STATE OF ILLINOIS

ILLINOIS COMMERCE COMMISSOIN

AMEREN ILLINOIS COMPANY D/B/A AMEREN ILLINOIS, PETITION FOR APPROVAL OF PERFORMANCE AND AND TRACKING METRICS PURSUANT TO 220 ILCS 5/16-108.8(e)	)	**Docket No. 22-0063**

Direct Testimony of

Melissa Whited and Ben Havumaki

On Behalf of

The People of the State of Illinois

AG Exhibit 1.0

March 30, 2022

Table of Contents

I. INTRODUCTION AND QUALIFICATIONS

Q. Please state your name, title, and employer.

A. **Ms. Whited:** My name is Melissa Whited. I am a Principal Associate at Synapse Energy Economics ("Synapse"), located at 485 Massachusetts Avenue, Cambridge, MA 02139.

Mr. Havumaki: My name is Ben Havumaki. I am a Senior Associate at Synapse Energy Economics, located at 485 Massachusetts Avenue, Cambridge, MA 02139.

Q. Please describe Synapse Energy Economics.

A. Synapse Energy Economics is a research and consulting firm specializing in electricity and gas industry regulation, planning, and analysis. Our work covers a range of issues, including economic and technical assessments of demand-side and supply-side energy resources; energy efficiency policies and programs; integrated resource planning; electricity market modeling and assessment; renewable resource technologies and policies; and climate change strategies. Synapse works for a wide range of clients, including state attorneys general, offices of consumer advocates, trade associations, public utility commissions, environmental advocates, the U.S. Environmental Protection Agency (EPA), U.S. Department of Energy (DOE), U.S. Department of Justice, the Federal Trade Commission, and the National Association of Regulatory Utility Commissioners. Synapse has over 30 professional staff with extensive experience in the electricity industry.

Q. Please summarize your professional and educational experience.

A. **Ms. Whited:** I have 12 years of experience in economic research and consulting. At Synapse, I have worked extensively on issues related to utility regulatory models, performance incentive mechanisms, and rate design. In 2015, I was the lead author of a report for the Western Interstate Energy Board titled "Utility Performance Incentive Mechanisms: A Handbook for Regulators," and I have presented on performance incentive mechanisms to the National Association of Regulatory Utility Commissioners, National Governor's Association Learning Lab on New Utility Business Models, Midwest Governors' Association, and the Minnesota e21 Initiative working group.

I have sponsored testimony before the Newfoundland and Labrador Board of Commissioners of Public Utilities, the Georgia Public Service Commission, the Rhode Island Public Utilities Commission, the Public Service Commission of Maryland, the Massachusetts Department of Public Utilities, the Maine Public Utilities Commission, the Public Utilities Commission of New Hampshire, the California Public Utilities Commission, the Hawaii Public Utilities Commission, the Public Service Commission of Utah, the Public Utility Commission of Texas, the Virginia State Corporation Commission, and the Federal Energy Regulatory Commission. I hold a Master of Arts in Agricultural and Applied Economics and a Master of Science in Environment and Resources, both from the University of Wisconsin-Madison. My resume is attached as Exhibit AG 1.1.

Mr. Havumaki: I have five years of experience in the energy field. At Synapse, I focus on ratemaking, rate design, performance-based regulation, and related regulatory issues. I

am also regularly engaged in macroeconomic modeling and benefit-cost analysis (BCA). Prior to being hired by Synapse, I worked for the World Bank on a consulting team that authored a field manual on cost-benefit analysis for practitioners in the developing world.

I have sponsored testimony before the Public Utilities Commission of New Hampshire, the Georgia Public Service Commission, and the Rhode Island Public Utilities Commission. I hold a Master of Arts in Applied Economics from the University of Massachusetts. My resume is attached as Exhibit AG 1.2.

Q. On whose behalf are you testifying in this case?

A. We are testifying on behalf of the People of the State of Illinois represented by the Office of the Attorney General ("AG").

Q. What is the purpose of your testimony?

A. The purpose of our testimony is to address the performance incentive mechanisms (PIMs) and tracking metrics proposed by Ameren Illinois Company ("AIC" or "Ameren").

Q. What materials did you rely on to develop your testimony?

A. The sources for our testimony and exhibits are the Company's direct and revised direct testimony and exhibits, public documents, and responses to discovery requests, as well as our personal knowledge and experience.

Q. Were these exhibits prepared by you or under your direction?

A. Yes. Our testimony and the accompanying exhibits were prepared by us or under our direct supervision and control.

II. SUMMARY OF CONCLUSIONS AND RECOMMENDATIONS

Q. Do you support the Company's PIMs and tracking metrics proposals?

A. No, we do not support the Company's proposals.

Q. Please summarize why you do not support the Company's PBR proposals in the current form.

A. Briefly, and as discussed in more detail below, we cannot support the Company's PIMs or tracking metrics, as they do not further the statutory policies and requirements of Section 16-108.18 of the Public Utilities Act. The flaws in the Company's proposal include:

1. The Company has not articulated what specific incentive issues its proposed PIMs address, why they are needed, how they improve performance over the status quo, or how they will function in the context of a future multi-year rate plan (MRP).
2. The Company's benefit-cost analyses are flawed and do not support the cost-effectiveness of the proposed PIMs.
3. Some of the proposed PIMs focus on undertaking specific types of actions and investments, rather than on achieving meaningful outcomes.
4. Overall, the proposed set of PIMs may result in greater spending than is required to achieve the goals of Section 16-108.18 and will likely further erode affordability.

Q. Please summarize your recommendations.

A. We offer the following recommendations:

1. The Commission should reject the Company's proposed PIMs.

2. While the statute appears to require "symmetrical" PIMs, PIMs for reliability should generally be implemented on a penalty-only basis.

3. Reliability improvements should be targeted selectively in areas of high need, including in environmental justice and equity investment eligible as well as rural communities.

4. While the statute provides that the Commission may approve between 20 and 60 basis points for utility PIMs, we recommend a gradual approach to implementing financial rewards and penalties. Given that this is the first set of PIMs under the new law and the new multi-year rate plan and the lack of data available for the proposed PIMs, the Commission should reduce the total number of PIM basis points if the PIM is not cost-effective, does not provide meaningful customer benefits, or duplicates existing regulatory or statutory incentives.

III. REGULATORY CONTEXT

Section 16-108.18 of the Public Utilities Act

Q. What is the regulatory context for AIC's proposed PIMs and tracking metrics?[1]

A. In Section 16-108.18 of the Public Utilities Act, the General Assembly states its objective to better align utility, customer, community, and environmental goals through a new performance-based ratemaking structure.[2] Although performance incentives and a

[1] 220 ILCS 5/16-108.18.
[2] 220 ILCS 5/16-108.18(a)(3).

performance based formula rate were implemented under the Energy Infrastructure Modernization Act (EIMA), the General Assembly states that:

- The performance measures under EIMA "have **not been sufficiently transformative** in urgently moving electric utilities toward the State's ambitious energy policy goals [emphasis added],"[3] and

- "may have resulted in excess utility spending and guaranteed profits without meaningful improvements in customer experience, rate **affordability,** or **equity** [emphasis added]."[4]

To address these issues, the General Assembly directed a transition to a "comprehensive performance-based regulation framework" to "effectively and efficiently achieve current and anticipated future energy needs of this State, while ensuring affordability for consumers."[5]

Q. What is performance-based regulation (PBR)?

A. Performance based regulation is a departure from traditional cost of service regulation intended to create different incentives for the regulated utility to improve its performance. As described by the Vermont Public Utilities Commission in 1996, PBR "encourages companies to reduce their costs over time, by providing profit incentives to stimulate

[3] 220 ILCS 5/16-108.18(a)(4) (emphasis added).
[4] 220 ILCS 5/16-108.18(a)(6) (emphasis added).
[5] 220 ILCS 5/16-108.18(a)(8)

innovation, efficiency, and service quality improvements." PBR generally consists of both PIMs and MRPs, and it may also include a suite of tracking metrics.[6]

Q. Please define what you mean by PIMs and tracking metrics.

A. A performance incentive mechanism, as defined by statute, is "an instrument by which utility performance is incentivized, which could include a monetary performance incentive," while a performance metric is "a manner of measurement for a particular utility activity."[7] In other words, PIMs are sets of performance metrics with targets and (typically) associated financial implications for meeting or failing to meet a target. PIMs can serve as a useful regulatory mechanism to positively influence utility behavior to advance energy policy goals that are not directly aligned with a distribution company's public service obligations or existing financial incentives.

Tracking metrics are used to collect and monitor data for the purpose of measuring and reporting utility performance and for establishing future performance metrics.[8]

Q. Please define what you mean by an MRP.

A. Typically, MRPs divorce a utility's revenues from its actual costs for a set period of time (the "stay-out period" between rate cases). During this period, utilities have an opportunity to enhance profits by reducing their costs between rate cases. However, this potential shareholder benefit is traditionally balanced by prohibiting the utility from filing

[6] Vermont Public Service Board. Report and Order. Docket No. 5854, Investigation into the Restructuring of the Electric Utility Industry in Vermont. December 31, 1996, page 36. Available at https://puc.vermont.gov/sites/psbnew/files/orders/1996/5854RPT.pdf.
[7] 220 ILCS 5/16-108.18(b)
[8] 220 ILCS 5/16-108.18(e)(3).

another rate case if its costs exceed its revenues during the stay-out period. In this way, MRPs can incentivize the utility to pursue greater cost efficiencies. The utility benefits by retaining all or a portion of the cost savings until the next rate case, when those cost savings are generally passed on to customers.

However, not all MRPs operate in this manner. In some jurisdictions, revenues may be adjusted upward or downward to follow actual costs more closely. Although this provides immediate benefits for customers in instances where the utility's costs are less than its allowed revenue, it also erodes the utility's cost containment incentives, since the utility no longer benefits from cost reductions. Further, if an MRP allows revenues to increase when costs increase, the utility has less incentive to control costs, since cost overruns do not impact the utility's profits. This is the case with the MRP structure outlined in Section 16-108.18 of the Public Utilities Act.

Q. Does the MRP outlined in Section 16-108.18 provide adequate utility cost containment incentives?

A. No, for several reasons. First, the MRP framework establishes annual rates based on utility cost forecasts.[9] This exacerbates information asymmetries, since the utilities always have the most technical knowledge and information regarding their systems, creating significant challenges for regulators to ensure that cost forecasts are reasonable. As explained by the National Regulatory Research Institute:

> "Information asymmetry reflects the relatively less knowledge that a regulator has (relative to the utility's) on the correlation between forecasted

[9] 220 ILCS 5/16-108.18(d)(3)(A).

> costs and utility-management competence. When a utility files a cost forecast, how does the regulator know whether it reflects competent management? The analyst or auditor can evaluate the forecast applying state-of-the-art techniques; still, however, a level of uncertainty remains that leaves unknown the utility's level of managerial competence embedded in the forecast."[10]

Due to the fact that regulators and stakeholders can never completely vet the accuracy of forecasts, utilities have an inherent bias to overstate their costs and understate revenues. This bias has been well-recognized by commissions and by organizations such as the National Regulatory Research Institute (NRRI). The bias exists because utilities are allowed a profit on their investments, and so have an incentive to add to rate base,[11] and because there is little advantage for a utility that underestimates costs since overruns may

[10] Costello, K, 2016, *Multiyear Rate Plans and the Public Interest*, National Regulatory Research Institute, pages 35–36.

[11] Regulated utilities earn a return on capital investments. When a utility's rate of return is greater than the cost of borrowing, utilities have a financial incentive to maximize their capital expenditures in order to increase rate base and thereby increase profits. This is often referred to as the Averch-Johnson effect. As the Federal Communications Commission observed in a 1989 Order:

> Unfortunately, rate of return regulation's greatest strength is also its greatest weakness. As we have previously observed, absolute up-front profit constraints, expressed as a prescribed percentage of allowed earnings on investment, do not prevent carriers from increasing their absolute amount of earnings. ***By expanding its rate base in the course of making investment decisions regarding its regulated activities, a rate of return regulated firm can increase its profits without any change in the allowed rate of return***. ***This phenomenon***, known as the Averch-Johnson effect, ***encourages carriers to make inefficient investment decisions***. Furthermore, rate of return does nothing to encourage carriers to limit expenses, since carrier expenses are flowed directly through to revenue requirements, a phenomenon known as "X-inefficiency."

Federal Communications Commission, *I/M/O Policy and Rules Concerning Rates for Dominant Carriers*, CC Docket No. 87-313, FCC 89-91, 4 FCC Rcd 2873 at para. 77 (April 17, 1989)(citations omitted)(emphasis added).

jeopardize its rate of return and lower profits for shareholders.[12] Thus, cost forecasts are likely to be higher than necessary.

Second, the MRP framework outlined in the statute requires that the utility's actual revenue requirement be adjusted annually to incorporate actual costs, subject to a cap of 105% of the utility's approved forecasted costs (excluding storm costs, new business, investment timing changes, pension/OPEB costs, and changes in interest rates).[13] This removes much of the utility's incentive to seek cost efficiencies since the utility no longer benefits from the cost efficiencies it creates. At the same time, it reduces the incentive to constrain spending relative to a firm cap on multi-year revenue requirements.

Finally, the cap on upward adjustments to the utility's annual revenue requirement is not a hard cap, as the utility can petition the Commission for rate increases above this threshold.[14] Thus, there could be substantially greater adjustments to the utility's annual revenue requirement to reflect changes in costs under the Illinois MRP than under a more traditional model.

Q. How does the framework of the MRP relate to the instant proceeding?

A. PIMs should be designed to work in tandem with the overall cost recovery framework by addressing gaps or balancing any undesirable incentives in the regulatory framework. In this case, the MRP framework provides little in the way of meaningful cost containment

[12] *Id*., page 36.
[13] 220 ILCS 5/16-108.18(d)(6)(A).
[14] 220 ILCS 5/16-108.18(d)(15).

incentives for the reasons identified above. Thus, it is even more important that PIMs promote cost efficiencies to help promote rate affordability and equity.

Q. What are the downsides for customers if PIMs are not designed to work in tandem with an MRP?

A. Poorly designed PIMs may amplify problematic incentives that are embedded in the ratemaking framework. As we noted above, the MRP framework established by Section 16-108.18 is unlikely to provide meaningful cost control incentives. Ameren's proposed PIMs could exacerbate this issue by providing additional incentives for grid investment (increasing the Company's allowed rate of return), and by signaling that any such investment is likely to be viewed favorably by the Commission. Given that Ameren has made substantial investments in its distribution grid over the past decade, including investing nearly $700 million in grid modernization through its EIMA commitments,[15] we are concerned that the additional incentives in the Company's proposed PIMs would largely encourage unnecessary additional spending and rather than ensuring that the Company focuses on needed improvements at least cost.

Principles for PIMs

Q. What principles should be followed when designing or assessing PIMs?

A. Well-designed PIMs can encourage greater alignment between utility and customer interests, allowing both parties to benefit. However, poorly designed PIMs run the risk of handing utilities excess profits while failing to produce meaningful benefits to customers.

[15] Response to 83 Illinois Administrative Code 411, 2020 Annual Report, Ameren Illinois.

To protect the public interest, performance incentive mechanisms should generally comport with the following principles:

1. Promote achievement of state energy policy goals, including affordability objectives, and provide policy benefits that exceed what is expected under status quo operations.

2. Provide a positive financial incentive only for outcomes that would not have been achieved in the absence of the PIM.

3. Be grounded in rigorous benefit-cost analyses that demonstrate net benefits to customers.

4. Reward outcomes, rather than only rewarding investments or other actions.

5. Comply with the specific requirements of the statute.

These principles are generally consistent with those that were developed through the workshop and comment process, which are summarized in the December 1, 2021 report to the Commission.[16]

[16] Performance and Tracking Metrics Workshop Summary: Report to the Commission. Co-authored with Rocky Mountain Institute. December 1, 2021, page 5.

Q. Your first principle is that PIMs should promote achievement of state energy policy goals. What specific policy goals should PIMs promote in Illinois?

A. The General Assembly listed nine specific objectives in Section 16-108.18(c) of the Public Utilities Act, ranging from reliability and resiliency to supplier diversity. Notably, eight out of nine of the objectives specifically identify either equity or affordability[17] issues, indicating that affordability and equity should be paramount when evaluating whether a PIM promotes policy objectives. The relevant text from Section 16-108.18(c) is quoted below, with annotations highlighting equity and affordability.

> **(1)** maintain and improve service reliability and safety, including and particularly in environmental justice, low-income and equity investment eligible communities;
>
> **(2)** decarbonize utility systems at a pace that meets or exceeds State climate goals, while also ensuring the affordability of rates for all customers, including low-income customers;
>
> **(3)** direct electric utilities to make cost-effective investments that support achievement of Illinois' clean energy policies, including, at a minimum, investments designed to integrate distributed energy resources, comply with critical infrastructure protection standards, plans, and industry best practices, and support and take advantage of potential benefits from the electric vehicle charging and other electrification, while mitigating the impacts;
>
> **(4)** choose cost-effective assets and services, whether utility-supplied or through third-party contracting, considering both economic and environmental costs and the effects on utility rates, to deliver high-quality service to customers at least cost;

[17] We include the term "cost-effectiveness" as an indication of affordability.

(5) maintain the affordability of electric delivery services for all customers, including low-income customers;

(6) maintain and grow a diverse workforce, diverse supplier procurement base and, for relevant programs, diverse approved-vendor pools, including increased opportunities for minority-owned, female-owned, veteran-owned, and disability-owned business enterprises;

(7) improve customer service performance and engagement;

(8) address the particular burdens faced by consumers in environmental justice and equity investment eligible communities, including shareholder, consumer, and publicly funded bill payment assistance and credit and collection policies, and ensure equitable disconnections, late fees, or arrearages as a result of utility credit and collection practices, which may include consideration of impact by zip code; and

(9) implement or otherwise enhance current supplier diversity programs to increase diverse contractor participation in professional services, subcontracting, and prime contracting opportunities with programs that address barriers to access. Supplier diversity programs shall address specific barriers related to RFP and contract access, access to capital, information technology and cyber security access and costs, administrative burdens, and quality control with specific metrics, outcomes, and demographic data reported.

Q. Please explain the principle that PIMs should only reward outcomes that would not have been achieved in the absence of the PIM.

A. As discussed above, a key objective of Section 16-108.18 is to ensure affordability and cost-effectiveness. If a utility is rewarded for something that it would have achieved without the PIM, then the PIM does nothing to enhance performance, while increasing costs for ratepayers since they are paying more for what they would have received anyway. Thus, as indicated in the statute, a PIM must be "designed to achieve

incremental improvements over baseline performance values and targets,"[18] and a reward should not be provided if it is not necessary, since doing so would not achieve policy objectives in a least-cost manner.[19]

Similarly, the Company should not be rewarded twice for the same outcome as a result of overlap between PIMs or with other statutory and regulatory incentives or requirements. AG Witness Philip Mosenthal discusses how the Company's peak load reduction and diversity performance incentive mechanisms would result in the Company being rewarded twice for achieving the same outcomes without incremental benefits.

Q. Please explain why a PIM should be grounded in rigorous benefit-cost analysis.

A. As illustrated in the objectives listed in Section 16-108.18(c) of the Public Utilities Act, affordability and cost-effectiveness must be prioritized in the implementation of PBR in Illinois. Without rigorous benefit-cost analysis, it is impossible to determine whether the benefits of utility investments or actions will outweigh their costs. This is of particular concern, given that Ameren's distribution costs have been rising much more rapidly than inflation, as shown in Figure 1.

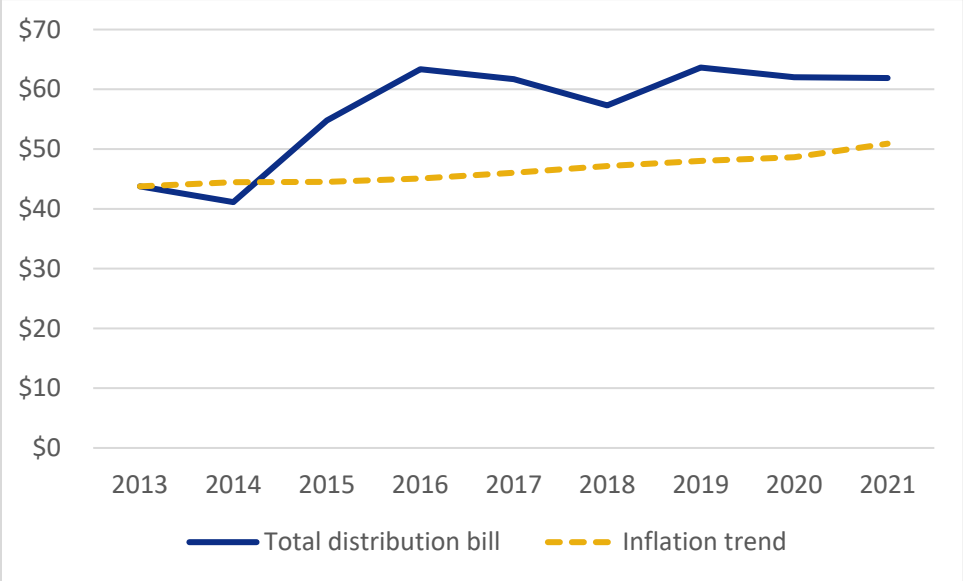
The solid line in Figure 1 shows the average distribution bill for residential customers in Zone 1 during the summer period. The dotted line shows the trend in inflation. The

[18] 220 ILCS 5/16-108.18(e)(2).

[19] The statute explicitly requires that the Commission consider "[t]he extent to which the amount [of performance incentive] is likely to encourage the utility to achieve the performance target in the least cost manner." If a reward is provided where none was needed, the performance target is no longer being achieved in the least cost manner.

divergence between the two lines shows that Ameren's distribution costs increased rapidly from 2014 to 2017 and have remained well above the inflation trend line since.

Figure 1. Actual residential distribution delivery charge and inflation trend, 2013-2021[20]



Although investments under EIMA have no doubt provided benefits to customers, without a benefit-cost analysis grounded in rigorous analysis, it is far from certain that continued aggressive levels of investment will provide net benefits to customers.

Q. Why do you propose that PIMs reward outcomes, rather than investments?

A. There are several reasons why measuring outcomes rather than investments is important.

[20] The residential distribution delivery charge (DS-1) presented is for summer, and represents the rate for Rate Zone III, for years in which rates were differentiated by Rate Zone. Inflation trend represents the summer DS-1 rate for Rate Zone III in 2013, escalated at the rate of inflation, as given by the Consumer Price Index (CPI). Ameren's historical Delivery Charge Informational Sheets may be found at: https://www.ameren.com/illinois/residential/rates/electric-rates#8a06060b-de8e-419a-a1c4-e3fc2dfe19d6 CPI is per the Federal Reserve Bank of St. Louis and may be found at: https://fred.stlouisfed.org/series/CPIAUCSL

- First, it holds the utility accountable for ensuring that the actions or investments it makes produce beneficial results.

- Second, the utility already earns a return on capital investments, which is typically sufficient incentive to undertake beneficial investments, particularly when the utility receives accelerated cost recovery through a multi-year rate plan.

- Finally, the language contained in Section 16-108.18 specifically focuses on outcomes, directing the Commission to:

    - approve performance metrics that "encourage cost-effective, equitable utility achievement of the outcomes described in [subsection (e)]"[21] and

    - "measure outcomes and actual, rather than projected, results where possible."[22]

Q. What specific requirements in the statute must PIMs meet?

A. Section 16-108.18(e)(2) includes multiple requirements for PIMs, including the categories of utility performance that PIMs must address, the maximum and minimum eligible basis points, and requirements for ensuring equitable benefits to environmental justice and equity investment eligible communities. This section of the statute also establishes that PIMs should achieve outcomes cost effectively. The Commission should not approve PIMs that do not meet the requirements in this section of the statute.

[21] (e)(2)
[22] 220 ILCS 5/16-108.18(e)(2)(D).

IV. AMEREN'S PROPOSED PIMS

Summary of Ameren's PIMs Proposal

Q. What PIMs has Ameren proposed?

A. Ameren has proposed PIMs addressing the following eight performance incentive mechanisms:

1) System Average Interruption Duration Index (SAIDI)
2) Incremental peak load reduction
3) Diverse supplier participation
4) Outreach to customers at risk of disconnection
5) Expedited interconnection requests
6) Expeditiously answering customer calls
7) Serving more customers on circuits with self-healing distribution automation schemes
8) Hardening sub-transmission circuits.

We do not address all of these PIMs in our testimony; instead we focus on the SAIDI, distribution automation, and hardening of sub-transmission circuits PIMs (numbers 1, 7, and 8 in the list above). Phillip Mosenthal will present additional testimony on behalf of the People and the National Consumer Law Center identifying concerns with the peak load reduction PIM (number 2) and the diversity PIM (number 3). We expect that other intervenors will provide analysis and alternatives to other PIMs, and our silence on other PIMs does not indicate that we agree with or support Ameren's proposals.

SAIDI PIM (Number 1)

Q. Please describe Ameren's SAIDI PIM.

A. Ameren's proposed SAIDI PIM targets a SAIDI improvement of 1% each year. Half of the PIM's basis points are contingent on ensuring that SAIDI in equity investment eligible communities is no worse than the system-wide average.

Q. Do you have concerns with this PIM?

A. Yes. While we appreciate the Company's consideration of reliability in environmental justice and equity investment eligible communities, we do not support a financial reward for improvements in SAIDI for multiple reasons.

Q. Please explain why you do not support a financial reward for SAIDI improvements.

A. First, maintaining adequate reliability is a core obligation of the utility. Where a utility fails to meet this core obligation, penalties may be appropriate. However, rewards for delivering on a core obligation, particularly when the utility already recovers the cost of reliability investments with a return and little or no regulatory lag, should be avoided.

Second, financial rewards should only be provided to incent behavior the utility would otherwise not take, meaning there is a disincentive or lack of incentive to achieve the desired outcome. Given the return that the utility receives on reliability investments and the expedited cost recovery that the MRP would provide, we do not believe that any additional incentives through this PIM are required to encourage reliability investments.

The utility's existing incentives to undertake reliability-related investments is especially evident given that the utility invested heavily in system improvements over the past

decade under a penalty-only structure, with annual distribution spending increasing from about $427 million per year to about $813 million per year in 2021, and total electric distribution plant in service increasing over the same period from about $4.8 billion to in excess of $7.1 billion. Moreover, the Company forecasts continued high levels of investments into the future, including in excess of $800 million per year for 2022-2024.[23] Improvements in reliability should be expected from this level of spending.

Third, financial rewards should only be provided for significant achievements. Yet Ameren has proposed modest targets for SAIDI that it is likely to meet with very little additional effort, and that will have minimal effect on customers. For example, the Company proposes a baseline of 117 for SAIDI using the average of the years 2019-2021, which results in a less aggressive baseline than if the years 2018-2021 are used. When four years are used to set the baseline (as shown in the table below), the first year's target of 116 minutes is the same as the Company's recent average SAIDI (excluding Major Event Days (MEDs)).[24]

[23] Response to 83 Illinois Administrative Code 411, 2020 Annual Report, Ameren Illinois.
[24] Response to AG 1.03(a).

Table 1. Ameren SAIDI (Excluding MEDs) Performance and Proposed Targets

Year	Actual Performance	Targets
2018	111	
2019	132	
2020	101	
2021	118	
Average 2018-2021	**116**	
2024		116
2025		115
2026		114
2027		113

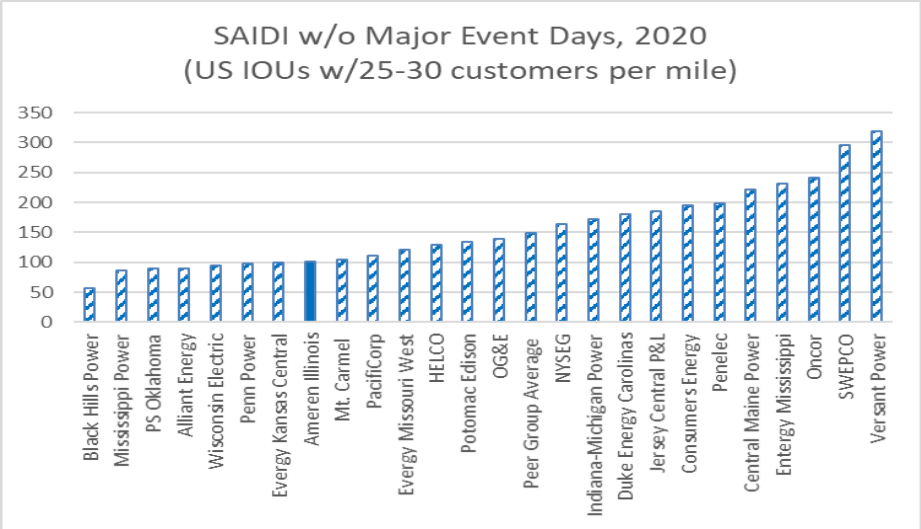
Further, Ameren's actual SAIDI performance varies significantly from year-to-year, with a standard deviation of 13 minutes (after accounting for the trend in annual SAIDI improvements). Ameren's proposed targets are well within this annual fluctuation in SAIDI, which means that stakeholders and the Commission will have little confidence that any improvements or worsening in SAIDI are the result of Company actions, rather than simply the result of chance.

Q. Should the Company pursue additional reliability improvements?

A. It is far from clear whether pursuit of continued reliability improvements on a systemwide basis through further incentives is in the public interest. Future improvements are likely to become increasingly costly, due to the phenomenon of diminishing returns to scale. The Company has already made major investments in its distribution grid over the last decade, which have produced large improvements in

reliability.[25] While it is desirable to have reliable service, this aim must be balanced with the affordability of utility rates. Ameren's reliability performance already compares favorably with peer utilities – placing in the top third of IOUs with similarly dense service territories, as shown in the figure below.

Figure 2. SAIDI for Ameren and other utilities with similarly dense service territories.[26]



Q. How does the concept of diminishing returns to scale relate to the Company's investments?

A. This foundational economic concept suggests that initial improvements tend to be achievable at lower cost compared with subsequent improvements. In the case of Ameren, it is likely that continued improvements in reliability will become costlier to

[25] For example, Ameren's SAIDI (excluding MEDs) for 2010-2012 averaged 146 minutes, while the average of 2018-2021 was 116 minutes – an improvement of 26 percent.
[26] People's Presentation to ICC Grid Plan Workshop. March 1, 2022. Slide 11.

achieve as the Company is completing a ten-year investment that included significant reliability investments.[27]

Q. How have the Company's recent distribution system investments impacted rates?

A. Ameren's recent investments have contributed to the increase in distribution rates in recent years. As we noted earlier, the Company's variable distribution rates have risen far faster than the rate of inflation since 2013 – a period coinciding with significant grid investment.

Q. How can stakeholders and the Commission ensure that PIMs are cost effective?

A. Utilities should be required to put forward rigorous, balanced, and transparent benefit-cost analyses in support of all PIMs. These benefit-cost analyses should account for both the cost of the incentive, and all associated investments and other spending expected to be associated with the PIM. In addition, distributional impacts should also be considered.[28]

Q. Does the Company's benefit-cost analysis demonstrate net benefits for improvements in SAIDI?

A. Although the Company claims that continued investments in reliability will benefit customers, its analysis is not well supported. For example, the Company proposes no specific investments associated with SAIDI, but simply assumes that its trend of reliability investments will continue. This assumption indicates that the Company is

[27] See https://icc.illinois.gov/industry-reports/ameren-infrastructure-investment-plans 2021 investment report, Attachment 2 investment detail p. 8-11.

[28] That is, attention should be paid to which types of customers are likely to reap the benefits of an investment relative to the customers that will pay for the investment.

proposing to be rewarded for actions it would have undertaken without a financial reward.

Q. Do other jurisdictions provide financial rewards for improvements in reliability?

A. Generally not. As discussed in an article published in the *Electricity Journal*,[29] historically most performance measures in PBR plans focused on minimum standards of performance to ensure that cost-cutting measures did not erode utility performance quality. Thus, performance metrics primarily set standards below which the electric company could be financially penalized, as opposed to rewarding utilities for improved performance.[30] This approach is consistent with the existing reliability performance statute in Illinois, which is penalty only.[31]

Q. Do you recommend that the Company pursue reliability improvements on a more targeted basis?

A. A more targeted approach to reliability improvements that considers distributional impacts could produce more equitable outcomes. Earlier we stated that we had concerns about continued pursuit of systemwide reliability improvements. However, there may be cause for seeking more targeted improvements. As a first consideration, Section 16-108.18(e)(1)(C) requires that reliability PIMs ensure equitable benefits to environmental justice (EJ) and equity investment eligible communities. To the extent that customers living in EJ and equity investment eligible communities experience inferior reliability

[29] Ron Davis, "Acting on Performance-Based Regulation," *The Electricity Journal*, May 2000, http://regulationbodyofknowledge.org/wp-content/uploads/2013/03/Davis_Acting_on_Performance.pdf .
[30] *Id.*
[31] 220 ILCS 5/16-108.5(f)

performance, it would be worthwhile for the company to target improvements in those communities.

Q. The Company's SAIDI PIM considers whether customers in equity investment eligible communities have worse reliability performance than the system average. Does this address your concern?

A. Not fully, for several reasons. First, it does not appear that EJ and equity investment eligible communities currently experience worse reliability performance, and thus the Company's proposal is unlikely to result in improvements in reliability in these communities.[32] Second, to the extent that residents of EJ and equity investment eligible communities do experience worse SAIDI performance, we have doubts that simply improving the target indicators to the level of overall system average would provide much quality-of-life benefit to these customers. As we noted earlier, there is already a considerable degree of inter-year variability in the Company's reliability performance, and merely improving SAIDI results by a modest degree would not necessarily yield a noticeable benefit to either the average customer or to customers who experience meaningfully worse-than-average performance.

Q. Who are the customers that you're referring to with "meaningfully worse-than-average performance?"

A. We are referring to the customers whose service is so poor that it exceeds service reliability targets, as set by statute.[33] For residential customers, the thresholds for reporting are either more than six interruptions in each of the last three consecutive years,

[32] See Ameren Illinois' Planning Perspective, "Ameren Presentation" at 17 (March 22, 2022). Available at https://www.icc.illinois.gov/informal-processes/multi-year-integrated-grid-plan-workshops
[33] 220 ILCS 5/16-108.5(f)(4); 83 Ill. Adm. Code 411.140

or more than 18 hours of total interruption duration due to interruptions in each of the last three consecutive years.

Q. Hasn't the Company improved on its performance in this metric?

A. It has. Since the Company began reporting this metric in conjunction with its Modernization Action Plan, its numbers have mostly trended favorably – with two significant exceptions in 2019 and 2020. We thus recommend that the existing metric be maintained as a reporting metric as the Company continues to improve in the targeted domains.

We also recommend that the Company report on residential customers experiencing more than *four* interruptions in each of the last *two* consecutive years, or more than 12 hours of total interruption duration due to interruptions in each of the last *two* consecutive years. This additional metric should be added so as to provide a benchmark against which to compare performance in a new PIM that targets EJ and equity eligible communities, as explained below.

Q. What is your proposal for an alternative PIM?

A. We recommend that a new PIM be adopted based on the number of customers exceeding service reliability targets *who are residents of EJ and equity investment eligible communities*. We further recommend that the minimum service standards be raised, so that this PIM would count all customers with more than four interruptions in each of the last *two* consecutive years, or more than 12 hours of total interruption in each of the last *two* consecutive years. This PIM would not exclude "major event days" which are

excluded from the SAIDI measure, but would count all outages experienced by customers.

Q. Please explain why your suggested PIM is preferred to the Company's SAIDI PIM?

A. As we discussed above, we are concerned that the SAIDI PIM proposed by the Company will not make a meaningful difference in the lives of vulnerable customers, such as those represented by EJ and equity investment eligible communities. We believe that targeting improvements for vulnerable customers experiencing exceptionally poor service would better accomplish the state's energy policy goal of improving equity and make more of a difference in the lives of these customers. Customers residing in EJ and equity investment eligible communities are often more severely impacted when the power does go out since they may have fewer financial resources, have less access to transportation, live in more congested quarters, or otherwise face a range of complicating factors. Thus, it is reasonable that a PIM should focus primarily on these customers.

Q. Why do you suggest that the service standards be raised in your proposed PIM?

A. We believe that the existing standards are too lax, given our concerns about the undue impacts of outages on vulnerable customers. We do note that experiencing four or more outages for two consecutive years, or twelve hours of total outage time for two consecutive years would still be difficult to bear – especially for less-resourced customers who may be more vulnerable to the adverse impacts of power outages.

Q. Is it fair to propose a PIM that includes weather-related outages?

A. Yes. Customers experience both weather-related and "blue-sky" outages, and the burdens on customers are the same in either case. The SAIDI measure specifically

excludes outages related to "major events" such as weather-related outages, limiting its effectiveness in incenting operations and maintenance efforts such as tree trimming and preventative maintenance.[34] This suggested PIM could provide an incentive to encourage storm preparedness, and its limitation to EJ and equity investment eligible communities results in a more limited and targeted risk to the Company while being responsive to the statute's focus on these vulnerable communities.

Q. Should the Company's proposed SAIDI PIM be retained?

A. We recommend that Ameren's systemwide SAIDI PIM be rejected or made penalty-only. To the extent that an Ameren PIM targets broader reliability improvements, it should aim to focus its interventions on areas of high need. Cognizant that Ameren's reliability performance also may vary by region, we suggest that it may be most effective to track the differences among Ameren's four regions[35] and reformulate this PIM to track SAIDI on a regional basis.

Distribution Automation PIM (Number 7)

Q. Please describe the Company's proposed distribution automation PIM.

A. This PIM would reward the Company for installing more distribution level (<15kv) automation schemes with the goal of serving more customers on self-healing feeders, which it claims would improve reliability and resiliency. Ameren reports that it currently

[34] Ameren response to AG DR 1.04 (Confidential).
[35] Ameren Illinois identified four regions – North, East, West, and South. Ameren Illinois, Response to 83 Illinois Administrative Code 411, 2020Annual Report at page 4, May 26, 2021, available at https://icc.illinois.gov/industry-reports/electric-reliability (accessed March 30, 2022).

serves 24% of customers on feeder segments with distribution automation and has set a target of 32% by 2027.[36]

Q. What concerns do you have with Ameren's distribution automation PIM proposal?

A. This proposal is flawed on many fronts. First, the PIM is not cost-effective based on the data provided by the Company. Using the cost benefit analysis provided by Ameren, if it achieves its target, the costs associated with the investments and proposed financial incentive would more than offset the benefits to customers.[37] This would further exacerbate energy affordability issues for customers in contravention to the objectives of the statute and violates the principle that the PIM demonstrate net benefits to customers.

Second, the PIM would reward investments, rather than actual, measurable outcomes, since the metric only addresses the number of customers served on segments with distribution automation, rather than measurable improvements in reliability. While the Company has forecasted the improvements in reliability that would result from additional investments in distribution automation, these benefits appear speculative, as the Company has not provided any supporting data for the assumptions it used in its analysis.[38]

[36] Ameren Exhibit 2.0, page 7.
[37] Ameren Exhibit 3.0 Cottrell Net Benefits Analysis Workpaper (CP), worksheet "Basis Point Adjustments".
[38] Ameren response to AG DR 2-12, Attachment, worksheet "2.12b" states that the outage reductions are "based on avoiding a 140 minute outage for ½ of the new customers added," yet provides no source for these values.

Further, and as previously noted, Section 16-108.18(e)(1)(C) requires that reliability PIMs must ensure equitable benefits to EJ and equity investment eligible communities. This is not addressed under the Company's proposal.

Further, as discussed above, Ameren already has an obligation to provide reliable service. It has included distribution automation in its investment plans since 2012 and spent between $1.8 million and $11.3 million each year on distribution automation.[39] Ameren has not demonstrated why its investment in distribution automation is not an ongoing reliability obligation, and that it is reasonable to be rewarded for delivering on this core function and obligation.

Finally, PIMs should not offer a utility more financial benefit than is necessary to align its performance with the public interest. Ameren earns a return on its capital investments and will continue to have expedited cost recovery under the MRP, and therefore has an incentive to invest in its system to improve reliability. While a PIM can be effective to counter-act a disincentive to act, it is inappropriate to incent the performance of a core function for which the utility is already compensated and incented.

[39] See Ameren Illinois, Response to 83 Illinois Administrative Code 411, 2020Annual Report at page 89, May 26, 2021, available at https://icc.illinois.gov/industry-reports/electric-reliability (accessed March 30, 2022).

Sub-Transmission Hardening PIM (Number 8)

Q. Please describe the Company's proposed sub-transmission hardening PIM.

A. This PIM would reward the Company for hardening 10 or more sub-transmission circuits each year of the four-year performance period, which it claims would improve reliability and resiliency, as well as customer affordability.[40]

Q. What concerns do you have with Ameren's sub-transmission hardening PIM proposal?

A. As with the SAIDI and distribution automation PIMs, Ameren already has an obligation to provide reliable service and earns a return on its capital investments, such as replacing wood poles with fiberglass poles, as the Company is proposing.[41] The MRP will continue to provide Ameren with expedited recovery of its prudently incurred costs (with a return), and thus it is not apparent that this PIM addresses any existing utility disincentive. A PIM for sub-transmission hardening investments is unnecessary and would provide the utility with more financial benefit than is necessary to align its performance with the public interest.

In addition, several of the concerns raised with the Company's proposed distribution automation PIM apply here as well. Specifically:

[40] Ameren Exhibit 2.0, pages 25-26.
[41] *Ibid.*

- This PIM would reward investments, rather than actual, measurable outcomes, and the assumptions embedded in its benefit-cost analysis are not well-supported.[42]

- Ameren has invested significant sums in its distribution system under the current formula rate. The investment that would be required under this PIM is included in the extensive investment Ameren has been making in its distribution system since 2011.[43]

- Section 16-108.18(e)(1)(C) requires that reliability PIMs must ensure equitable benefits to EJ and equity investment eligible communities. This is not addressed under the Company's proposal.

Q. What do you recommend?

A. We recommend that the Commission eliminate both the proposed distribution automation PIM and the sub-transmission hardening PIM altogether. If the utility wishes to target reliability and resiliency through new metrics, it should, at a minimum, strive to improve equity by focusing on benefits to customers who are most vulnerable and do not have financial resources to manage the costs of outages, such as environmental justice and equity investment eligible communities.

[42] Ameren response to AG DR 2-12, Attachment, worksheet "2.12c" states that the benefits are calculated from reducing a 16 hour outage down to 8 hours for 500 customers, yet the Company has not adequately supported its assumptions regarding the duration of the outage or number of customers.

[43] See https://icc.illinois.gov/industry-reports/ameren-infrastructure-investment-plans, 2021 report pages 16-83.

Q. Are there other approaches to reliability that the Company could consider?

A. The Company should also explore more creative means of enhancing reliability and resilience that are not already incentivized through the utility's ROE, such as through partnerships or contracts with third-party providers to provide renewable backup power to community centers and critical infrastructure in environmental justice and equity investment eligible communities as well as in rural areas where reliability is below minimum standards. These alternative approaches could provide measurable financial investment and benefits to the eligible communities and would potentially have the additional benefit of making a more meaningful contribution to resiliency than would the Company's general grid investment plans.

V. AMEREN'S PROPOSED TRACKING METRICS

Q. Please summarize the Companies' tracking metrics proposal.

A. The Company has proposed nine tracking metrics. Three of the proposed metrics correspond to the pollutant reductions performance category, two correspond to grid flexibility, one addresses cost savings, one addresses jobs and workforce, and two relate to grid planning benefits.

Q. Do you support the proposed tracking metrics?

A. In general, we support the proposed tracking metrics, viewing them as low-cost, low-risk mechanisms that may yield useful information. We also note that some of the proposed metrics are quite similar to the PIMs that we discussed above – namely, the ninth tracking metric would measure system average interruption frequency (SAIFI) in environmental justice and equity investment eligible communities, which is similar to the Company's

proposed SAIDI PIM, and the fifth tracking metric would measure deployment of SCADA measurement and control on distribution circuits, which is similar to the seventh proposed PIM regarding investments in system visibility.

Q. Do you have any recommended changes to the tracking metrics?

A. Our primary recommendation is that the reliability reporting metrics break down the data by the same regions Ameren utilizes in its reliability reports under Part 411 of the Commission rules, as discussed on page 28 above.

Q. What is your opinion of the metrics that are similar to the Company's proposed PIMs?

A. We believe that these metrics are more appropriate than the closely-related proposed PIMs. As noted above, we do not support the PIMs as proposed by Ameren, but we would support adoption of the closely-related tracking metrics with the condition that the reliability data be reported by Ameren region.

VI. CONCLUSION AND SUMMARY OF RECOMMENDATIONS

Q. What are your recommendations?

A. We recommend the following:

1. The Commission should reject the Company's proposed PIMs.

2. PIMs for reliability should generally be implemented on a penalty-only basis.

3. Reliability improvements should be targeted selectively in areas of high need, including in environmental justice and equity investment eligible communities.

4. Given that this is the first set of PIMs under the new law and the new multi-year rate plan and the lack of data available for the proposed PIMs, the Commission should reduce the total number of PIM basis points if the PIM is not cost-effective, does not provide meaningful customer benefits, or duplicates existing regulatory or statutory incentives.

Q. Does this conclude your testimony?

A. Yes, it does.