing programs that were more aspirational in nature (e.g., educational activities, kits, etc.) and measures in which the market had already moved (e.g., lighting). The parties also placed parameters to incentivize the utility to move toward deep energy and demand savings.

Q. What is Ameren Missouri's request for EM&V in this case?

A. Ameren Missouri is effectively requesting the same functions (impact and process) but under a different format. That is, they are requesting a prospective EM&V, as opposed to a retrospective EM&V. They are also requesting that the evaluation of free riders and spill over be broken down into subcategories for consideration.

Q. What do you mean by free riders?

A. Free riders are customers that would have purchased the energy efficiency measures regardless of the rebates from Ameren Missouri. In determining the earnings opportunity,

[13] Amended Application P. 54, 57.

Ameren Missouri does not get credited savings for customers who were determined to be free riders.

Q. What do you mean by spillover?

A. Spillover refers to energy efficiency actions that only occurred because the customer became aware of the opportunity to save more energy as a result of the rebates received from Ameren Missouri. Stated differently, I get an energy efficient HVAC rebate from Ameren Missouri and then elect to buy non-rebated energy efficient windows. In that scenario, Ameren Missouri would attempt to claim the savings from the window installation as well.

Q. What are the subcategories Ameren Missouri is recommending?

A. Total and partial free ridership and participant (including an additional sub-sub-category of like and unlike) spillover and non-participant spillover.[14]

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[14] Free-ridership is the program savings attributable to free-riders (program participants who would have implemented a program measure or practice in the absence of the program). There are two types of free-riders:

Total free-riders: Participants who would have completely replicated the program measure(s) or practice(s) on their own and at the same time in the absence of the program.

Partial free-riders: Participants who would have partially replicated the program measure(s) or practice(s) by implementing a lesser quantity or lower efficiency level or at a different time.

Spillover refers to additional reductions in energy consumption or demand that are due to program influences beyond those directly associated with program participation. As a result, these savings may not be recorded in the program tracking system and credited to the program. There are generally two types of spillover, participant spillover and non-participant spillover. Each can be described as follows:

Participant spillover: This represents the additional energy savings that are achieved when a program participant—as a result of the program's influence— installs energy efficiency measures or practices outside the efficiency program after having participated. Evaluators have further defined the broad category of participant spillover into the following subcategories:

- Like spillover: Refers to program-induced actions participants make outside the program that are of the same type as those made through the program (at the project site or other sites)
- Unlike spillover: Refers to energy efficiency actions participants make outside the program that are unlike program actions (at the project site or other sites) but that are influenced in some way by the program.

Nonparticipant spillover: This represents the additional energy savings that are achieved when a nonparticipant implements energy efficiency measures or practices as a result of the program's influence (for example, through exposure to the program) but is not accounted for in program savings. Nonparticipant spillover can include both like

Q. What is the net effect of all of these subcategories?

A. More contentious litigation and wasted ratepayer money.

Q. What is your position on including subcategories of free ridership and spillover?

A. To the extent the Commission approves any EM&V, please keep it simple. The net-to-gross should continue considering free riders and spillover. Anything else is arguably an exercise in madness that will lead to a waste of time and money.

Q. What is your position on EM&V moving forward?

A. It is difficult to take a position on what exactly EM&V should be given all of the challenges with this application. If the Commission moves forward with what Ameren Missouri adopted I recommend that the Commission maintain the retrospective EM&V process from Cycle III and not differentiate between subsets of free riders and spillover. I say this because I believe it will be challenging for stakeholders to effectively agree on assumptions on a prospective basis given the amount of duplicative funding streams currently available to customers.

I am willing to have my mind changed on this topic and look forward to parties' responses in rebuttal testimony.

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and unlike spillover, although unlike nonparticipant spillover is often excluded from the calculation of Net to Gross as being too far removed from the programs to justify including.

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X. Earnings Opportunity

Earnings Opportunity ("EO") Problem:

Windfall profits

Q. How much profit is the Company proposing to be rewarded if they meet their self-imposed targets?

A. Ameren Missouri suggests $70,234,362 over three years as an earnings opportunity. This amounts to a 19% return on a $370 million investment.

As to throughput disincentive earnings, if you conservatively assume the throughput disincentive earnings from Cycle III as a rough proxy for this cycle (Cycle III's budget was $347 million), then add another $84 million. If the throughput disincentive earnings are added to Ameren Missouri's proposed earnings opportunity, the return for Ameren Missouri now approaches 42% of the $370 million investment.

Q. Ameren claims that number is reasonable and in line with other utilities. What is your response?

A. In 2025 the Missouri Division of Energy ("DE") will roll-out an energy efficiency rebate program across the State of Missouri. Its funding totals approximately $150 million. Importantly, no more than 20% of that funding can be used on administrative overhead (e.g., marketing, third-party contractors, consumer safeguards, EM&V, etc.). Now this money is not DE's. It comes from taxpayers. Taxpayers, however, will not pay any throughput disincentive (or "lost revenues") and will not be forced to reward DE with a 19% profit for its work (i.e., managing contracts of third-party implementers), but the programs will have to be cost-effective and adhere to consumer protections.

Ameren Missouri's MEEIA program, on the other hand, if approved as drafted, will spend $370 million. There are no caps on administrative overhead, and based on historical precedent, some programs will allocate more funding to administrative overhead than actual measures. Importantly, the $370 million is not capital that Ameren Missouri had to acquire from investors. It comes entirely from ratepayers through the MEEIA surcharge. There are no repercussions to Ameren Missouri if it fails to meet the targets it set. Ameren Missouri will also receive tens of millions of dollars in throughput disincentive.

Notably, when analyzing whether its programs are cost-effective Ameren Missouri does not include costs from an assumed earnings opportunity or throughput disincentive, even though those are costs that are recovered through the MEEIA surcharge. Table 3 provides an illustrative breakdown of these differences.

Table 3: Tale of Two Energy Efficiency Programs

	Missouri Division of Energy IRA	**Ameren Missouri MEEIA Cycle 4**
Total Budget	$150 M	$370 M
Earnings Opportunity	None	$70.25 M[15]
Throughput Disincentive	None	Yes Estimated at greater than $84 M based on Cycle 3 payout
Cap on Administrative Overhead?	Yes, 20%	No

[15] Does not include added carrying costs which would need to be added to this total.

Does the cost-effective ratio include the costs associated with an earnings opportunity and throughput disincentive?	There is no EO or TD cost	No

Q. Table X poses the question "Does the cost-effective ratio include the costs associated with an earnings opportunity and throughput disincentive?" Can you expound on that?

A. Yes. Ameren Missouri's application is full of examples of various California demand-side management tests that break down both costs and assumed benefits. These ratios are misleading because they omit two large cost categories—the earnings opportunity and the throughput disincentive.

Q. What is the impact of that omission?

A. The results of these tests overstate the benefits that actually occur. Ameren Missouri is asking the Commission to collect a profit (earnings opportunity) and lost revenues (throughput disincentive) from customers. By definition those are costs included in the overall surcharge recovery. It only seems appropriate to include *all costs* when determining whether or not a MEEIA program is cost-effective.

Q. What is your recommendation for an earnings opportunity for Ameren Missouri?

A. I don't think Ameren Missouri's portfolio makes sense for the reasons articulated in my direct testimony and this testimony. Later in this testimony I articulate a reasonable path forward which will include an earnings opportunity component. As an alternative option, to the extent the Commission approves any of this filed package I recommend they set the earnings opportunity on a percentage of Ameren Missouri's overall budget, calculated using its authorized return on equity at the time, assuming their self-imposed goals have been met.

It should be noted that this is an extremely generous concession considering that Ameren Missouri is not putting up their own capital and is effectively functioning in the exact same manner as the Division of Energy will be—managing third-party contractors. There is no downside to the utility for moving forward with a MEEIA plan regardless of its formation—only an upside.

XI. Alternative Path Forward

Alternative Path Forward includes approving the following for a two-year abridged cycle:

- *Income-eligible multi-family;*
- *Existing Residential Demand Response;*
- *Business Demand Response;*
- *Modified Residential PAYS program;*
- *Standard, Non-Lighting, Business Program;*
- *No EM&V, TD mechanism remains as is, EO mirrors approved ROE percentage relative to expended budget and called events (similar to one-year extensions); and*
- *Work towards a 3rd-party state-wide administered program across utilities for increased efficiencies for future MEEIA programs.*

Q. Can you articulate your position on Ameren Missouri's filed MEEIA Cycle IV application?

A. Given the challenges outlined in my direct and above in this rebuttal testimony, those in the testimony of OPC witness Mantle, and those identified by the MO PSC Staff the proposed Ameren MEEIA Cycle IV portfolio makes little sense and is clearly not in the public interest.

We can do better than this MEEIA portfolio which largely amounts to a convoluted wealth transfer to shareholders, contractors, evaluators, and Ameren Missouri management. The successive one-year extensions negotiated by the PSC Staff, OPC, and Ameren Missouri were admirable attempts at "making things better." This application erases that progress. It doesn't regress things back to the gamesmanship that took total advantage of ratepayers in Cycle I but it is a regression nonetheless.[16]

We owe the Missouri citizens a better and more economically efficient outcome than this, especially given the current manifestation of high interest rates, a looming recession, political uncertainty, and the seemingly endless rate and surcharge increases with no end in sight. We are also dangerously close to entering into willful ignorance if we fail to recognize all of the available more certain, efficient, and more cost-effective alternatives that exist before us today including utilizing the existing investments we have made (time-of-use rates); the certainty that Ameren Missouri must make plant investments (renewables and fossil fuels); free market alternatives (demand response); the taxpayer-funded subsidies (tax breaks and IRA rebates); and the naturally occurring energy efficiency adoption as a result of market and federal codes and standard changes that are occurring concurrently during the proposed period.

My position is not to approve the application as drafted.

If the Commission elects to dismiss the more cost-effective alternatives and approve some modified version of what Ameren Missouri requests, I have also made recommendations throughout this testimony. Finally, I offer up an entirely different two-year alternative option for the Commission's consideration. I believe this alternative achieves the intent of the MEEIA statute, § 393.1075 RSMo.

Q. What does your alternative plan consist of?

A. My recommendation for a two-year MEEIA-light portfolio are broken down in table 4.

[16] See Case No. EO-2012-0142

Table 4: Two-year $100M Alternative MEEIA-Light Portfolio

Program	Annual Budget	Rationale/Description	Earnings Opportunity
Income-Eligible Multi-family	$10 M	The single-most underserved and overlooked demographic	Currently approved ROE % basis based on spend
Modified Residential PAYS	$10 M	The only residential program that provides a closed-loop opportunity to verify the most efficient savings	Currently approved ROE % basis based on spend
Business Demand Response	$15 M	The most cost-effective program	Based on number and size of events called
Residential Demand Response	$5 M	The second most cost-effective program assuming no further rebated investment	Based on number and size of events called
Business Standard, Non-Lighting	$10 M	A straightforward obligatory business program that only rebates building shell and heating/cooling measures	Currently approved ROE % basis based on spend

Q. What other details do you believe are pertinent to this proposal?

A. I recommend that administrative overhead not exceed 20% for all programs minus PAYS, which I would cap at 35% given the complexity and long-term design. My default option is to leave the throughput mechanism as it is presently, but I reserve the right to amend that in surrebuttal based on parties' rebuttal testimony. I also recommend that no EM&V be conducted, and that Ameren Missouri agree to work with stakeholders over the next two years to formulate a state-wide MEEIA program similar to the State of Massachusetts or

Wisconsin with the goal of aligning all of our investor-owned utilities and potentially even the co-operatives and municipals to the extent they want to participate.

Q. Can you briefly describe why a statewide MEEIA program is in the long-term best interest of Ameren Missouri and the rest of the State?

A. The easiest answer is efficiency gains from economies of scale in purchase power, marketing, and reduced duplicative services. There are much easier ways to accomplish the promotion of demand-side management than what is currently employed. The MEEIA statute and individual utility-sponsored programs may have made sense in 2009, but they do not today. I have a lot to say on this topic, but that is largely beyond the purview of the immediate topic at hand.

Q. Do you have any final comments to make on this topic?

A. Yes. I can confidentially say from experience that the Company will not leave money on the table. Ameren Missouri is too well run of an organization to do that.

Let me repeat that.

Ameren Missouri will not leave money on the table. The MEEIA statute is too rich and affords virtually no risk.

The Company may threaten to stop energy efficiency programs. They may even stop programs for an entire year or more, but they will be back. Missouri's economy will be better off as a result by minimizing these cost inefficiencies. I believe there is a place for MEEIA, but this proposed package of programs and the profits Ameren Missouri requests to administer them are not in the best interest of ratepayers and should be rejected. Cooler heads need to prevail, and constructive dialogue should be engaged. I am confident the utilities will engage in this. Management has a fiduciary responsibility to their shareholders and they would be failing in their role if they left money on the table, or else they will arguably be failing in their fiduciary responsibilities to their shareholders. In my professional experience, that is not how Ameren Missouri operates.

Q. Does this conclude your testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

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

AFFIDAVIT OF GEOFF MARKE

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Geoff Marke, of lawful age and being first duly sworn, deposes and states:

1. My name is Geoff Marke. I am a Chief Economist for the Office of the Public Counsel.

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

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

Geoff Marke
Chief Economist

Subscribed and sworn to me this 26th day of April 2024.

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

Tiffany Hildebrand
Notary Public

My Commission expires August 8, 2027.